Chairperson: Lisa Baker
Vice Chair: Judith Arce
Commissioners:
Ramon Altamirano
Gregory Contreras
Eric Dye
Jessica Smith
Matt Stone

City Manager: Jeremy Craig

AGENDA

City of Winters Special Planning Commission
Tuesday, August 12, 2025, 6:30 PM
City Council Chambers
City Hall
318 1st Street Winters, CA 95694

(accessible via the Abbey ST. side entrance)

Community Development Department
Contact Phone Number (530) 794-6714
Email: dave.dowswell@cityofwinters.org

The numerical order of items on this agenda is for convenience of reference. Items may be taken out of order upon request of the Planning Commission Chair, Commissioners, or City staff.

6.1 Continued Public Hearing and Consideration by the Winters Planning Commission of the Planning Application for the proposed Farmstead Subdivision, including recommendations to the City Council to certify the Final Environmental Impact Report and make related findings, amend the General Plan amendment to revise land use designations, approve a zoning amendment to revise zoning classifications, approve the Tentative Map, approve the Affordable Housing Plan, and approve the ordinance approving the Development Agreement, for the 61.9 acre parcel located at 29500 Russell Blvd. (APN: 038-050-018-000)

The staff recommends the Planning Commission proceed with the continued public hearing and take public testimony on the Farmstead Subdivision Project, and

1. **Approve "RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS, RECOMMENDING THE CITY COUNCIL CERTIFY "THE FARMSTEAD SUBDIVISION PROJECT" ENVIRONMENTAL IMPACT REPORT (STATE CLEARING HOUSE #2021110261) ADOPTING ENVIRONMENTAL FINDINGS AND A STATEMENT OF OVERRIDING CONSIDERATIONS AND APPROVING A MITIGATION MONITORING AND REPORTING PROGRAM, FOR THE DEVELOPMENT OF THE FARMSTEAD SUBDIVISION PROJECT, PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT"**

2. **Approve "A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THAT THE CITY COUNCIL APPROVE A GENERAL PLAN AMENDMENT TO THE GENERAL PLAN LAND USE DESIGNATION FOR 33.7 ACRES OF LOW DENSITY RESIDENTIAL (LR), 5 ACRES OF OPEN SPACE (OS) AND 14.7 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) TO 23.3 ACRES OF LOW DENSITY (LR), 16.1 ACRES OF MEDIUM DENSITY RESIDENTIAL (MR), 5.7 ACRES OF MEDIUM HIGH DENSITY RESIDENTIAL (MHR), 4.4 ACRES OF HIGH DENSITY RESIDENTIAL (HR), 3.3 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) AND 9.1 ACRES OF OPEN SPACE (OS) FOR A 61.9 ACRE PARCEL FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)"**

3. **Approve "RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE AN ORDINANCE AMENDING the zoning classifications of 33.7 acres of Single Family Residential, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 13.5 acres of PUBLIC Open Space (O-S) ZONE and 14.7 acres of Neighborhood Commercial (C-1) ZONE to 23.3 acres of Single Family Residential, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 16.1 acres of SINGLE Family Residential, 6,000 SQ. FT. AVG. MIN. (R-2-PD) ZONE, 5.7 acres of Multifamily Residential (R-3) ZONE, 4.4 acres of R-4 High Density MULTIFAMILY Residential (R-4) ZONE, 3.3 acres of Neighborhood Commercial (C-1) ZONE, and 9.1 acres of PUBLIC OPEN SPACE (O-S) ZONE, AND ADDING a Planned Development (PD) Overlay zone to, AND APPROVING, A PD PERMIT FOR SAID 16.1 acres of the R-2 ZONE FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)"**

4. **Approve "RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE TENTATIVE MAP NO. 5174, THE DEVELOPMENT AGREEMENT, THE AFFORDABLE HOUSING PLAN FOR THE FARMSTEAD SUBDIVISION PROJECT LOCATED AT 29500 RUSSELL BLVD. (APN: 038-050-018-000)"**

Farmstead Staff Report.doc
PC Resolution Recommending Certification of Farmstead EIR.docx
Exh. A - Findings of Fact and SOC.docx
Exh. B - Draft EIR_pages 1 to 250.pdf
Draft EIR_pages 251 to 500.pdf
Draft EIR_pages 501 to 750.pdf
Draft EIR_pages 751 to 1000.pdf
Draft EIR_pages 1001 to 1104.pdf
Exh. C - Farmstead Final EIR.pdf

PC Resolution General Plan Amendment.docx
PC Resolution with Rezoning Ordinance.docx
PC Resolution_TM, DA, Affordable Housing Plan.docx
Exh. A - Farmstead TM January 10, 2024 Draft EIR.pdf
Exh. B (TM Findings) & Exh. C (TM COA)
Exh. D - Farmstead Development Agreement.docx
Exh. E - Affordable Housing Plan

APPEALS: Any person dissatisfied with the decision of the Planning Commission may appeal this decision by filing a written Notice of Appeal with the City Clerk including payment of the applicable Appeal fee, no later than ten (10) calendar days after the day on which the decision is made.

Pursuant to Section 65009 (b) (2), of the State Government Code "If you challenge any of the above projects in court, you may be limited to raising only those issues you or someone else raised at the public hearing(s) described in this notice, or in written correspondence delivered to the City Planning Commission at, or prior to, this public hearing".

MINUTES: The City does not transcribe its proceedings. Anyone who desires a verbatim record of this meeting should arrange for attendance by a court reporter or for other acceptable means of recordation. Such arrangements will be at the sole expense of the individual requesting the recordation.

PUBLIC REVIEW OF AGENDA, AGENDA REPORTS, AND MATERIALS: Prior to the Planning Commission meetings, copies of the Agenda, Agenda Reports, and other material are available during normal working hours for public review at the Community Development Department. In addition, a limited supply of copies of the Agenda will be available for the public at the meeting. Copies of Agenda, Reports and other material will be provided upon request submitted to the Community Development Department. A copy fee of 25 cents per page will be charged.

Any member of the public may submit a written request for a copy of Planning Commission Agendas to be mailed to them. Requests must be accompanied by a check in the amount of $25.00 for a single packet and $250.00 for a yearly subscription.

OPPORTUNITY TO SPEAK, AGENDA ITEMS: The Planning Commission will provide an opportunity for members of the public to address the Commission on items of business on the Agenda; however, comments are limited to three minutes.

REVIEW OF TAPE RECORDING OF MEETING: Planning Commission Meetings are recorded. Recordings are available for public review on the City of Winters website.

GENERAL NOTES: Meeting facilities are accessible to persons with disabilities. To arrange aid or services to modify or accommodate persons with a disability to participate in a public meeting, contact the City Clerk.

PLANNING COMMISSION
STAFF REPORT

TO: Chairman and Planning Commissioners

DATE:August 12, 2025

FROM: David Dowswell, Contract Planner, AICP
David Storer, Contract Planner, AICP

SUBJECT: Continued Public Hearing and Consideration by the Winters Planning Commission of the Planning Application for the proposed Farmstead Subdivision, including recommendations to the City Council to certify the Final Environmental Impact Report and make related findings, amend the General Plan amendment to revise land use designations, approve a zoning amendment to revise zoning classifications, approve the Tentative Map, approve the Affordable Housing Plan, and approve the ordinance approving the Development Agreement, for the 61.9 acre parcel located at 29500 Russell Blvd. (APN: 038-050-018-000)

SUMMARY OF PROJECT

The application is for a proposed Farmstead Subdivision located on 61.9-acre parcel (APN: 038-050-018). Required approvals include:

- Environmental Impact Report (EIR)
- General Plan Amendments to the City's Land Use Map
- Rezoning Amendments to the City's Zoning Map
- Tentative Subdivision Map
- Development Agreement
- Affordable Housing Plan

SUMMARY OF STAFF RECOMMENDATION

The staff recommends the Planning Commission proceed with the continued public hearing and take public testimony on the Farmstead Subdivision Project, including regarding the following recommendations to the City Council:

1. **Approve "RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS, RECOMMENDING THE CITY COUNCIL CERTIFY "THE FARMSTEAD SUBDIVISION PROJECT" ENVIRONMENTAL IMPACT REPORT (STATE CLEARING HOUSE #2021110261) ADOPTING ENVIRONMENTAL FINDINGS AND A STATEMENT OF OVERRIDING CONSIDERATIONS AND APPROVING A MITIGATION MONITORING AND REPORTING PROGRAM, FOR THE DEVELOPMENT OF THE FARMSTEAD SUBDIVISION PROJECT, PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT"**

2. **Approve "A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THAT THE CITY COUNCIL APPROVE A GENERAL PLAN AMENDMENT TO THE GENERAL PLAN LAND USE DESIGNATION FOR 33.7 ACRES OF LOW DENSITY RESIDENTIAL (LR), 13.5 ACRES OF OPEN SPACE (OS) AND 14.7 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) TO 23.3 ACRES OF LOW DENSITY (LR), 16.1 ACRES OF MEDIUM DENSITY RESIDENTIAL (MR), 5.7 ACRES OF MEDIUM HIGH DENSITY RESIDENTIAL (MHR), 4.4 ACRES OF HIGH DENSITY RESIDENTIAL (HR), 3.3 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) AND 9.1 ACRES OF OPEN SPACE (OS) FOR A 61.9 ACRE PARCEL FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)"**

3. **Approve "RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE AN ORDINANCE AMENDING the zoning classifications of 33.7 acres of Single Family Residential, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 13.5 acres of PUBLIC Open Space (O-S) ZONE and 14.7 acres of Neighborhood Commercial (C-1) ZONE to 23.3 acres of Single Family Residential, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 16.1 acres of SINGLE Family Residential, 6,000 SQ. FT. AVG. MIN. (R-2-PD) ZONE, 5.7 acres of Multifamily Residential (R-3) ZONE, 4.4 acres of R-4 High Density MULTIFAMILY Residential (R-4) ZONE, 3.3 acres of Neighborhood Commercial (C-1) ZONE, and 9.1 acres of PUBLIC OPEN SPACE (O-S) ZONE, AND ADDING a Planned Development (PD) Overlay zone to, AND APPROVING, A PD PERMIT FOR SAID 16.1 acres of the R-2 ZONE FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)"**

4. **Approve** "**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE TENTATIVE MAP NO. 5174, THE DEVELOPMENT AGREEMENT, THE AFFORDABLE HOUSING PLAN FOR THE FARMSTEAD SUBDIVISION PROJECT LOCATED AT 29500 RUSSELL BLVD. (APN: 038-050-018-000)"**

LOCATION
The 61.9 acre parcel located at 29500 Russell Blvd. (APN: 038-050-018-000) and referred to as the "Farmstead Property." (See "Project Site" in Draft EIR).

Figure 3-2
Project Site Boundaries



BACKGROUND
On July 22, 2025, the Planning Commission held a public hearing to take comments from the public on the proposed project and related documents (Note: July 22, 2025, staff report can be found on the City's Planning Commission webpage at https://www.cityofwinters.org/189/Planning-Commission). At the conclusion of the hearing the Planning Commission voted to continue the meeting to a special meeting on August 12, 2025, and gave staff and the applicant direction as to certain documents that were needed and questions to be addressed by the applicant. They included:

1. Provide Resolution with CEQA Findings.
2. Provide updated draft Development Agreement.
3. Explore adding a draft condition requiring "like-for-like" home height, e.g., 1-story homes on the new lots that abut the existing 1-story homes on Almond/Orchard per neighbor preferences and prior precedent.
4. Information on roundabout vs. traffic light: Re-examine feasibility and past analyses, bring additional context.
5. Detail on Safe Routes to School: Map proposed/feasible improvements and funding mechanisms, considering feedback from commissions and public.
6. Bike path on Broadview Lane: Assess feasibility, relevance to this development, and possible inclusion in conditions.
7. Clarity on privacy fencing: Ensure robust buffer between new commercial and residential, confirm masonry wall standard.

8. Dark Sky/lighting policy: Review and possibly strengthen language for project-specific down-lighting and sky-glow minimization.
9. Closure/remediation plan for agricultural well on Lot 15: To be addressed and confirmed in next documentation.

1. Draft CEQA Findings have been prepared and reviewed by the City Attorney.

2. Development Agreement has been updated. The updated Development Agreement includes a number of key items:

   - Proposed duration is fifteen (15) years. Rights to develop are vested during this period.
   - Outlines the obligations of the developer included in the Affordable Housing Plan.
   - Describes payment of any fees.
   - Includes a phasing plan for developing the property in Exhibit F.
   - Describes when flood overlay, sewer and sewer lift-station improvements shall be installed.

3. Explore adding a draft condition requiring "like-for-like" home height, e.g., 1-story homes on the new lots that abut the existing 1-story homes on Almond/Orchard per neighbor preferences and prior precedent. The Conditions of Approval were updated to include a new Condition #48 which would require the lots which abut the Almond Subdivision to have like-for-like homes.

4. Information on roundabout vs. traffic light: Re-examine feasibility and past analyses, bring additional context. Staff reached out to the City's traffic consultant Fehr & Peers.

5. Staff will review the Safe Routes to School report as it relates to this project.

6. Staff assessed the feasibility of extending the bike path proposed for Broadview Lane onto the portion of Broadview Lane within the Almond Orchard Subdivision. In order to extend the bike lane, Broadview Lane would need to be modified so that cars could not park near the curb to allow a bike lane could be added. The developer of Farmstead cannot be required to pay for the cost to extend the bike lane, the City would have to pay.

7. Condition of Approval #45 states, "A seven (7) foot high masonry split-face wall shall be installed separating Lots 76-82 from Commercial Lots B1-B3. Design to be approved by the Community Development Department".

8. In the Draft EIR mentions Policy VIII.D.7 which states, "Lighting in new development, include street lighting, should be designed, installed, and maintained to minimize excess light spillage, unnecessary brightness and glare, and degradation of night sky clarity." Mitigation Measure 4.1-4(a) states," Prior to approval of Improvement Plans, the project applicant shall submit a photometric and proposed lighting plan for the project to the City of Winters Community

Development Department for review and approval, demonstrating that the proposed lighting will not adversely affect adjacent areas. The lighting plan shall include, but not necessarily be limited to, the following provisions:

- Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties;
- Place and shield or screen flood and area lighting needed for construction activities and/or security so as not to disturb adjacent residential areas and passing motorists; and
- For public lighting, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, metal halide lamps, or fluorescent bulbs) or that blink or flash."

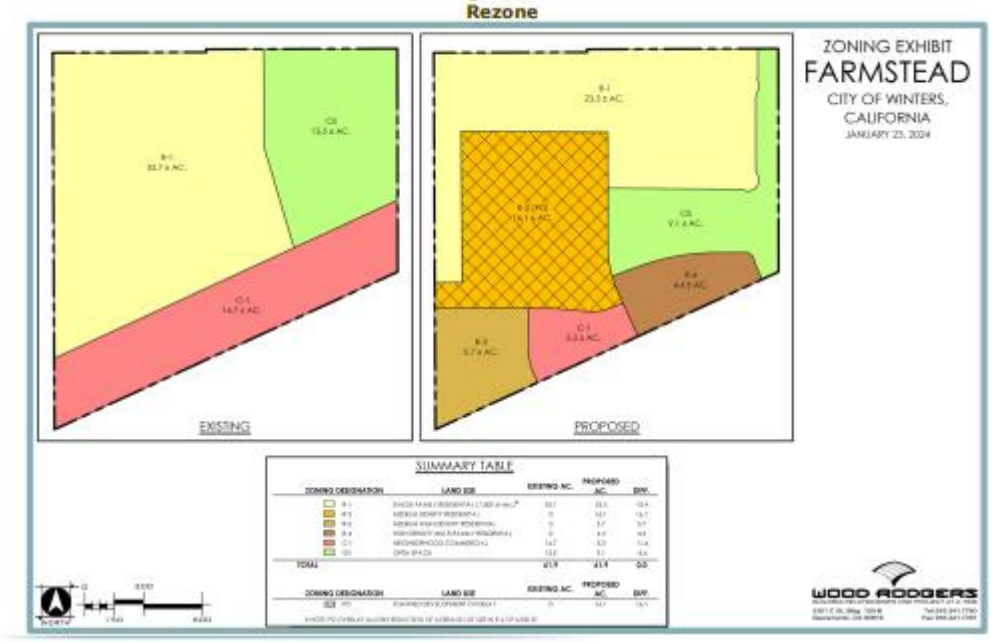
This Mitigation Measure is included as Conditional of Approval #16.

9. In response to this question Condition #90 was added, which states "All agricultural water wells and septic tank systems found on the site shall be destroyed in accordance with Yolo County Health Department standards. The contractor shall obtain all required permits from the county.

Rezoning

The applicant is requesting the current zoning classifications of 33.7 acres of Single Family Residential, 7,000 sq. ft. avg. min. (R-1), 13.5 acres of Public Open Space (O-S) and 14.7 acres of Neighborhood Commercial (C-1) for the Subject Property, be amended to 23.3 acres of Single Family Residential, 7,000 sq. ft. avg. min (R-1), 16.1 acres of Single Family Residential, 6,000 sq. ft. avg. min. with a planned development overlay (R-2-PD), 5.7 acres of Multifamily Residential (R-3), 4.4 acres of High Density Multifamily Residential (R-4), 3.3 acres of Neighborhood Commercial (C-1) and 9.1 acres of Public Open Space (O-S). a Planned Development (PD) Overlay zone would be added to 16.1 acres of Single Family Residential, 6,000 sq. ft. avg. min. to make it a R-2-PD zone that allows lots that are a minimum of 5,000 square feet, have reduced front side and rear yard setbacks.

Figure 3-4
Rezone



STAFF ANALYSIS

Environmental Impact Report (EIR)/CEQA

Through the EIR process the applicant has designed the project to mitigate most of the impacts to a level of less than significant. Three significant unavoidable impacts were identified where either mitigation is not feasible or only partial mitigation is feasible, they are: 1. loss of prime farmland to non-agricultural use, 2. generate greenhouse gas emissions (GHG) that are associated with climate change and, 3. exceed a level of 15 percent below existing regional Vehicle Miles Travelled (VMT) per capita. The final determination of the significance of these impacts and the feasibility of mitigation measures will be made by the City Council as part of the certification of the EIR.

It should be noted that the applicant has indicated all the homes will be fully electric. A condition stating all the homes will be fully electric has been included in the Tentative Map conditions of approval.

General Plan Land Use and Zoning

The amendments to the existing General Plan land use designations will allow for Medium and High Density Residential uses. The Medium Density site will be developed with townhomes/detached patio homes. The applicant is proposing to dedicate the High Density Residential site to the City which will be developed with affordable housing.

As mentioned above, the applicant is requesting a PD, Planned Development Overlay zone for the R-2, Single-Family (6,000) lots to allow a minimum lot size of 5,000 square feet, reductions in the side yard and rear setbacks and an increase in the lot coverage. Staff recommends the Commission recommend the City Council include adding a PD Overlay zone to the R-2 zoned properties to allow the reduction in the lot sizes, side, and rear yard setbacks and an increase in

lot coverage.

Tentative Map

Park and Recreation Dedication and Fees

Section 16.08.020 Standards and formula for dedication of land of the Winters Municipal Code requires 5 acres of land be dedicated for park purposes for every 1,000 population. According to the most recent US Census information the average household size in Winters is 2.97 persons per household multiplied by 329 units or 977 persons or 4.88 acres. The applicant is proposing to meet the park land dedication requirement by dedicating a 2-acre parcel (Lot D) and a 4-acre parcel (Lot E). Lot E will serve a dual purpose of being used as a detention basin during the rainy season and as a park the rest of the year. A portion of Lot D will be developed as a parking lot. All park improvements shall be installed by the applicant/developer prior to issuance of 100th residential building permit.

Future homeowners located on the west side of East Main Street will need to safely cross East Main Street to get to the park (Lots D and E). A lighted/signed pedestrian crosswalk across East Main Street to Lot D shall be provided as approved by the Public Works Manager.

Future Home Designs

The applicant is proposing to have design guidelines. Staff recommends the design guidelines include the following:

- At least fifty (50) percent of the homes have either porches or balconies or both.
- Twenty-five (25) percent of the all the homes shall be wrapped on all four sides with horizontal siding.
- The sides of all homes facing a public street shall be enhanced to help break up the mass.
- All homes shall include stone or other masonry veneer as an accent feature and have a mixture of concrete tile or composition shingled roofs.
- Garage doors shall have a row of windows across the top to allow in natural light, shall be compatible architecturally with the design of the home and shall be painted to match the main body color.
- Roofs shall be a minimum of 5 and 12 pitch.
- At least one design element used on the front elevations of each model of homes shall be used on the other three sides of a home.

Design guidelines shall be prepared and approved by the Community Development Department prior to the designing any of the model homes.

Affordable Housing Plan

As mentioned above, the Affordable Housing Steering Committee (AHSC) met on April 25, 2025, to consider a revised Affordable Housing Plan (AHP). At the meeting the AHSC recommended the applicant amend the revised plan. The AHP has been revised to include the changes recommended by the AHSC. Staff recommends the Planning Commission recommend the City Council approve the amended AHP.

Development Agreement
The applicant/developer has requested there be a development agreement for the Farmstead Subdivision. Section 65864 of the Government Code and Chapter 15.72 of the Winters Municipal Code allow for development agreements. Development agreements are adopted by ordinance at the sole discretion of the City Council.

The Development Agreement includes a number of key items:

1. Proposed duration is fifteen (15) years. Rights to develop are vested during this period.
2. Outlines the obligations of the developer included in the Affordable Housing Plan.
3. Describes payment of any fees.
4. Requires installation of park and improvements prior to issuance of 100th residential unit.
5. Includes a phasing plan for developing the property in Exhibit F.
6. Describes when flood overlay, sewer and sewer lift-station improvements shall be installed.

Lighting
Section 17.72.050(F) of the Zoning Ordinance requires that outdoor lighting in a parking area shall not employ a light source higher than sixteen (16) feet from final grade unless approved by the planning commission and found consistent with the Winters Design Guidelines. The Design Guidelines recommend that night lighting along both I-505 and East Grant Avenue be consistent with the small-town character but should be of an adequate level to ensure public safety and create a sense of security.

PLANNING COMMISSION ACTION
The staff recommends that the Planning Commission proceed with the continued hearing and take the following actions:

1. Approve "RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS, RECOMMENDING THE CITY COUNCIL CERTIFY "THE FARMSTEAD SUBDIVISION PROJECT" ENVIRONMENTAL IMPACT REPORT (STATE CLEARING HOUSE #2021110261) ADOPTING ENVIRONMENTAL FINDINGS AND A STATEMENT OF OVERRIDING CONSIDERATIONS AND APPROVING A MITIGATION MONITORING AND REPORTING PROGRAM, FOR THE DEVELOPMENT OF THE FARMSTEAD SUBDIVISION PROJECT, PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT"

2. Approve "A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THAT THE CITY COUNCIL APPROVE A GENERAL PLAN AMENDMENT TO THE GENERAL PLAN LAND USE DESIGNATION FOR 33.7 ACRES OF LOW DENSITY RESIDENTIAL (LR), 13.5 ACRES OF OPEN SPACE (OS) AND 14.7 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) TO 23.3 ACRES OF LOW DENSITY (LR), 16.1 ACRES OF MEDIUM DENSITY RESIDENTIAL (MR), 5.7 ACRES OF MEDIUM HIGH DENSITY RESIDENTIAL (MHR), 4.4 ACRES OF HIGH

DENSITY RESIDENTIAL (HR), 3.3 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) AND 9.1 ACRES OF OPEN SPACE (OS) FOR A 61.9 ACRE PARCEL FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)"

3. Approve "RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE AN ORDINANCE AMENDING the zoning classifications of 33.7 acres of Single Family Residential, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 13.5 acres of PUBLIC Open Space (O-S) ZONE and 14.7 acres of Neighborhood Commercial (C-1) ZONE to 23.3 acres of Single Family Residential, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 16.1 acres of SINGLE Family Residential, 6,000 SQ. FT. AVG. MIN. (R-2-PD) ZONE, 5.7 acres of Multifamily Residential (R-3) ZONE, 4.4 acres of R-4 High Density MULTIFAMILY Residential (R-4) ZONE, 3.3 acres of Neighborhood Commercial (C-1) ZONE, and 9.1 acres of PUBLIC OPEN SPACE (O-S) ZONE, AND ADDING a Planned Development (PD) Overlay zone to, AND APPROVING, A PD PERMIT FOR SAID 16.1 acres of the R-2 ZONE FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)"

4. Approve "RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE TENTATIVE MAP NO. 5174, THE DEVELOPMENT AGREEMENT, THE AFFORDABLE HOUSING PLAN FOR THE FARMSTEAD SUBDIVISION PROJECT LOCATED AT 29500 RUSSELL BLVD. (APN: 038-050-018-000)"

ATTACHMENTS

A. RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS, RECOMMENDING THE CITY COUNCIL CERTIFY "THE FARMSTEAD SUBDIVISION PROJECT" ENVIRONMENTAL IMPACT REPORT (STATE CLEARING HOUSE #2021110261) ADOPTING ENVIRONMENTAL FINDINGS AND A STATEMENT OF OVERRIDING CONSIDERATIONS AND APPROVING A MITIGATION MONITORING AND REPORTING PROGRAM, FOR THE DEVELOPMENT OF THE FARMSTEAD SUBDIVISION PROJECT, PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT
    a. Findings of Fact and Statement of Overriding Considerations
    b. Draft EIR
    c. Final EIR
B. RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THAT THE CITY COUNCIL APPROVE A GENERAL PLAN AMENDMENT TO THE GENERAL PLAN LAND USE DESIGNATION FOR 33.7 ACRES OF LOW DENSITY RESIDENTIAL (LR), 13.5 ACRES OF OPEN SPACE (OS) AND 14.7 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) TO 23.3 ACRES OF LOW DENSITY (LR), 16.1 ACRES OF MEDIUM DENSITY RESIDENTIAL (MR), 5.7 ACRES OF MEDIUM HIGH DENSITY RESIDENTIAL (MHR), 4.4 ACRES OF HIGH DENSITY RESIDENTIAL (HR), 3.3 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) AND 9.1 ACRES OF OPEN SPACE (OS) FOR A 61.9 ACRE PARCEL FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)

a. General Plan Amendment Findings
b. Existing General Plan Land Use Map
c. Proposed General Plan Land Use Map

C. RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE AN ORDINANCE AMENDING the zoning classifications of 33.7 acres of Single Family Residential, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 13.5 acres of PUBLIC Open Space (O-S) ZONE and 14.7 acres of Neighborhood Commercial (C-1) ZONE to 23.3 acres of Single Family Residential, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 16.1 acres of SINGLE Family Residential, 6,000 SQ. FT. AVG. MIN. (R-2-PD) ZONE, 5.7 acres of Multifamily Residential (R-3) ZONE, 4.4 acres of R-4 High Density MULTIFAMILY Residential (R-4) ZONE, 3.3 acres of Neighborhood Commercial (C-1) ZONE, and 9.1 acres of PUBLIC OPEN SPACE (O-S) ZONE, AND ADDING a Planned Development (PD) Overlay zone to, AND APPROVING, A PD PERMIT FOR SAID 16.1 acres of the R-2 ZONE FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)
    a. Rezoning Ordinance
        i. Rezoning and PD Overlay Findings
        ii. Existing Zoning Map
        iii. Proposed Zoning Map

D. RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE TENTATIVE MAP NO. 5174, THE DEVELOPMENT AGREEMENT, THE AFFORDABLE HOUSING PLAN FOR THE FARMSTEAD SUBDIVISION PROJECT LOCATED AT 29500 RUSSELL BLVD. (APN: 038-050-018-000)
    a. Tentative Map No. 5174
    b. Tentative Map Findings
    c. Conditions of Approval
    d. Development Agreement
    e. Affordable Housing Plan

RESOLUTION NO. 2025-XX

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS, RECOMMENDING THE CITY COUNCIL CERTIFY "THE FARMSTEAD SUBDIVISION PROJECT" ENVIRONMENTAL IMPACT REPORT (*STATE CLEARING HOUSE #2021110261)* ADOPTING ENVIRONMENTAL FINDINGS AND A STATEMENT OF OVERRIDING CONSIDERATIONS AND APPROVING A MITIGATION MONITORING AND REPORTING PROGRAM, FOR THE DEVELOPMENT OF THE FARMSTEAD SUBDIVISION PROJECT, PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

WHEREAS, the City of Winters ("City") received an application from South Market Court Partnership, L.P., and the Mark and Christine Family Trust U/T/A Dated September 21, 1999, for the Farmstead Subdivision Project ("Project"). The Project site is located northwest of the State Route ("SR")128/Timber Crest Road intersection and is Assessor's Parcel Number ("APN") 038-050-018-000; and,

WHEREAS, the Project proposes to develop low, medium and high-density housing, commercial, with park, open space areas, detention basin, roadways and on and off-site improvements; and

WHEREAS, the City identified potential impacts of the Project that could have a direct or indirect reasonably foreseeable physical environmental effects at the time the Project is constructed; and

WHEREAS, construction of the Project will further the City's goals and policies of developing various types of housing, including affordable housing, additional commercial, parks and open space; and

WHEREAS, construction of the Project will require the approval of a Tentative Map (# 5174), General Plan Amendments, and rezoning, including the approval of a Planned Development Overlay and Design Guidelines, and adoption of a Development Agreement; and

WHEREAS, the adoption and construction of the Project is subject to the California Environmental Quality Act ("CEQA"); and

WHEREAS, the City prepared an Initial Study ("IS") and Environmental Impact Report ("EIR"), to evaluate the potential environmental impacts of the Project in conformance with Section 15063 of Title 14 of the California Code of Regulations (the "CEQA Guidelines"); and

WHEREAS, Senate Bill 18 (SB 18) requires that when a when a City proposes or receives an application proposing, adoption or amendment of a general plan or a specific plan, it must contact the California Native American Tribes with traditional lands or places located within the affected geographical area for consultation, and Assembly Bill 52 (AB 52) requires that when a local agency prepares an environmental impact report, it must consult the California Native American Tribes with traditional lands or places located within the affected geographical area. On September 23, 2021, a letter was sent to the Yocha Dehe Wintun Nation, and on October 15, 2021, a response was received from the Yocha Dehe Wintun Nation requesting the incorporation of specific protocols into the project mitigation measures, which have been included

in the EIR; and

WHEREAS, the Draft IS/EIR was circulated initially for a 45-day review period, with the public review period commencing on September 13, 2024, and ending on October 28, 2024; and

WHEREAS, the City received seven (7) written comments on the IS/EIR and worked with the environmental consultant to review and respond to the comments in the Response to Farmstead Subdivision IS/EIR Comments document dated January 2025; and

WHEREAS, pursuant to CEQA Guidelines section 15090, the lead agency's decision-making bodies shall review the Final EIR and certify that the Final EIR was prepared in compliance with CEQA; and

WHEREAS, pursuant to CEQA Guidelines section 15091, the City has prepared certain Findings of Fact and a Statement of Overriding Considerations, as set forth in Exhibit A to this resolution, based upon oral and written evidence presented to it as a whole and the entirety of the administrative record for the Project, which are incorporated herein by this reference; and

WHEREAS, the Final IS/EIR determined the Project and its associated actions could result in potentially significant impacts to Aesthetics, Biological Resources, Cultural Resources, Geology and Soils, Hazards & Hazardous Materials, Hydrology and Water Quality, and Tribal Cultural Resources. However, feasible mitigation measures were identified that will reduce all potentially significant impacts to a less-than-significant level; and

WHEREAS, the EIR identified impacts to Agricultural Resources, Greenhouse Gas Emissions, and Transportation as significant and unavoidable even with implementation of feasible mitigations as described in the Mitigation Monitoring and Reporting Program ("MMRP"), which is Chapter 4 of the Final EIR attached hereto as Exhibit B; and

WHEREAS, on the basis of the findings of the Final IS, the City has prepared a Final EIR in compliance with the CEQA and the CEQA Guidelines promulgated by the California Natural Resources Agency, finding that although the Project and its associated actions could have a significant effect on the environment, the implementation of the mitigation measures identified in the Final IS will reduce significant impacts to a less than significant level and that the remaining significant unavoidable effects are outweighed and found to be acceptable due to the overriding economic, legal, social, technological, or other benefits; and

WHEREAS, the entire Draft EIR and Final EIR were made available for public review pursuant to Public Resources Code section 21091 and were made available to the Planning Commission and City Council. The Draft EIR is attached hereto as Exhibit B and the Final EIR is attached hereto as Exhibit C; and

WHEREAS, public notices describing the City's intent to adopt an EIR and announcing the public and agency review period, were sent to all affected property owners within 300-feet of the boundaries of the Project Site, all public agencies potentially serving the Project or having some oversight of the Project's construction, all responsible agencies and trustee agencies, the County Clerk for Yolo, and all interested parties requesting notice, and published in the *Winters Express*, a newspaper of local circulation on June 4, 2025; and

WHEREAS, public notices describing the Planning Commission's public hearing on the proposed IS/EIR prepared for the Project and its associated actions were sent to all affected property owners within living within 300- feet of the boundaries of the Project Site, all public agencies potentially serving the Project or having some oversight of the Project's construction, all responsible agencies and trustee agencies, the County Clerk for Yolo, and all interested parties requesting notice, and published in the *Winters Express*, a newspaper of local circulation on June 4, 2025; and

WHEREAS, the June 24, 2025 Planning Commission hearing was continued to a regular meeting of the Planning Commission on July 22, 2025; and

WHEREAS, the Planning Commission held a duly noticed public hearing on July 22, 2025, and heard public testimony and continued the public hearing to August 12, 2025; and

WHEREAS, the Planning Commission conducted the continued public hearing on August 12, 2025, heard public testimony and considered and reviewed the Final IS/EIR, MMRP and Statement of Overriding Considerations for this Project and the comments received during the comment period.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission hereby recommends the City Council adopt the Final IS/EIR for the Project and its associated actions based on the following findings:

Section 1. Record

The Record of Proceedings ("Record") upon which the Planning Commission bases its recommendation includes, but is not limited to:

(1) the Final IS/EIR and the appendices and technical reports cited in and/or relied upon in preparing the Final IS/Final EIR,

(2) the staff reports, City files and records and other documents, prepared for and/or submitted to the Planning Commission relating to the Final IS/EIR, the Tentative Subdivision Map, and associated documents,

(3) the evidence, facts, findings and other determinations set forth in this resolution,

(4) the City's General Plan and all amendments thereto and its related EIR,

(5) the Winters Municipal Code,

(6) all designs, plans, studies, data and correspondence submitted by the City in connection with the Final IS/EIR, the Tentative Subdivision Map and associated documents required for the Project, and/or the Project itself,

(7) all documentary and oral evidence received at meetings, and hearings or submitted to the City during the comment period relating to the Final IS/EIR, the Tentative Subdivision Map and associated documents, and/or the Project itself,

(8) all other matters of common knowledge to the Planning Commission including, but not limited to, City, state, and federal laws, policies, rules, regulations, reports, records and projections related

to development within the City and its surrounding areas.

The location and custodian of the records is the City of Winters, Community Development Department, 318 First Street, Winters, California, 95694.

Section 2. Final Environmental Report/Initial Study Considered and Recommended

Based upon information in the Final IS/EIR for the Project, the Record as a whole, and all other matters deemed material and relevant prior to adopting this resolution, the Planning Commission recommends the City Council certify and adopt the Final Is/EIR for the Project and its associated actions based on the following findings:

a. The Proposed Final IS is contained in Appendix A of the Draft EIR attached hereto as Exhibit B and incorporated herein by this reference, and the Final EIR, attached hereto as Exhibit C and incorporated herein by this reference, has been completed in compliance with the CEQA (California Public Resources Code §§ 21000 - 21178); and

b. The Proposed Final IS/EIR was presented to the Planning Commission, which, at a hearing before the public, reviewed and considered the information contained in the Final IS/EIR prior to making a decision regarding the Project and its associated actions; and

c. The Final IS/EIR reflects the City's independent judgment and analysis as Lead Agency.

Section 3. CEQA Findings

The Planning Commission hereby recommends that the City Council find that all significant environmental effects of the Project and its associated actions have been reduced to a less-than-significant level in that all significant environmental effects have been eliminated or substantially with implementation of the mitigation measures identified in the Final IS/EIR. Based upon the foregoing, the Planning Commission recommends that the City Council find and determine that the Project and its associated actions will not have a significant effect upon the environment.

Section 4. Statement of Overriding Considerations

The Planning Commission hereby recommends the City Council adopt the Findings of Fact and Statement of Overriding Considerations, attached hereto as Exhibit A and incorporated herein by this reference, as set forth in the Final IS/EIR. Pursuant to CEQA Guidelines section 15093, the Planning Commission recommends the City Council find that all feasible mitigation measures identified in the Final EIR within the purview of the City will be implemented with the proposed Project, and that the remaining significant unavoidable effects are outweighed and found to be acceptable due to the following specific overriding economic, legal, social, technological, or other benefits based upon the facts set in the CEQA Findings of Fact, the Draft EIR attached hereto as Exhibit B and incorporated herein by this reference, and the Record.

Section 5. Mitigation, Monitoring, and Reporting Program

The Planning Commission hereby recommends the City Council adopt the mitigation measures set forth in the Final IS/EIR and its accompanying MMRP, which is Chapter 4 of the Final EIR attached hereto as Exhibit C. Pursuant to Public Resources Code Section 21081.6, the MMRP is a

program designed to ensure compliance with the project changes and mitigation measures imposed to avoid or substantially lessen the significant effects identified in the Final IS/EIR and said mitigation measures are described in the MMRP.

It is hereby certified that the foregoing Planning Commission Resolution No. 2025-xx was duly adopted on a motion by Commissioner _____ and seconded by Commissioner _____, at a special meeting of the City of Winters Planning Commission held on the 12th day of August 2025, by the following vote:

Ayes:
Noes:
Absent:
Abstain:

_____
Lisa Baker, Chairperson

Attest:

_____
Jeremy Craig, Planning Commission Secretary

EXHIBIT “A”

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS

EXHIBIT “B”

DRAFT EIR

EXHIBIT “C”

FINAL EIR

ATTACHMENT A

RESOLUTION NO. 2025/**

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WINTERS CERTIFYING THE ENVIRONMENTAL IMPACT REPORT FOR THE FARMSTEAD SUBDIVISION PROJECT AS ADEQUATE FOR ADDRESSING THE ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT AND ADOPTING CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS, MITIGATION MEASURES, A MITIGATION MONITORING AND REPORTING PROGRAM, AND A STATEMENT OF OVERRIDING CONSIDERATIONS

WHEREAS, the City of Winters ("City") received an application from Wood Rodgers, Inc. ("Applicant") seeking City approval of the following: a General Plan Amendment (GPA), Rezone, Tentative Subdivision Map, Planned Development (PD), Development Agreement, and an Affordable Housing Plan for the development of a subdivided 329 unit mixed-housing residential community and associated improvements on the approximately 61.9-acre project site, which is known as the Farmstead Subdivision Project ("Project");

WHEREAS, the project site consists of an approximately 61.9-acre project site located to the northwest of the intersection of State Route (SR) 128 and Timber Crest Road in the City of Winters, California. The project site is identified by Yolo County Assessor's Parcel Number (APN) 038-050-018;

WHEREAS, the Project consists of development of a 329 unit residential community which would include a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex; as well as three commercial lots totaling 3.3 acres; 6.9 total acres of park uses; and a new drainage channel. The Project improvements would include, but would not be limited to, parks, landscaping, frontage improvements, circulation improvements, and utility installation. The remainder of the site would be retained as open space;

WHEREAS, the City, as lead agency under the California Environmental Quality Act ("CEQA"), has completed the Final Environmental Impact Report ("Final EIR" or "EIR") for the Project;

WHEREAS, this document contains the City's certification of the EIR, its CEQA findings, and its statement of overriding considerations supporting approval of the Project considered in the EIR. The Final EIR has State Clearinghouse No. 2021110261;

WHEREAS, a Draft Environmental Impact Report ("Draft EIR") was released for a 45-day public and agency review on September 13, 2024. The Draft EIR assesses the potential environmental effects of implementation of the Project, identifies means to eliminate or reduce potential adverse impacts, and evaluates a reasonable range of alternatives to the Project;

WHEREAS, the Final EIR comprises the Draft EIR together with one additional volume that includes the comments on the Draft EIR submitted by interested public agencies, organizations, and members of the public; written responses to the environmental issues raised in those comments; revisions to the text of the Draft EIR reflecting changes made in response to comments and other information; and other minor changes to the text of the Draft EIR. The Final EIR is hereby incorporated in this document by reference.

NOW, THEREFORE, BE IT RESOLVED AND DETERMINED, as follows:

CERTIFICATION OF THE FINAL EIR

The City Council of the City of Winters (the "City Council") certifies that it has been presented with the Final EIR and that it has reviewed and considered the information contained in the Final EIR prior to making the following findings.

Pursuant to CEQA Guidelines Section 15090 (Title 14 of the California Code of Regulations, Section 15090) the City Council certifies that the Final EIR has been completed in compliance with CEQA and the State CEQA Guidelines. The City Council certifies the Final EIR for the Project as described above.

The City Council further certifies that the Final EIR reflects its independent judgment and analysis.

FINDINGS

Having received, reviewed, and considered the Final EIR and other information in the record of proceedings, the City Council hereby adopts the following findings in compliance with CEQA and the CEQA Guidelines:

Part A: Findings regarding the environmental review process and the contents of the Final EIR.

Part B: Findings regarding the environmental impacts of the Project and the mitigation measures for those impacts identified in the Final EIR and adopted as conditions of approval, as well as the reasons that some potential mitigation measures are rejected.

Part C: Findings regarding the feasibility and reasonableness of the range of alternatives evaluated in the Final EIR.

Part D: Statement of Overriding Considerations.

The City Council certifies that these findings are based on full appraisal of all viewpoints, including all comments received up to the date of adoption of these findings, concerning the environmental issues identified and discussed in the Final EIR. The City Council adopts the findings and the statements in Parts A, B, C, and D for the Project.

In addition to the findings regarding environmental impacts and mitigation measures, Part E, below, identifies the custodian and location of the record of proceedings, as required by CEQA.

Part F describes the Mitigation Monitoring and Reporting Program for the Project. As described in Part F, the City Council hereby adopts the Mitigation Monitoring and Reporting Program as set forth in Exhibit A to these findings.

Part A. Environmental Review Process

Project Description

The approximately 61.9-acre project site is located to the northwest of the SR 128/Timber Crest Road intersection in the City of Winters, California. The project site is identified by Yolo County APN 038-050-018. The City's General Plan currently designates the northeast portion of the site as Open Space (OS), the northwest portion as Low Density Residential (LR), and the southern portion as Neighborhood Commercial (NC). The project site's zoning designations currently consist of Open Space (O-S) in the northeast portion of the property, Single Family Residential 7,000 Square-Foot Average Minimum (R-1) in the northwest portion of the site, and Neighborhood Commercial (C-1) in the southern portion. The project site currently serves as an undeveloped agricultural field used for annual row crops.

Surrounding existing uses include an orchard to the north, across Walnut Lane, and light industrial use (Pearce Heating & Air Conditioning, Inc.) to the northeast, across Timber Crest Road; two single-family residences and associated outbuildings to the east, across Timber Crest Road; a Chevron fueling station and convenience store, a Fairfield Inn & Suites, and various fast-food retailers further to the east; a single-family residential neighborhood located to the south, across SR 128; and various commercial uses, a single-family residential neighborhood, and the Walnut Lane 10 parcel to the west. The Walnut Lane 10 parcel has been previously approved by the City for a 54-lot subdivision development and already includes paved neighborhood roads and utility infrastructure.

The proposed project would consist of various residential uses, including a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex; three commercial lots totaling 3.3 acres; 6.9 total acres of park uses; a new drainage channel parallel to the eastern site boundary; internal roadway improvements; associated utility improvements; new landscaping; and frontage improvements. The project would require City approval of a General Plan Amendment (GPA) which would re-configure the boundaries of the project site's existing land use designations to include: Medium Density Residential (MR), Medium High Density Residential (MHR), and High Density Residential (HR), as well as, a Rezone to re-configure the boundaries of the project site's existing zoning designations and add new zoning districts to the site, which would include: Single Family Residential 6,000-Square-Foot Average Minimum (R-2) with a PD overlay, Multifamily Residential (R-3), and High Density Multifamily Residential (R-4). Additionally, the proposed project would require

City approval of a Tentative Subdivision Map, Planned Development (PD), Affordable Housing Plan, and a Development Agreement.

Project Objectives

The following project objectives have been developed by the project applicant:

1. Create a land use plan that contains a mix of land uses and residential product types that satisfy City policies, regulations and expectations as discussed in the Winters General Plan;

2. Provide for a sufficient number of residential units to attract merchant builders and allow a mix of housing choices at varying densities to respond to a range of market segments, including opportunities for rental units and affordable housing consistent with the General Plan and Housing Element;

3. Add new affordable housing units which will assist the City of Winters in achieving the City's Regional Housing Needs Allocation (RHNA) requirements;

4. Include commercially designated land that utilizes the project's frontage and adjacency to Grant Avenue to support the needs of local residents and capture the benefits of drive-by traffic;

5. Designate park and open space areas to provide opportunities for outdoor recreation and exercise to encourage healthy lifestyles for future residents and adjacent neighborhoods;

6. Provide a comprehensively planned neighborhood in an infill location that is effectively served by existing and proposed infrastructure in a manner that allows for efficient, orderly, and logical development and discourages leapfrog or piecemeal development and sprawl;

7. Incorporate drainage detention and water quality features that mitigate for the impacts of the project and also contribute toward the more comprehensive solution identified in the City of Winters Storm Drainage Master Plan Northeast Area;

8. Create a neighborhood that can be logically and efficiently phased to allow for the orderly buildout of the project and installation of improvements to the infrastructure systems;

9. Provide a roadway system that allows connectivity between existing and proposed neighborhoods and parks and for two points of access to allow safe ingress and egress, and service by infrastructure systems and emergency services;

10. Provide a circulation system that interconnects land uses and promotes pedestrian, bicycle, and transit options that will encourage non-vehicular trips, thereby reducing vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions;

11. Create a development that has an overall positive economic impact on the City of Winters and has a neutral or positive fiscal impact on City finances and existing rate payers; and

12. Provide a quality development on East Grant Road that contributes to the beautification of this gateway entry into the City of Winters from the I-505 interchange.

Notice of Preparation and Scoping Meeting

On November 18, 2021, the City issued a Notice of Preparation announcing the intended preparation of the Draft EIR and describing its proposed scope. The Notice of Preparation had a 30-day review period until December 17, 2021. The City held a public scoping meeting for the Draft EIR on November 30, 2021, for the purpose of informing the public and receiving comments on the scope of the environmental analysis to be prepared for the Project. Due to COVID-19 restrictions, the scoping meeting was held online via Zoom. The City received five comments from the public at the scoping meeting.

The City received four comment letters during the comment period as well as one additional comment letter received after the close of the comment period, on the Notice of Preparation, from State, regional, and local agencies and members of the public.

Preparation of the EIR

The City completed the Draft EIR for the Project and, beginning on September 13, 2024, the City made the Draft EIR available for review and comment. A Notice of Availability was published and the period for receipt of comments on the Draft EIR remained open for 45 days. Copies of the Draft EIR document were made available at the City of Winters Community Development Department, located at 318 First Street, Winters, and on the City's website at: www.cityofwinters.org/179/Community-Development. During the comment period, the City received seven comment letters; two from local agencies, one from a private group, and four from members of the public.

The Final EIR was completed and available to commenting public agencies on or before December 13, 2025.

The Final EIR contains all of the comments received during the public comment period, together with written responses to significant environmental issues raised in those comments, which were prepared in accordance with CEQA and the CEQA Guidelines.

The City Council finds and determines that the Final EIR provides adequate, good faith, and reasoned responses to all comments raising significant environmental issues.

Absence of Significant New Information

CEQA Guidelines Section 15088.5 requires that a lead agency recirculate an EIR for further review and comment when significant new information is added to the EIR after public notice is given of the availability of a Draft EIR, but before certification of the Final EIR. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project proponent declines to implement. Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. The Guidelines provide examples of significant new information under this standard, which include the following:

1. A new significant environmental impact that would result from the Project (or any alternative) or from a new mitigation measure proposed to be implemented.

2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the Project (or an alternative), but the Project's proponents decline to adopt it.

4. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Having reviewed all the information in the record, the City Council finds that significant new information has not been added to the Final EIR since public notice was given of the availability of the Draft EIR. New or substantial changes to the Draft EIR were not proposed as a result of the public comment process. The Final EIR responds to comments and makes only minor technical changes, clarifications or additions to the Draft EIR. The minor changes, clarifications, or additions to the Draft EIR do not identify any new significant impacts or substantial increase in the severity of any environmental impacts, and do not include any new mitigation measures that would have a potentially significant impact. Therefore, the City Council finds that recirculation of the EIR is not required.

Differences of Opinion Regarding the Impacts of the Project

In making its determination to certify the Final EIR and to approve the Project, the City Council recognizes that a range of technical and scientific opinion exists with respect to certain environmental issues. The City Council acknowledges that it has acquired an understanding of the range of this technical and scientific opinion by its review of the Draft EIR, the comments received on the Draft EIR and the responses to those comments in the Final EIR, as well as testimony, letters, and reports regarding the Final EIR and its

own experience and expertise in these environmental issues. The City Council acknowledges that it has reviewed and considered, as a whole, the evidence and analysis presented in the Draft EIR, the evidence and analysis presented in the comments on the Draft EIR, the evidence and analysis presented in the Final EIR, the information submitted on the Final EIR, and the reports prepared by the experts who prepared the EIR, by the City's consultants, and by staff, addressing those comments. The City Council acknowledges that it has gained a comprehensive and well-rounded understanding of the environmental issues presented by the Project. The City Council acknowledges that in turn, this understanding has enabled the City Council to make its decisions after weighing and considering the various viewpoints on these important issues. The City Council accordingly certifies that its findings are based on full appraisal of all of the evidence contained in the Final EIR, as well as the evidence and other information in the record addressing the Final EIR.

Part B. Impacts and Mitigation Measures

The City Council acknowledges that these findings provide the written analysis and conclusions of the City Council regarding the environmental impacts of the Project and the mitigation measures identified by the Final EIR and adopted by the City Council as conditions of approval for the Project.

1. Less Than Significant Impacts

The City Council acknowledges that these findings provide the written analysis and conclusions of the City Council regarding the environmental impacts of the Project. The finding of a "no impact," "less than significant," or "less than cumulatively considerable" impact applies to the following in the EIR:

Aesthetics

Impact 4.1-1	Have a substantial adverse effect on a scenic vista.
Impact 4.1-2	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.
Impact 4.1-3	In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from a publicly accessible vantage point) or, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.
Impact 4.1-5	Long-term changes in visual character associated with cumulative development of the proposed project in combination with future buildout of the City of Winters General Plan Study Area.

Impact 4.1-6 Creation of new sources of light or glare associated with cumulative development of the proposed project in combination with future buildout of the City of Winters General Plan Study Area.

Agricultural Resources

Impact 4.2-2 Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

Air Quality, Greenhouse Gas Emissions, and Energy

Impact 4.3-1 Conflict with or obstruct implementation of the applicable air quality plan during project construction.

Impact 4.3-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation.

Impact 4.3-3 Expose sensitive receptors to substantial pollutant concentrations.

Impact 4.3-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Impact 4.3-5 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.

Impact 4.3-6 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact 4.3-8 Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.

Biological Resources

Impact 4.4-9 Have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.

Impact 4.4-11 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact 4.4-14 Cumulative loss of habitat for special-status species.

Cultural and Tribal Cultural Resources

Impact 4.5-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5.

Impact 4.5-5 Cause a cumulative loss of cultural resources.

Land Use and Planning/Population and Housing

Impact 4.6-1 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impact 4.6-2 Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).

Impact 4.6-3 Cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impact 4.6-4 Cumulative unplanned population growth.

Noise

Impact 4.7-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact 4.7-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact 4.7-3 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Impact 4.7-4 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout of the City of Winters.

Public Services and Utilities

Impact 4.8-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant

environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.

Impact 4.8-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.

Impact 4.8-3 Result in substantial adverse physical impacts associated with the provision of new or physically altered school services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or performance objectives.

Impact 4.8-4 Result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact 4.8-5 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or performance objectives for maintenance of public facilities, including roads, or for other government services.

Impact 4.8-6 Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Impact 4.8-7 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Impact 4.8-8 Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Impact 4.8-9 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal,

	State, and local management and reduction statutes and regulations related to solid waste.
Impact 4.8-10	Cumulative impacts to public services.
Impact 4.8-11	Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout in the City of Winters.

Transportation

Impact 4.9-3	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
Impact 4.9-4	Result in inadequate emergency access.

Initial Study

Impact II-b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?
Impact II-c	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?
Impact II-d.	Result in the loss of forest land or conversion of forest land to non-forest use?
Impact III-d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?
Impact VII-a.i-ii.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; or strong seismic ground shaking?
Impact VII-b.	Result in substantial soil erosion or the loss of topsoil?
Impact VII-e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Impact IX-a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
Impact IX-c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
Impact IX-d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
Impact IX-e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?
Impact IX-f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
Impact IX-g.	Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?
Impact X-a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
Impact X-b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
Impact X-c.i-iv.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: Result in substantial erosion or siltation on- or off-site; Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or Impede or redirect flood flows?
Impact X-e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?
Impact XI-a.	Physically divide an established community?
Impact XII-a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Impact XII-b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?
Impact XIII-c.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
Impact XIV-b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?
Impact XV-d.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks?
Impact XVI-a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
Impact XVI-b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?
Impact XX-a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?
Impact XX-b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
Impact XX-c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
Impact XX-d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

2. Significant or Potentially Significant Impacts Mitigated to a Less-Than-Significant Level.

The following significant and potentially significant environmental impacts of the Project, including cumulative impacts, are being mitigated to a less-than-significant level and are set out below. Pursuant to Section 21081(a)(1) of CEQA and Section 15091(a)(1) of the CEQA Guidelines, as to each such impact, the City Council, based on the evidence in the record before it, finds that changes or alterations incorporated into the Project by means of conditions or otherwise, mitigate, avoid or substantially lessen these significant or potentially significant environmental impacts of the Project to a less-than-significant level. The basis for the finding for each identified impact is set forth below.

Aesthetics

Impact 4.1-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Mitigation Measure: The following mitigation measures have been adopted to address this impact:

4.1-4(a) *Prior to approval of Improvement Plans, the project applicant shall submit a photometric and proposed lighting plan for the project to the City of Winters Community Development Department for review and approval, demonstrating that the proposed lighting will not adversely affect adjacent areas. The lighting plan shall include, but not necessarily be limited to, the following provisions:*

- *Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties;*
- *Place and shield or screen flood and area lighting needed for construction activities and/or security so as not to disturb adjacent residential areas and passing motorists; and*
- *For public lighting, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, metal halide lamps, or fluorescent bulbs) or that blink or flash.*

4.1-4(b) *Prior to approval of building permits, the project applicant shall submit final plans that demonstrate the use of appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage to prevent light and glare from adversely affecting motorists on nearby roadways. Proof or compliance shall be submitted to the City of Winters Community Development Department for review and approval.*

Finding: Implementation of Mitigation Measures 4.1-4(a) and 4.1-4(b) would require the preparation of a photometric and proposed lighting plan and demonstrate the use of

appropriate building materials, lighting, and signage which would ensure that new sources of substantial light or glare would not adversely affect day or nighttime views in the project area. Thus, the impact would be reduced to a less-than-significant level.

Biological Resources

Impact 4.4-1 Have a substantial adverse effect, either directly or through habitat modifications, on any special-status plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

Mitigation Measure: The following mitigation measure has been adopted to address this impact:

4.4-1 *If construction has not commenced prior to the first day of spring 2026 (March 20, 2026), a new round of special-status plant surveys shall be conducted by a qualified biologist in areas proposed for disturbance, prior to the commencement of construction.*

The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the California Native Plant Society (CNPS) Botanical Survey Guidelines of the California Native Plant Society, and the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The surveys shall be conducted at the appropriate time of year when plants are in bloom. A report summarizing the results of the protocol-level special-status plant surveys shall be submitted for review and approval to the City of Winters Community Development Department.

If special-status plant species are not found, further mitigation shall not be required. If special-status plants are found within the proposed impact area and they are perennials, such as recurved larkspur, then mitigation shall consist of digging up the plants and transplanting them into a suitable mitigation area prior to construction. If the plant found is an annual, such as dwarf downingia or bearded popcornflower, then mitigation shall consist of collecting seed-bearing soil and spreading it into a suitable constructed wetland at a mitigation site. If special-status plants will be impacted, a mitigation plan shall be developed and approved by the City of Winters Community Development Department. Mitigation for the transplantation/establishment of rare plants shall result in no net loss of individual plants after a five-year monitoring period.

Finding: Implementation of Mitigation Measure 4.4-1 would reduce potential impacts to special-status plant species to a less-than-significant level by requiring completion of preconstruction surveys and implementation of appropriate avoidance measures.

Impact 4.4-2 Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle or giant garter snake.

Mitigation Measure: The following mitigation measures have been adopted to address this impact:

Northwestern Pond Turtle

4.4-2(a) *Yolo HCP/NCCP AMM14: There are no specific design requirements for western pond turtle habitat, however, project proponents must follow design requirements for the valley foothill riparian and lacustrine and riverine natural communities described in AMMs 9 and 10, which require a 100-foot (minimum) permanent buffer zone from the canopy drip-line (the farthest edge on the ground where water will drip from the tree canopy, based on the outer boundary of the tree canopy). If modeled upland habitat will be impacted, a qualified biologist must be present and will assess the likelihood of western pond turtle nests occurring in the disturbance area (based on sun exposure, soil conditions, and other species habitat requirements). If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, the qualified biologist will monitor all initial ground disturbing activity for nests that may be unearthed during the disturbance, and will move out of harm's way any turtles or hatchlings found.*

Giant Garter Snake

4.4-2(b) *Yolo HCP/NCCP AMM15: The project proponent will avoid effects on areas where planning-level surveys indicate the presence of suitable habitat for giant garter snake. To avoid effects on giant garter snake aquatic habitat, the project proponent will conduct no in-water/in-channel activity and maintain a permanent 200-foot non-disturbance buffer from the outer edge of potentially occupied aquatic habitat. If the project proponent cannot avoid effects of construction activities, the project proponent will implement the measures below to minimize effects of construction projects (measures for maintenance activities are described after the following bulleted list).*

- *Conduct preconstruction clearance surveys using USFWS-approved methods within 24 hours prior to construction activities within identified giant garter snake aquatic and adjacent upland habitat. If construction activities stop for a period of two weeks or more, conduct another preconstruction*

clearance survey within 24 hours prior to resuming construction activity.

- *Restrict all construction activity involving disturbance of giant garter snake habitat to the snake's active season, May 1 through October 1. During this period, the potential for direct mortality is reduced because snakes are expected to move and avoid danger.*
- *In areas where construction is to take place, encourage giant garter snakes to leave the site on their own by dewatering all irrigation ditches, canals, or other aquatic habitat (i.e., removing giant garter snake aquatic habitat) between April 15 and September 30. Dewatered habitat must remain dry, with no water puddles remaining, for at least 15 consecutive days prior to excavating or filling of the habitat. If a site cannot be completely dewatered, netting and salvage of giant garter snake prey items may be necessary to discourage use by snakes.*
- *Provide environmental awareness training for construction personnel, as approved by the Conservancy. Training may consist of showing a video prepared by a qualified biologist, or an in-person presentation by a qualified biologist. In addition to the video or in-person presentation, training may be supplemented with the distribution of approved brochures and other materials that describe resources protected under the Yolo HCP/NCCP and methods for avoiding effects.*
- *A qualified biologist will prepare a giant garter snake relocation plan which must be approved by the Conservancy prior to work in giant garter snake habitat. The qualified biologist will base the relocation plan on criteria provided by CDFW or USFWS, through the Conservancy.*
- *If a live giant garter snake is encountered during construction activities, immediately notify the project's biological monitor and USFWS and CDFW. The monitor will stop construction in the vicinity of the snake, monitor the snake, and allow the snake to leave on its own. The monitor will remain in the area for the remainder of the work day to ensure the snake is not harmed or, if it leaves the site, does not return. If the giant garter snake does not leave on its own, the qualified biologist will relocate the snake consistent with the relocation plan described above.*
- *Employ the following management practices to minimize disturbances to habitat:*

    - *Install temporary fencing to identify and protect adjacent marshes, wetlands, and ditches from encroachment from construction equipment and personnel.*

- *Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted practices. No plastic, monofilament, jute, or similar erosion-control matting that could entangle snakes or other wildlife will be permitted.*

Ongoing maintenance covered activities by local water and flood control agencies typically involve removal of vegetation, debris, and sediment from water conveyance canals as well as resloping, rocking, and stabilizing the canals that serve agricultural water users. Maintenance of these conveyance facilities can typically occur only from mid-January through April when conveyance canals and ditches are not in service by the agency, although some drainages are used for storm conveyance during the winter and are wet all year. This timing is during the giant garter snake's inactive period. This is when snakes may be using underground burrows and are most vulnerable to take because they are unable to move out of harm's way. Maintenance activities, therefore, will be limited to the giant garter snake's active season (May 1 to October 1) when possible. All personnel involved in maintenance activities within giant garter snake habitat will first participate in environmental awareness training for giant garter snake, as described above for construction-related activities. To minimize the take of giant garter snake, the local water or flood control agency will limit maintenance of conveyance structures located within modeled giant garter snake habitat (Appendix A, Covered Species Accounts) to clearing one side along at least 80 percent of the linear distance of canals and ditches during each maintenance year (e.g., the left bank of a canal is maintained in the first year and the right bank in the second year). To avoid collapses when resloping canal and ditch banks composed of heavy clay soils, clearing will be limited to one side of the channel during each maintenance year.

For channel maintenance activities conducted within modeled habitat for giant garter snake, the project proponent will place removed material in existing dredged sites along channels where prior maintenance dredge disposal has occurred. For portions of channels that do not have previously used spoil disposal sites and where surveys have been conducted to confirm that giant garter snakes are not present, removed materials may be placed along channels in areas that are not occupied by giant garter snake and where materials will not re-enter the canal because of stormwater runoff.

Modifications to this AMM may be made with the approval of the Conservancy, USFWS, and CDFW.

Finding: Implementation of Mitigation Measures 4.4-2(a) and 4.4-2(b) would reduce potential impacts to northwestern pond turtle and giant garter snake to a less-than-significant level by requiring completion of preconstruction surveys and implementation permanent buffer zones, as well as additional appropriate avoidance measures as outlined in the Yolo Habitat Conservation Plan (Yolo HCP/NCCP)

Impact 4.4-3 Have a substantial adverse effect, either directly or through habitat modifications, on tricolored blackbird.

Mitigation Measure: The following mitigation measure has been adopted to address this impact:

4.4-3 *Yolo HCP/NCCP AMM21: The project proponent will retain a qualified biologist to identify and quantify (in acres) tricolored blackbird nesting and foraging habitat (as defined in Appendix A, Covered Species Accounts) within 1,300 feet of the footprint of the covered activity. If a 1,300-foot buffer from nesting habitat cannot be maintained, the qualified biologist will check records maintained by the Conservancy (which will include CNDDB data, and data from the tricolored blackbird portal) to determine if tricolored blackbird nesting colonies have been active in or within 1,300 feet of the project footprint during the previous five years. If there are no records of nesting tricolored blackbirds on the site, the qualified biologist will conduct visual surveys to determine if an active colony is present, during the period from March 1 to July 30, consistent with protocol described by Kelsey (2008).*

Operations and maintenance activities or other temporary activities that do not remove nesting habitat and occur outside the nesting season (March 1 to July 30) do not need to conduct planning or construction surveys or implement any additional avoidance measures.

If an active tricolored blackbird colony is present or has been present within the last five years within the planning-level survey area, the project proponent will design the project to avoid adverse effects within 1,300 feet of the colony site(s), unless a shorter distance is approved by the Conservancy, USFWS, and CDFW. If a shorter distance is approved, the project proponent will still maintain a 1,300-foot buffer around active nesting colonies during the nesting season but may apply the approved lesser distance outside the nesting season. Adjacent parcels under different land ownership will be

surveyed only if access is granted or if the parcels are visible from authorized areas.

Finding: Implementation of Mitigation Measure 4.4-3 would reduce potential impacts to tricolored blackbird to a less-than-significant level by requiring completion of a preconstruction survey and implementation of appropriate buffer zones and avoidance measures as outlined in the Yolo HCP/NCCP.

Impact 4.4-4 Have a substantial adverse effect, either directly or through habitat modifications, on burrowing owl.

Mitigation Measure: The following mitigation measure has been adopted to address this impact:

4.4-4 *Yolo HCP/NCCP AMM18: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify western burrowing owl habitat (as defined in Appendix A, Covered Species Accounts) within or adjacent to (i.e., within 500 feet of) a covered activity. If habitat for this species is present, additional surveys for the species by a qualified biologist are required, consistent with CDFW guidelines (Appendix L).*

If burrowing owls are identified during the planning-level survey, the project proponent will minimize activities that will affect occupied habitat as follows. Occupied habitat is considered fully avoided if the project footprint does not impinge on a nondisturbance buffer around the suitable burrow. For occupied burrowing owl nest burrows, this nondisturbance buffer could range from 150 to 1,500 feet (Table 4-2, Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls [incorporated as Table 4.4-2 of this chapter]), depending on the time of year and the level of disturbance, based on current guidelines (California Department of Fish and Game 2012). The Yolo HCP/NCCP generally defines low, medium, and high levels of disturbances of burrowing owls as follows.

- *Low: Typically 71-80 dB, generally characterized by the presence of passenger vehicles, small gas-powered engines (e.g., lawn mowers, small chain saws, portable generators), and high-tension power lines. Includes electric hand tools (except circular saws, impact wrenches and similar). Management and enhancement activities would typically fall under this category. Human activity in the immediate vicinity of burrowing owls would also constitute a low level of disturbance, regardless of the noise levels.*

- *Moderate: Typically 81-90 dB, and would include medium- and large-sized construction equipment, such as backhoes, front end loaders, large pumps and generators, road graders, dozers, dump trucks, drill rigs, and other moderate to large diesel engines. Also includes power saws, large chainsaws, pneumatic drills and impact wrenches, and large gasoline-powered tools. Construction activities would normally fall under this category.*
- *High: Typically 91-100 dB, and is generally characterized by impacting devices, jackhammers, compression ("jake") brakes on large trucks, and trains. This category includes both vibratory and impact pile drivers (smaller steel or wood piles) such as used to install piles and guard rails, and large pneumatic tools such as chipping machines. It may also include large diesel and gasoline engines, especially if in concert with other impacting devices. Felling of large trees (defined as dominant or subdominant trees in mature forests), truck horns, yarding tower whistles, and muffled or underground explosives are also included. Very few covered activities are expected to fall under this category, but some construction activities may result in this level of disturbance.*

  The project proponent may qualify for a reduced buffer size, based on existing vegetation, human development, and land use, if agreed upon by CDFW and USFWS (California Department of Fish and Game 2012).

Table 4.4.2
Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls

Time of Year	Level of Disturbance (feet) from Occupied Burrows		
	Low	Medium	High
April 1-August 15	600	1,500	1,500
August 16-October 15	600	600	1,500
October 16-March 31	150	300	1,500

Source: Yolo Habitat Conservancy. Yolo County Habitat Conservation Plan/Natural Community Conservation Plan [Table 4-2]. April 2018.

If the project does not fully avoid direct and indirect effects on nesting sites (i.e., if the project cannot adhere to the buffers described above), the project proponent will retain a qualified biologist to conduct preconstruction surveys and document the presence or absence of western burrowing owls that could be affected by the

covered activity. Prior to any ground disturbance related to covered activities, the qualified biologist will conduct the preconstruction surveys within three days prior to ground disturbance in areas identified in the planning-level surveys as having suitable burrowing owl burrows, consistent with CDFW preconstruction survey guidelines (Appendix L, Take Avoidance Surveys). The qualified biologist will conduct the preconstruction surveys three days prior to ground disturbance. Time lapses between ground disturbing activities will trigger subsequent surveys prior to ground disturbance.

If the biologist finds the site to be occupied by western burrowing owls during the breeding season (February 1 to August 31), the project proponent will avoid all nest sites, based on the buffer distances described above, during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups that forage on or near the site following fledging). Occupancy of burrowing owl habitat during preconstruction surveys is confirmed at a site when at least one burrowing owl or sign (fresh whitewash, fresh pellets, feathers, or nest ornamentation) is observed at or near a burrow entrance. Construction may occur inside of the disturbance buffer during the breeding season if the nest is not disturbed and the project proponent develops an AMM plan that is approved by the Conservancy, CDFW, and USFWS prior to project construction, based on the following criteria:

- *The Conservancy, CDFW, and USFWS approves the AMM plan provided by the project proponent.*
- *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).*
- *The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.*
- *If the qualified biologist identifies a change in owl nesting and foraging behavior as a result of construction activities, the qualified biologist will have the authority to stop all construction related activities within the non-disturbance buffers described above. The qualified biologist will report this information to the Conservancy, CDFW, and USFWS within 24 hours, and the Conservancy will require that these activities immediately cease within the non-disturbance buffer. Construction cannot resume within the buffer until the adults and juveniles from the occupied burrows have moved out of the project site, and the Conservancy, CDFW, and USFWS agree.*

- *If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the project proponent may remove the nondisturbance buffer, only with concurrence from CDFW and USFWS. If the burrow cannot be avoided by construction activity, the biologist will excavate and collapse the burrow in accordance with CDFW's 2012 guidelines to prevent reoccupation after receiving approval from the wildlife agencies.*

If evidence of western burrowing owl is detected outside the breeding season (December 1 to January 31), the project proponent will establish a non-disturbance buffer around occupied burrows, consistent with Table 4-2 (incorporated as Table 4.4-2 of this chapter), as determined by a qualified biologist. Construction activities within the disturbance buffer are allowed if the following criteria are met to prevent owls from abandoning important overwintering sites:

- *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).*
- *The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.*
- *If there is any change in owl roosting and foraging behavior as a result of construction activities, these activities will cease within the buffer.*
- *If the owls are gone for at least one week, the project proponent may request approval from the Conservancy, CDFW, and USFWS for a qualified biologist to excavate and collapse usable burrows to prevent owls from reoccupying the site if the burrow cannot be avoided by construction activities. The qualified biologist will install one-way doors for a 48-hour period prior to collapsing any potentially occupied burrows. After all usable burrows are excavated, the buffer will be removed and construction may continue.*

Monitoring must continue as described above for the nonbreeding season as long as the burrow remains active.

A qualified biologist will monitor the site, consistent with the requirements described above, to ensure that buffers are enforced and owls are not disturbed. Passive relocation (i.e., exclusion) of owls has been used in the past in the Plan Area to remove and exclude owls from active burrows during the nonbreeding season (Trulio 1995). Exclusion and burrow closure will not be conducted

during the breeding season for any occupied burrow. If the Conservancy determines that passive relocation is necessary, the project proponent will develop a burrowing owl exclusion plan in consultation with CDFW biologists. The methods will be designed as described in the species monitoring guidelines (California Department of Fish and Game 2012) and consistent with the most up-to-date checklist of passive relocation techniques. This may include the installation of one-way doors in burrow entrances by a qualified biologist during the nonbreeding season. These doors will be in place for 48 hours and monitored twice daily to ensure that the owls have left the burrow, after which time the biologist will collapse the burrow to prevent reoccupation. Burrows will be excavated using hand tools. During excavation, an escape route will be maintained at all times. This may include inserting an artificial structure, such as piping, into the burrow to prevent collapsing until the entire burrow can be excavated and it can be determined that no owls are trapped inside the burrow. The Conservancy may allow other methods of passive or active relocation, based on best available science, if approved by the wildlife agencies. Artificial burrows will be constructed prior to exclusion and will be created less than 300 feet from the existing burrows on lands that are protected as part of the reserve system.

Finding: Implementation of Mitigation Measure 4.4-4 would reduce potential impacts to western burrowing owl to a less-than-significant level by requiring completion of planning-level surveys for the presences of species on site and implementation of appropriate avoidance measures and/or relocation as outlined in the Yolo HCP/NCCP.

Impact 4.4-5 Have a substantial adverse effect, either directly or through habitat modifications, on Swainson's hawk or white-tailed kite.

Mitigation Measure: The following mitigation measure has been adopted to address this impact:

4.4-5 *Yolo HCP/NCCP AMM16: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify any nesting habitat present within 1,320 feet of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.*

If a construction project cannot avoid potential nest trees (as determined by the qualified biologist) by 1,320 feet, the project proponent will retain a qualified biologist to conduct preconstruction surveys for active nests consistent, with guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000), between

March 15 and August 30, within 15 days prior to the beginning of the construction activity. The results of the survey will be submitted to the Conservancy and CDFW. If active nests are found during preconstruction surveys, a 1,320-foot initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. Up to 20 Swainson's hawk nest trees (documented nesting within the last 5 years) may be removed during the permit term, but they must be removed when not occupied by Swainson's hawks.

For covered activities that involve pruning or removal of a potential Swainson's hawk or white-tailed kite nest tree, the project proponent will conduct preconstruction surveys that are consistent with the guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000). If active nests are found during preconstruction surveys, no tree pruning or removal of the nest tree will occur during the period between March 1 and August 30 within 1,320 feet of an active nest, unless a qualified biologist determines that the young have fledged and the nest is no longer active.

Finding: Implementation of Mitigation Measure 4.4-5 would reduce potential impacts to Swainson's hawk and white-tailed kite to a less-than-significant level by requiring completion of planning level surveys and implementation of appropriate avoidance measures as outlined in the Yolo HCP/NCCP.

Impact 4.4-6 Have a substantial adverse effect, either directly or through habitat modifications, on other nesting birds and raptors protected under the MBTA and CFGC, including northern harrier.

Mitigation Measure: The following mitigation measure has been adopted to address this impact:

4.4-6 The removal of any buildings, trees, or shrubs shall occur from September 1 through December 15, outside of the avian nesting

season. If removal of buildings, trees, or shrubs occurs, or construction begins between February 1 and August 31 (nesting season for passerine or non-passerine land birds) or between December 15 and August 31 (nesting season for raptors), a nesting bird survey shall be performed by a qualified ornithologist throughout the project site and all accessible areas within a 500-foot radius of proposed construction areas, at most, 14 days prior to the removal or disturbance of a potential nesting structure, tree, or shrub, or the initiation of other construction activities. During this survey, a qualified biologist shall inspect all potential nesting habitat (trees, shrubs, structures, grasslands, etc.) for nests in and immediately adjacent to the impact areas. If a break in construction activity of more than 14 days occurs, then subsequent surveys shall be conducted. A report of the survey findings shall be provided to the City of Winters Community Development Department and CDFG within 30 days of the completed survey and is valid for one construction season. If nests are not found, further mitigation is not required.

If active raptor nests are found, construction activities shall not take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot non-disturbance buffer shall be established. The non-disturbance buffers may be reduced if a smaller, sufficiently protective buffer is approved by the City after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, the nest occupants' habituation to existing or ongoing activity, and nest concealment (i.e., whether visual or acoustic barriers occur between the proposed activity and the nest). A qualified biologist may visit the nest, as needed, to determine when the young have fledged the nest and are independent of the site or the nest can be left undisturbed until the end of the nesting season.

If the nest buffer is reduced but construction activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest in a way that would be considered a result of construction activities, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the agitated behavior. The revised non-disturbance buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the City.

Construction activities may only resume within the non-disturbance buffer after a follow-up survey by the biologist has been conducted

and a report has been prepared indicating that the nest (or nests) are not active any longer, and that new nests have not been identified.

Finding: Implementation of Mitigation Measure 4.4-6 would reduce potential impacts to nesting birds and raptors to a less-than-significant level by requiring completion of a nesting bird survey should any building, tree, or shrub removal to occur during the avian nesting season (between December 15 and August 31), and implementation of appropriate avoidance measures.

Impact 4.4-7 Have a substantial adverse effect, either directly or through habitat modifications, on special-status roosting bats.

Mitigation Measure: The following mitigation measure has been adopted to address this impact:

4.4-7 Prior to the commencement of construction activities, a qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees within the proposed impact footprint and within the project vicinity. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. The results of the assessment shall be submitted for review and approval to the City of Winters Community Development Department.

- *If potential roosting habitat is identified (cavities in trees) within the areas proposed for impact, the biologist shall survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys shall be conducted using methods that are considered acceptable by bat experts after consultation with CDFW. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof.*
- *If roosting bats are identified within any of the trees planned for removal, or if presence is assumed, the trees shall be removed outside of pup season, only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree.*

- *Additionally, all other tree removal shall be conducted from January through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.*
- *If roosting bats are identified within any trees planned for removal, a bat exclusion plan shall be prepared by a qualified bat biologist describing the methods to be used to humanely exclude bats prior to disturbance. The plan shall be submitted for review and approval to the City of Winters Community Development Department after consultation with CDFW and shall be implemented prior to the start of construction.*
- *The requirements for the bat expert and City to consult with CDFW prior to approving survey methods and a bat exclusion plan shall be satisfied either where CDFW responds to requests for consultation within 30 days of the requests or where the bat expert and City have attempted to consult with CDFW but CDFW has failed to respond to the request within 30 days of the placement of the request.*

Finding: Implementation of Mitigation Measure 4.4-7 would reduce potential impacts to special status roosting bats to a less-than-significant level by requiring completion of a bat habitat assessment and implementation of appropriate avoidance measures.

Impact 4.4-8 Have a substantial adverse effect, either directly or through habitat modifications, on American badger.

Mitigation Measure: The following mitigation measure has been adopted to address this impact:

4.4-8 *Within 48 hours prior to the commencement of construction, a preconstruction survey for American badger shall be conducted by a qualified biologist. A report summarizing the results of the preconstruction survey shall be submitted for review and approval to the City of Winters Community Development Department. If American badger or burrows with American badger are found on-site during the preconstruction survey, consultation with CDFW shall occur prior to the initiation of any construction activities, to determine an appropriate burrow excavation and/or relocation method. If American badger is not found, further mitigation shall not be required.*

Finding: Implementation of Mitigation Measure 4.4-8 would reduce potential impacts to American badger to a less-than-significant level by requiring completion of a preconstruction survey within 48 hours prior to commencement of construction and implementation of appropriate excavation and/or relocation measures.

Impact 4.4-10 Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Mitigation Measure: The following mitigation measure has been adopted to address this impact:

4.4-10 Prior to the commencement of ground-disturbing activities, the project applicant shall apply to the Central Valley Regional Water Quality Control Board (RWQCB) for a Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements for Projects Involving Discharge of Dredged and/or Fill Material to Waters of the State. Written verification of the Section 401 permit shall be submitted to the City of Winters Community Development Department. The project applicant shall be responsible for conducting all project activities in accordance with the permit provisions outlined therein.

Findings: Implementation of Mitigation Measure 4.4-10 would reduce potential impacts to State or federally protected wetlands to a less-than-significant level by requiring the applicant to obtain a Clean Water Act Section 401 Water Quality Certification and conduct all project activities in accordance with the provisions outlined therein.

Impact 4.4-12 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Mitigation Measure: The following mitigation measure has been adopted to address this impact:

4.4-12 Pursuant to Winters Municipal Code Section 12.08.010, prior to the removal of any trees as part of the proposed project, the project applicant shall submit an application for review and approval to the City of Winters Tree Commission. Authority to remove trees shall be at the discretion of the City Manager, pursuant to the action taken by the Tree Commission. The application shall state the number and type of trees proposed to be removed or replaced, and other pertinent information as the City Manager finds reasonably necessary to make a fair determination of whether or not authority for tree removal shall be issued.

Findings: Implementation of Mitigation Measure 4.4-12 would reduce impacts related to conflicting with a tree preservation policy to a less-than-significant level by requiring the applicant to submit an application for authority for tree removal to the City of Winters Tree Commission and to provide replacement trees for those removed.

Impact 4.4-13 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

Mitigation Measure: The following mitigation measures have been adopted to address this impact:

4.4-13(a) *Yolo HCP/NCCP AMM3: Where natural communities and covered species habitat are present, workers will confine land clearing to the minimum area necessary to facilitate construction activities. Workers will restrict movement of heavy equipment to and from the project site to established roadways to minimize natural community and covered species habitat disturbance. The project proponent will clearly identify boundaries of work areas using temporary fencing or equivalent and will identify areas designated as environmentally sensitive. All construction vehicles, other equipment, and personnel will avoid these designated areas.*

4.4-13(b) *Yolo HCP/NCCP AMM4: To prevent injury and mortality of giant garter snake, western pond turtle, and California tiger salamander [It should be noted that California tiger salamander would not be potentially impacted by the proposed project], workers will cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during non-working hours. The construction contractor will inspect open trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.*

4.4-13(c) *Yolo HCP/NCCP AMM5: Workers will minimize the spread of dust from work sites to natural communities or covered species habitats on adjacent lands.*

4.4-13(d) *Yolo HCP/NCCP AMM6: All construction personnel will participate in a worker environmental training program approved/authorized by the Conservancy and administered by a qualified biologist. The training will provide education regarding sensitive natural communities and covered species and their habitats, the need to avoid adverse effects, state and federal protection, and the legal implications of violating the FESA and NCCPA Permits. A pre-recorded video presentation by a qualified biologist shown to construction personnel may fulfill the training requirement.*

4.4-13(e) *Yolo HCP/NCCP AMM7: Workers will direct all lights for nighttime lighting of project construction sites into the project construction area*

and minimize the lighting of natural habitat areas adjacent to the project construction area.

4.4-13(f) *<u>Yolo HCP/NCCP AMM8</u>: Project proponents should locate construction staging and other temporary work areas for covered activities in areas that will ultimately be a part of the permanent project development footprint. If construction staging and other temporary work areas must be located outside of permanent project footprints, they will be located either in areas that do not support habitat for covered species or are easily restored to prior or improved ecological functions (e.g., grassland and agricultural land). Construction staging and other temporary work areas located outside of project footprints will be sited in areas that avoid adverse effects on the following:*

- *Serpentine, valley oak woodland, alkali prairie, vernal pool complex, valley foothill riparian, and fresh emergent wetland land cover types.*
- *Occupied western burrowing owl burrows.*
- *Nest sites for covered bird species and all raptors, including noncovered raptors, during the breeding season.*

Project proponents will follow specific AMMs for sensitive natural communities (Section 4.3.3, Sensitive Natural Communities) and covered species (Section 4.3.4, Covered Species) in temporary staging and work areas. For establishment of temporary work areas outside of the project footprint, project proponents will conduct surveys to determine if any of the biological resources listed above are present.

Within one year following removal of land cover, project proponents will restore temporary work and staging areas to a condition equal to or greater than the covered species habitat function of the affected habitat. Restoration of vegetation in temporary work and staging areas will use clean, native seed mixes approved by the Conservancy that are free of noxious plant species seeds.

4.4-13(g) *To ensure avoidance and minimization of impacts to the species covered by the Yolo HCP/NCCP, which could be impacted by the project, the project applicant shall obtain coverage under the Yolo HCP/NCCP for on-site, and as may be determined necessary by Yolo Habitat Conservancy, for off-site infrastructure work, for each phase of development. In addition to payment of any applicable HCP/NCCP fees, the applicant shall implement Yolo HCP/NCCP AMMs identified in Mitigation Measures 4.4-2(a) and 4.4-2(b), 4.4-3, 4.4-4, and 4.4-5.*

Findings: Implementation of Mitigation Measures 4.4-13(a) though 4.4-13(g) would reduce impacts related to conflicting with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan to a less-than-significant level by requiring implementation of all applicable Avoidance Minimization Measures (AMMs) under the Yolo HCP/NCCP.

Cultural and Tribal Cultural Resources

Impact 4.5-2: Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries.

Mitigation Measures: The following mitigation measure has been adopted to address this impact:

4.5-2 *The following requirements shall be included via notation on all project grading plans prior to the issuance of grading permits, to the satisfaction of the City of Winters Community Development Department.*

In the event subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, shall be retained by the applicant to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- *If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and agency notifications are not required.*
- *If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City and applicable landowner. The project applicant shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Work shall not resume within the no-work radius until the applicant, through consultation as appropriate and concurrence with the City, determines that the site either: 1)*

is not a historical resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to the City's satisfaction.

- *If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Yolo County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 shall be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner shall notify the NAHC, which then shall designate a Native American Most Likely Descendant (MLD) for the proposed project (Section 5097.98 of the PRC). The designated MLD shall have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC shall mediate (Section 5097.94 of the PRC). If an agreement is not reached, the landowner shall rebury the remains where they shall not be further disturbed (Section 5097.98 of the PRC). The burial shall also include either recording the site with the NAHC or the appropriate information center, using an open space or conservation zoning designation or easement, or recording a reinternment document with Yolo County (AB 2641). Work shall not resume within the no-work radius until the City, through consultation as appropriate, determines that the treatment measures have been completed to their satisfaction.*

Finding: Implementation of Mitigation Measures 4.5-2 would reduce impacts related to unique archeological resources or human remains to a less-than-significant level by ensuring that any previously unknown cultural resources or human remains that are discovered during ground-disturbing activities are handled appropriately.

Impact 4.5-3 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or a resource determined

by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.

Mitigation Measures: The following mitigation measure has been adopted to address this impact:

4.5-3 *Prior to ground disturbance activities, the project proponent shall prepare a Tribal Cultural Resources Monitoring Plan for City approval that includes the following components:*

- *Awareness Training -- The scope, format, and timing of delivery of a contractor awareness training program to inform equipment operators and their supervisors of the procedures required by the Monitoring Plan, which includes, at a minimum, annual training for all personnel involved in project implementation. The program shall include relevant information regarding sensitive tribal cultural laws and regulations. The program shall describe appropriate avoidance and minimization measure (as described in the executed Monitoring Plan) for resources that have the potential to be located on the project site and shall outline specific actions and contacts should any potential archeological resources or artifacts be encountered. The program shall also underscore the requirement for confidentiality and culturally-appropriate treatment of any finds of significance to Native American peoples and for behavior consistent with Native American Tribal values. A copy of the contractor awareness training program materials and written verification of completion of the training program shall be submitted to the City of Winters Community Development Department.*
- *Compliance with Applicable Laws – The Monitoring Plan shall describe applicable laws and regulations relevant to potential cultural resource finds, including specific procedures to ensure compliance during implementation.*
- *Reporting By Phase –The applicant shall file a written report to the City within 30 days of completion of monitoring for each monitoring phase. The report shall document compliance with the terms of the Monitoring Agreement and shall report on the nature and disposition of any cultural resource discoveries. Applicable requirements for confidentiality shall be observed in these reports.*
- *Treatment and Disposition of Cultural Items and Remains – Detailed unanticipated discovery procedures for cultural resources, unique archaeological resources, tribal cultural*

resources, or human remains that includes consultation with the City to ensure that any discoveries are treated in accordance with applicable state law before work can resume at the discovery location.

- *Other Procedures and Requirements – Timing and procedures for other relevant actions necessary to implement the Monitoring Plan.*

Finding: Implementation of Mitigation Measure 4.5-3 would reduce impacts related to adverse changes in the significance of tribal cultural resources to a less-than-significant level by requiring the project proponent to prepare and comply with a Tribal Cultural Resources Monitoring Plan.

Impact 4.5-4 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Mitigation Measures: The following mitigation measure has been adopted to address this impact:

4.5-4 *Prior to the issuance of grading permits, the following language shall be included via notation on the grading plans, subject to review and approval by the City of Winters Community Development Department:*

"Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The City of Winters Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred."

Finding: Implementation of Mitigation Measure 4.5-4 would reduce impacts related to the destruction of unique paleontological resources or geological features to a less-than-significant level by requiring any previously unknown unique paleontological resources or geological features that are discovered during ground-disturbing activities to be handled appropriately.

Transportation

Impact 4.9-1: Conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian, bicycle, and transit facilities.

Mitigation Measures: The following mitigation measure has been adopted to address this impact:

4.9-1(a) Prior to issuance of grading permits, the project applicant shall obtain an encroachment permit from the California Department of Transportation (Caltrans) for all proposed improvements within the State Route (SR) 128 right-of-way (ROW). As part of obtaining an encroachment permit, the project applicant shall apply through the Caltrans Encroachment Permit System and submit a copy of the final improvement plans as part of the application package, showing the location and specifications of the proposed improvements to SR 128. The proposed improvements shown on the improvement plans, which shall also be subject to review and approval by the City Engineer as meeting the applicable standards of the City of Winters Design Guidelines, shall include, but not be limited to, the following:

1) *At the SR 128 (East Grant Avenue)/East Main Street intersection, installation of a traffic signal, marked crosswalks, bike lane conflict markings, and bicycle intersection crossing markings. The traffic signal shall provide temporal separation between bicyclists, pedestrians, and conflicting vehicular movements (e.g., through the provision of pedestrian crossing phases). This improvement shall be completed during Phase 1 of the proposed project, prior to construction of the 160th dwelling unit. This improvement is included as a citywide improvement project in the City's Traffic Impact Fee program and shall be reimbursed through the requisite impact fee to the City's fee program. Additionally, should either of the two properties bordering the future traffic signal develop in advance of the proposed project, the properties shall reimburse the proposed project for their fair share of the signal.*
2) *At the western project site boundary, contribution of a fair share towards the construction of a roundabout with marked crosswalks and physical separation between bicyclists and vehicles. The roundabout shall reduce approach speeds for vehicular traffic and enable crossing pedestrians to negotiate conflicting vehicular traffic, one direction at a time (i.e., through the provision of pedestrian refuge areas/splitter islands). This improvement is included as a citywide improvement project in the City's Traffic Impact Fee program.*

Accordingly, payment of the requisite impact fee to the City's fee program shall fulfill the project's mitigation obligation for this improvement.

3) *Construction of new bicycle facilities on SR 128 according to standards set forth in the Caltrans Highway Design Manual. The required Class I shared-use path on the northern edge of SR 128, along the project site's southern boundary, shall include a minimum paved width of eight feet, plus two-foot shoulders of unobstructed all-weather surface on each side of the path. The provision of the proposed 12-foot paved path shall also satisfy the applicable Caltrans design requirements. The design of the bicycle facilities shall be submitted to Caltrans and the City of Winters for review and approval.*
4) *Improvements of equal effectiveness as determined by the City Engineer.*

Written verification of the encroachment permit shall be submitted to the City of Winters Community Development Department. The project applicant shall conduct all project activities in accordance with the permit provisions outlined therein.

Finding: Implementation of Mitigation Measure 4.9-1 would reduce impacts related to conflicts with a program, plan, ordinance, or policy addressing the circulation system to a less-than-significant level by requiring the applicant to obtain an encroachment permit from, and submit the final improvement plans to, the California Department of Transportation, as well as to implement improvements to SR 128.

Initial Study

Impact VII-a: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

iii. Seismic-related ground failure, including liquefaction?
iv. Landslides?

Impact VII-c: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Impact VII-d: Would the project be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Mitigation Measures: The following mitigation measure has been adopted to address these impacts:

VII-1. *Prior to issuance of grading permits, a design-level Geotechnical Engineering Investigation shall be prepared in order to evaluate the proposed project's potential effects related to geologic hazards, including, but not limited to, expansive soils, liquefaction, and subsidence/settlement. The City Engineer shall verify that all geotechnical recommendations specified in the design-level Geotechnical Engineering Investigation prepared for the project are properly incorporated in the project design.*

Finding: Implementation of Mitigation Measure VII-1 would reduce impacts related to seismic-related ground failure, liquefaction, landslides, lateral spreading, subsidence, and expansive, or otherwise unstable soil to a less-than-significant level by requiring a design-level Geotechnical Engineering Investigation be prepared and properly integrated in the project design.

Impact IX-b: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?

Mitigation Measures: The following mitigation measures have been adopted to address this impact:

IX-1. *Prior to initiation of ground-disturbing activities associated, the project applicant shall complete testing of on-site soils and groundwater. The testing shall be tested for organochlorine pesticides (OCPs) in accordance with U.S. Environmental Protection Agency (USEPA) Method 8081A. Soil determined to be non-hazardous through analytical testing shall be transported and disposed of at a permitted Class II non-hazardous facility with established Waste Discharge Requirements (WDRs) with the Central Valley Regional Water Quality Control Board (RWQCB). Groundwater determined to be non-hazardous through analytical testing shall be transported and disposed of at a permitted non-hazardous treatment facility. Non-hazardous waste shall be transported to disposal under a non-hazardous waste manifest.*

In the event that soil and groundwater are determined to be hazardous by exceeding the USEPA Regional Screening Level for residential exposure scenarios, the soil and/or groundwater shall be transported and disposed of at a Class I facility permitted by the California Department of Toxic Substances Control. Hazardous waste shall be transported to disposal by a licensed hazardous waste hauler under a uniform hazardous waste manifest.

The results of soil and/or groundwater sampling and analysis, as well as verification of proper remediation and disposal, shall be submitted to the City's Community Development Department for review and approval.

IX-2. *Prior to Improvement Plan approval, the project applicant shall contract a licensed geologist with the State of California to complete a site reconnaissance for any on-site wells. In the event on-site wells are not identified, no further mitigation shall be required. If an on-site well is identified, the project applicant shall hire a licensed well contractor to obtain a well abandonment permit from the Yolo County Environmental Health Division (YCEHD) for all on-site wells and properly abandon the on-site wells, pursuant to Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III). Verification of abandonment shall be submitted for review and approval to the City's Community Development Department.*

Finding: Implementation of Mitigation Measures IX-1 and IX-2 would reduce impacts related to the accidental release of hazardous materials to a less-than-significant level by requiring the applicant to complete testing of on-site soils and ground water for organochlorine pesticides (OCPs), as well as to contract a licensed geologist to complete a site reconnaissance for any on-site wells. Implementation of the Mitigation Measures would ensure that any on-site hazardous materials and wells are handled appropriately.

Impact X-c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

iv. Impede or redirect flood flows?

Impact X-d. Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Mitigation Measures: The following mitigation measure has been adopted to address these impacts:

X-1. *Prior to occupancy, the project applicant shall ensure that the conditions specified in the Federal Emergency Management Agency (FEMA) Conditional Letter of Map Revision have been met and a Final Letter of Map Revision issued by FEMA. Evidence thereof shall be submitted to the City's Community Development Department for review and approval.*

Finding: Implementation of Mitigation Measure X-1 would reduce impacts related to flood flows and the release of contaminants due to inundation by requiring the applicant to

ensure that the conditions specified in the FEMA Conditional Letter Map Revision have been met.

3. Significant and Unavoidable Impacts.

The following significant environmental impacts of the Project, including cumulative impacts, are unavoidable and cannot be mitigated in a manner that would reduce the significant impact to a less-than-significant level. Notwithstanding disclosure of these impacts, the City Council elects to approve the Project due to overriding considerations as set forth below in Part D, Statement of Overriding Considerations.

Agricultural Resources

Impact 4.2-1 Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Mitigation Measures: The following mitigation measure has been adopted to address this impact to the extent feasible:

4.2-1 Prior to initiation of grading activities, the project applicant shall complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an Avoidance/Minimization/Mitigation (AMM) plan, and fees or equivalent mitigation. Land cover conversion fees shall be applied for the proposed project's land cover impacts, in accordance with Yolo HCP/NCCP guidelines. Proof of compliance with the aforementioned requirements shall be submitted to the City of Winters Community Development Department for review and approval.

Finding: Implementation of Mitigation Measure 4.2-1 would require the applicant to complete a Yolo HCP/NCCP application package. The application package includes payment of land cover fees, which would allow the Yolo HCP/NCCP to purchase and preserve an equivalent amount of off-site habitat of equal or greater value as the on-site habitat that would be developed as part of the Project. Such mitigation would help reduce the project's incremental contribution towards the cumulative impact related to conversion of important farmland. However, the impact would remain significant and unavoidable due to the permanent loss of agricultural land attributable to the Project. Additional mitigation measures to further reduce the impact to agricultural land were determined to be infeasible.

Impact 4.2-3 Involve changes in the existing environment which, due to their location or nature, could cumulatively result in loss of Farmland to non-agricultural use.

Mitigation Measures: The following mitigation measure has been adopted to address this impact to the extent feasible:

4.2-3 Implement Mitigation Measure 4.2-1.

Finding: Implementation of Mitigation Measure 4.2-3 (Mitigation Measure 4.2-1) would require the applicant to complete a Yolo HCP/NCCP application package. The application package includes payment of land cover fees, which would allow the Yolo HCP/NCCP to purchase and preserve an equivalent amount of off-site habitat of equal or greater value as the on-site habitat that would be developed as part of the Project. However, the impact would remain cumulatively considerable and significant and unavoidable due to the permanent loss of agricultural land attributable to the project in combination with other development in the City. Additional mitigation measures to further reduce the impact to agricultural land were determined to be infeasible.

Air Quality and GHG Emissions

Impact 4.3-7 Generation of greenhouse gas (GHG) emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Mitigation Measures: The following mitigation measures have been adopted to address this impact to the extent feasible:

4.3-7(a) The following requirements shall be noted on project improvement plans, subject to review and approval by the City of Winters Community Development Department:

- *The proposed project shall be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; and*
- *The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces.*

If the use of all-electric for any project component(s) (e.g., an appliance) is not enforceable or commercially feasible at the time of issuance of building permit, the applicant shall be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric. The emissions from the use of natural gas shall be calculated by a qualified professional utilizing YSAQMD-,

CARB-, or the USEPA-approved emissions models and quantification methods available and submitted to the City for review and approval, which shall include third-party review by a qualified consultant of the City's selection and be subject to applicant reimbursement of consultant costs.

Any and all GHG credits to off-set for the use of natural gas must be created through a CARB-approved registry. These registries are currently the ACR, CAR, and Verra, although CARB may accredit additional registries in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. The selected protocol must demonstrate that the GHG-emissions reductions are real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR 95802(a) are provided below.

(1) Real: GHG reductions or enhancements result from a demonstrable action or set of actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the [GHG credit] project boundary and account for uncertainty and the potential for activity-shifting and market-shifting leakage.

(2) Additional: GHG reductions or removals that exceed any GHG reduction, or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario.

(3) Permanent: GHG reductions and removal enhancements are not reversible or, when GHG reductions and GHG-removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG-emission reductions and GHG-removal enhancements to ensure that all credited reductions endure for at least 100 years.

(4) Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG-removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the [GHG credit] project boundary, while accounting for uncertainty. activity-shifting, and market-shifting leakage.

(5) Verifiable: A [GHG credit] project report assertion is well-documented and transparent such that it lends itself to an objective review by an accredited verification body.

(6) Enforceable: The authority for CARB to hold a particular party liable and take appropriate action if any of the provisions of this article are violated. Note that this definition of enforceability is specific to the Cap-and-Trade regulation, where CARB holds enforcement authority, but this measure will employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and backed by a legal instrument or contract that defines exclusive ownership.

Geographic Prioritization of GHG Credits

GHG credits from reduction projects in the City will be prioritized before projects in larger geographies (i.e., northern California, California, United States, and international). The applicant will inform brokers of the required geographic prioritization for the procurement of GHG credits. GHG credits from reduction projects identified in the City that are of equal or lesser cost compared to the settlement price of the latest Cap-and-Trade auction must be included in the transaction. GHG credits from reduction projects outside of the City may be purchased if adequate credits cannot be found in the City or if they exceed the maximum price identified above. The economic and geographic analysis undertaken to inform the selection of GHG credits must be provided by the applicant to the City as part of the required documentation discussed below under Plan Implementation and Reporting.

Types of GHG Credits

GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project-generated emissions at any time. GHG credits from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated through a prorated surcharge of additional FMUs proportional to the effect of the delay. Because emissions of CO2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10 percent for every year of lag between project emissions and their reduction through a FMU will be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 metric ton of project GHG

emissions generated in the year prior to funding and implementation of the FMU).

Verification and Independent Review of GHG Credits
All GHG credits will be verified by an independent verifier accredited by the ANSI National Accreditation Board (ANAB) or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the accreditation board (i.e., ANAB or CARB), the verifier will certify the following.

- *GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. Verification of the latter requires certification that the credits meet or exceed the standards in 17 CCR 95972.*
- *GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.*
- *GHG credits are purchased according to the geographic prioritization standard defined in this measure under Geographic Prioritization of GHG Credits.*

Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that will result from future projects, additional verification must occur beyond initial certification is required. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification will examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. The applicant will retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project.

4.3-7(b) Implement Mitigation Measure 4.9-2.

Finding: Implementation of Mitigation Measure 4.3-7(a) would ensure the project complies with Yolo-Solano Air Quality Management District (YSAQMD) Best Management Practices (BMPs) one and two. Implementation of Mitigation Measure 4.3-7(b) (Mitigation Measure 4.9-2) would reduce project vehicle miles traveled (VMT), but not to a level that would achieve 15 percent less than the regional average VMT. Consequently, with implementation of the mitigation measures, the project's incremental contribution to the cumulatively significant effects of GHG emissions and global climate change would not be reduced. Additional mitigation measures to further reduce the impacts were determined to be infeasible. Thus, the impact remains cumulatively considerable and significant and unavoidable.

Transportation

Impact 4.9-2 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Mitigation Measures: The following mitigation measure has been adopted to address this impact to the extent feasible:

4.9-2 *Prior to issuance of the first building permit in the first phase of development, the applicant shall, to the extent feasible, implement transportation demand management (TDM) strategies to reduce the number of vehicle trips that would be generated by both the residential and commercial components of the project. The TDM program shall be submitted to the City Public Works Department for review and approval. Potential TDM strategies range from site design characteristics to on-going parking management and commute travel programs. The California Air Pollution Control Officers Association (CAPCOA) Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity identifies numerous TDM strategies and quantifies their potential vehicle trip reduction effects. Potential strategies that could be applicable to the project include:*

1. *Increase residential density;*
2. *Increase job density;*
3. *Provide transit-oriented development;*
4. *Implement commute trip reduction program;*
5. *Implement commute trip reduction marketing;*
6. *Provide ridesharing program;*
7. *Provide end-of-trip bicycle facilities;*
8. *Limit residential parking supply;*
9. *Unbundle residential parking costs from property costs;*
10. *Improve street connectivity;*
11. *Construct or improve bike boulevard;*
12. *Implement carshare program; and/or*
13. *Implement community-based travel planning.*

Finding: Implementation of Mitigation Measure 4.9-2 would reduce residential VMT per capita associated with the project residential component by implementing transportation demand management (TDM) strategies to reduce external vehicle trips generated by the project. However, the effectiveness of the TDM strategies cannot be quantified at this time, and subsequent vehicle trip reduction effects cannot be guaranteed. Furthermore, even if implemented, TDM strategies are not guaranteed to sufficiently reduce project-generated VMT to levels below the thresholds of significance. As such, implementation of the mitigation measure would reduce the above impact, but not to a less-than-

significant level. Additional mitigation measures to further reduce the impacts were determined to be infeasible; therefore, the impact would remain significant and unavoidable.

The City Council acknowledges that in making these findings, the City Council has considered the opinions of other agencies and members of the public, including opinions that disagree with some of the analysis and significance thresholds used in the EIR. The City Council finds that the determination of significance thresholds is a judgment within the discretion of the City Council; the significance thresholds used in the EIR are supported by substantial evidence in the record, including the expert opinion of the EIR preparers and City staff; and the significance thresholds used in the EIR provide reasonable and appropriate means of assessing the significance of the adverse environmental effects of the Project.

In particular, the EIR relied on significance criteria for evaluating impacts that are tailored to this type of project. The criteria used in this EIR to determine whether an impact is or is not "significant" are based on (a) CEQA-stipulated "mandatory findings of significance" listed in CEQA Guidelines Section 15065; (b) the relationship of the Project effect to the adopted policies, ordinances and standards of the City and of responsible agencies; and (c) commonly accepted practice and the professional judgment of the EIR authors and City staff.

A full explanation of the environmental findings and conclusions can be found in the Final EIR and these findings hereby incorporate by reference the discussion and analysis in the Final EIR supporting the Final EIR's determinations regarding the Project's impacts and mitigation measures designed to address those impacts. In making these findings, the City Council ratifies, adopts, and incorporates the analysis and explanation in the Final EIR, and ratifies, adopts, and incorporates in these findings the determinations and conclusions of the Final EIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

The City Council adopts, and incorporates as conditions of approval of the Project, the mitigation measures set forth in the Mitigation Monitoring and Reporting Program attached to these findings as Exhibit A to reduce or avoid the potentially significant and significant impacts of the Project. The City Council acknowledges that in adopting these mitigation measures, the City Council intends to adopt each of the mitigation measures recommended for approval by the Final EIR. Accordingly, in the event a mitigation measure recommended in the Final EIR has inadvertently been omitted from Exhibit A, such mitigation measure is hereby adopted and incorporated in the findings below by reference. In addition, in the event the language describing a mitigation measure set forth in Exhibit A fails to accurately reflect the mitigation measures in the Final EIR due to a clerical error, the language of the mitigation measure as set forth in the Final EIR shall control, unless the language of the mitigation measure has been specifically and expressly modified by these findings.

The City Council hereby finds that the adopted mitigation measures are changes or alterations that have been required in, or incorporated into, the Project which reduce or avoid significant effects on the environment to the maximum extent feasible.

Changes to a mitigation measure (Mitigation Measure 4.2-1) were made in response to a comment on the Draft EIR. The changes represent minor clarifications/amplifications of the analysis contained in the Draft EIR and do not constitute significant new information that, in accordance with CEQA Guidelines Section 15088.5, would trigger the need to recirculate portions or all of the Draft EIR.

Part C. Alternatives

Summary of Discussion of Alternatives in the Final EIR

The Draft EIR evaluates three potential alternatives to the Project. The Draft EIR examines the environmental impacts of each alternative in comparison with the Project and the relative ability of each alternative to satisfy Project objectives.

Findings Relating to Alternatives

In making these findings, the City Council certifies that it has independently reviewed and considered the information on alternatives provided in the Final EIR, including the information provided in comments on the Draft EIR and the responses to those comments in the Final EIR. The Draft EIR's discussion and analysis of these alternatives is not repeated in these findings, but the discussion and analysis of the alternatives in the Draft EIR is incorporated in these findings by reference.

The Draft EIR describes and evaluates in detail three alternatives to the Project. The City Council acknowledges that the reasons for the City Council's decision to approve the Project instead of the remaining alternatives are presented below. The City Council finds that the Project would satisfy the Project Objectives, and the remaining alternatives are unable to satisfy the Project objectives to the same degree as the Project. The City Council further finds that, on balance, none of the remaining alternatives has environmental advantages over the Project that are sufficiently great to justify approval of such an alternative instead of the Project, in light of each such alternative's inability to satisfy the Project objectives to the same degree as the Project. Accordingly, the City Council determines to approve the Project instead of approving one of the remaining alternatives.

Description of Project Objectives

The Project objectives are the following:

1. Create a land use plan that contains a mix of land uses and residential product types that satisfy City policies, regulations and expectations as discussed in the Winters General Plan;
2. Provide for a sufficient number of residential units to attract merchant builders and allow a mix of housing choices at varying densities to respond

to a range of market segments, including opportunities for rental units and affordable housing consistent with the General Plan and Housing Element;
3. Add new affordable housing units which will assist the City of Winters in achieving the City's Regional Housing Needs Allocation (RHNA) requirements;
4. Include commercially designated land that utilizes the project's frontage and adjacency to Grant Avenue to support the needs of local residents and capture the benefits of drive-by traffic;
5. Designate park and open space areas to provide opportunities for outdoor recreation and exercise to encourage healthy lifestyles for future residents and adjacent neighborhoods;
6. Provide a comprehensively planned neighborhood in an infill location that is effectively served by existing and proposed infrastructure in a manner that allows for efficient, orderly, and logical development and discourages leapfrog or piecemeal development and sprawl;
7. Incorporate drainage detention and water quality features that mitigate for the impacts of the project and also contribute toward the more comprehensive solution identified in the City of Winters Storm Drainage Master Plan Northeast Area;
8. Create a neighborhood that can be logically and efficiently phased to allow for the orderly buildout of the project and installation of improvements to the infrastructure systems;
9. Provide a roadway system that allows connectivity between existing and proposed neighborhoods and parks and for two points of access to allow safe ingress and egress, and service by infrastructure systems and emergency services;
10. Provide a circulation system that interconnects land uses and promotes pedestrian, bicycle, and transit options that will encourage non-vehicular trips, thereby reducing VMT and GHG emissions;
11. Create a development that has an overall positive economic impact on the City of Winters and has a neutral or positive fiscal impact on City finances and existing rate payers; and
12. Provide a quality development on East Grant Road that contributes to the beautification of this gateway entry into the City of Winters from the Interstate 505 (I-505) interchange.

Discussion and Findings Relating to the Alternatives Evaluated in the Draft EIR

Chapter 6, Alternatives Analysis, of the Draft EIR evaluates the following three alternatives, which are summarized below:

- No Project (No Build) Alternative;
- Buildout Pursuant to Existing General Plan Alternative; and
- Agricultural Preservation Alternative.

No Project (No Build) Alternative.

Under CEQA, a "no-project alternative" compares the impacts of proceeding with a proposed project with the impacts of not proceeding with the project. A no-project alternative describes the environmental conditions in existence at the time the Notice of Preparation was published, along with a discussion of what would be reasonably expected to occur at the site in the foreseeable future, based on current plans and consistent with available infrastructure and community services.

The No Project (No Build) Alternative is defined in the Draft EIR as the continuation of the existing conditions of the project site, which currently consists of agricultural land primarily used for annual row crops. Because implementation of the No Project (No Build) Alternative would result in the site remaining under current conditions, physical environmental impacts associated with the Project would not occur. Therefore, implementation of the No Project (No Build) Alternative would generally result in fewer overall impacts compared to that of the Project. However, under the No Project (No Build) Alternative, the Yolo HCP/NCCP would not receive funds from development impact fees, which would hinder the HCP's ability to operate as compared to operations with the funds generated by the Project. Therefore, the potential impact to the Yolo HCP/NCCP would be slightly greater under the No Project (No Build) Alternative. In addition, the City's General Plan identifies the site as an area suitable for development; as such, the No Project (No Build) Alternative would not fulfill the stated aims of the City's General Plan. Finally, the alternative would not fulfill any of the Project's objectives.

On balance, the environmental benefits that might be achieved with the No Project (No Build) Alternative are outweighed by the failure to achieve any of the Project objectives, and the City Council rejects this alternative.

Buildout Pursuant to Existing General Plan Alternative.

The Buildout Pursuant to Existing General Plan Alternative, which is considered another type of "no-project alternative," would consist of buildout of the project site per the current City of Winters General Plan land use designations. Pursuant to the City's General Plan, the majority of the site is designated Low-Density Residential, while the eastern portion of the site is designated Open Space, and the southern portion of the site is designated Neighborhood Commercial. Under the Buildout Pursuant to Existing General Plan Alternative, a total of 33.7 acres of the project site would be developed with 246 residential units. In addition, a maximum of 256,133 square feet (sf) of commercial uses would be developed on 14.7 acres. The remaining 13.5 acres of the site would be retained as open space.

The Draft EIR determined that the Buildout Pursuant to Existing General Plan Alternative would not be capable of meeting Project Objective #1 because the Alternative would not include a mix of residential types. However, because the Alternative would generally resemble the Project, including the development of open space, new roadways, and commercially designated land along SR 128, the remaining Project objectives would be fully or partially met. The Alternative would result in similar impacts related to

agricultural resources, air quality, GHG, and energy, biological resources, cultural and tribal cultural resources, and transportation. In addition, the Alternative would result in fewer impacts related to land use and planning/population and housing, as well as to public services and utilities, and greater impacts related to aesthetics and noise, as compared to the Project. The significant and unavoidable impacts related to agricultural resources, air quality, GHG emissions, and energy, and transportation determined for the Project would not be avoided. Although the Alternative would achieve most Project Objectives, the significant unavoidable impacts would not be avoided. As such, the City Council rejects this alternative.

Agricultural Preservation Alternative.

The Agricultural Preservation Alternative would consist of buildout of the project site with the same number of residential units on the 34 acres currently designated as residential. As such, the residential portion of the Alternative would need an increased density and require a High Density Residential designation. The amount of on-site commercial development along the SR 128 frontage would be the same as the existing land use designation (14.7 acres), which would represent an increase of 219,133 sf as compared to the Project, for a total of 256,133 sf. The remaining 2.8 acres would be retained as open space. The Alternative would include development of 34 total acres, which represents a 27.9-acre reduction in total development area as compared to the proposed project. The 27.9 acres of undeveloped land would be preserved as agricultural land.

The Draft EIR determined that Agricultural Preservation Alternative would be capable of fully or partially achieving some Project objectives. However, because the Alternative would not include a mix of housing choices at varying densities, Objectives #2 and #3 would not be met. In addition, because the Alternative would exclude a portion of the project site, development could arguably achieve the opposite of Objective #6, which aims to develop an "…efficient, orderly, and logical development and discourage[s]… piecemeal development and sprawl." In addition, the Draft ER determined that the Alternative would result in reduced impacts to agricultural resources, air quality, GHG emissions, and energy, as well as biological resources, cultural and tribal cultural resources, and transportation; impacts related to land use and planning/population and housing, and public services and utilities would be similar to the Project.

The Agricultural Preservation Alternative would consist of the development of an approximately 34-acre portion of the same project site as the Project with largely residential and commercial uses. As such, the Alternative would be anticipated to convert approximately 18.3 fewer acres of Prime Farmland to non-agricultural uses as compared to the Project. Overall, the significant and unavoidable impact related to agricultural resources would be reduced as compared to the Project, but would still remain significant and unavoidable.

The Alternative would incorporate residential units at an increased density, which would result in a reduction in VMT as compared to the Project. Because the VMT would be reduced, GHG emissions would also be reduced. As discussed further in regard to

transportation below, VMT would not likely be reduced to a less-than-significant level. As a result, the Alternative would still conflict with YSAQMD BMP-3, and Mitigation Measures 4.3-7(a) and 4.3-7(b) would still be required. It should be noted that although the Alternative would result in lesser impacts related to GHG emissions compared to the Project, the impact would remain significant and unavoidable.

Total Project-generated VMT would be reduced by increasing the density of proposed residential units, which is a California Air Pollution Control Officers Association (CAPCOA) VMT-reduction strategy. Because the City's VMT threshold is a per capita rate, the Alternative's increased density of units would not avoid the Project's potential to exceed the City's VMT threshold. The Alternative would still require Mitigation Measure 4.9-2. However, total Project-generated VMT would be reduced and, consequently, the Alternative's impacts related to transportation would be fewer as compared to the Project. Because feasible mitigation to reduce the per capita VMT to less than 15 percent below regional averages does not exist, even with implementation of Mitigation Measures 4.9-2, the Agricultural Preservation Alternative would not eliminate the significant and unavoidable impact related to the City's VMT threshold. Therefore, the significant and unavoidable impacts determined for the Project would still be expected to occur under the Alternative.

Although the Alternative would generally achieve most of the project objectives, the significant and unavoidable impacts determined for the Project would not be avoided. As such, the City Council rejects this alternative.

Findings Regarding Reasonable Range of Alternatives

The City Council finds that the range of alternatives evaluated in the EIR reflects a reasonable attempt to identify and evaluate various types of alternatives that would potentially be capable of reducing the Project's environmental effects, while accomplishing most but not all of the Project objectives. The City Council finds that the alternatives analysis is sufficient to inform the City Council and the public regarding the tradeoffs between the degree to which alternatives to the Project could reduce environmental impacts and the corresponding degree to which the alternatives would hinder the City's ability to achieve the Project objectives.

Part D. Statement of Overriding Considerations

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological or other benefits of the proposed project against its unavoidable environmental risks when determining whether to approve the proposed project. If the specific economic, legal, social, technological or other benefits of the proposed project outweigh the unavoidable adverse environmental effects, those effects may be considered "acceptable" (CEQA Guidelines 15093[a]). CEQA requires the agency to state, in writing, the specific reasons for considering a project acceptable when significant impacts are not avoided or substantially lessened. Those reasons must be based on substantial evidence in the Final SEIR or elsewhere in the administrative record (CEQA Guidelines 15093(b)).

In accordance with the requirements of CEQA and the CEQA Guidelines, the City Council finds that the mitigation measures identified in the Final EIR and the Mitigation Monitoring Reporting Program, when implemented, will avoid or substantially lessen many of the significant effects identified in the Final EIR for the Farmstead Subdivision Project. However, significant impacts to agricultural resources, air quality and greenhouse gas emissions, and transportation are unavoidable even after incorporation of all feasible mitigation measures. The Final EIR provides detailed information regarding these impacts.

The City Council finds that all feasible mitigation measures identified in the Final EIR within the purview of the City will be implemented with the proposed Project, and that the remaining significant unavoidable effects are outweighed and found to be acceptable due to the following specific overriding economic, legal, social, technological, or other benefits based upon the facts set forth above, the Draft EIR, and the record, because:

1. The Project would provide citywide and regional economic benefits through tax revenues and project fees. The Project would be required to pay Development Impact Fees for Winters Fire Department (WFD) and Winters Police Department (WPD). In addition, the project would be required to pay a drainage impact fee per Chapter 15.90 of the City's Municipal Code. Furthermore, the Project would be required to pay development fees towards the Winters Joint Unified School District (WJUSD).

2. The Project would create jobs for local residents through construction. Construction of the Project would create jobs by increasing the number of construction workers in the project area. Considering the nature and size of the Project, a substantial amount of construction workers would likely be needed in construction of the proposed residential uses and other proposed improvements. Additionally, building materials would most likely be purchased in the area, stimulating the local economy and businesses. In addition, the proposed project would include 3.3 acres of land dedicated for commercial use. Commercial use would include approximately 37,00 sf of commercial buildings which would create job opportunities for local residents.

3. The Project would provide additional housing opportunities in the City of Winters. Based on the City's 2021-2029 Housing Element, the Regional Housing Needs Allocation (RHNA) for the years 2021-2029 would require 552 new residential units in the City of Winters. The Project would contribute an additional 329 residential units to increase the City's housing supply, as well as provide a variety of housing types, including single-family, townhome, and multi-family residences, which would help the City satisfy its RHNA goals.

4. The Project would preserve potential habitat for special-status species by preserving 13.5 acres of open space areas.

The City Council has considered these benefits and considerations and has considered the significant unavoidable environmental effects of the Project. The City Council has determined that the economic, legal, social, technological, and other benefits of the Project outweigh the identified significant and unavoidable impacts of the Project.

The City Council adopts the mitigation measures in the final Mitigation Monitoring and Reporting Program, incorporated by reference into these findings, and finds that any residual or remaining effects on the environment resulting from the Project, identified as significant and unavoidable in the Findings of Fact, are acceptable due to the benefits set forth in this Statement of Overriding Considerations. The City Council makes this Statement of Overriding Considerations in accordance with Section 15093 of the CEQA Guidelines in support of approval of the Project.

Part E. Record of Proceedings

Various documents and other materials constitute the record upon which the City Council bases these findings and the approvals contained herein. For all purposes of CEQA compliance, including these Findings of Fact, the administrative record of all City proceedings and decisions regarding the environmental analysis of the Project include but are not limited to:

- The Draft and Final EIR for the Project, together with all appendices and technical reports referred to therein, whether separately bound or not, or on a CD/portable drive;
- All reports, letters, applications, memoranda, maps, or other planning and engineering documents prepared by the City, its planning consultant and environmental consultant, the Applicant or others and presented to or before the decision-makers or staff;
- All minutes of any public workshops, meetings or hearings, and any recorded or verbatim transcripts or videotapes thereof;
- Any letters, reports, or other documents or evidence submitted into the record at any public workshops, meetings or hearings; and
- Matters of common general knowledge to the City, which it may consider, including applicable state or local laws, ordinances and policies, the General Plan and all applicable planning programs and policies of the City.

The location and custodian of these documents and materials is: David Dowswell, Contract Planner, City of Winters, 318 First Street, Winters, CA 95694.

Part F. Mitigation Monitoring and Reporting Program

Based on the entire record before the City and having considered the unavoidable significant impacts of the proposed Project, the City Council hereby determines that all feasible mitigation within the responsibility and jurisdiction of the City and the project

Applicant have been adopted to reduce or avoid the potentially significant impacts identified in the Final EIR, and that no additional feasible mitigation is available to further reduce significant impacts. The feasible mitigation measures are discussed in Part B and are set forth in the MMRP.

In accordance with Public Resources Code Section 21081.6, the City Council must adopt a mitigation monitoring and reporting program to ensure that the mitigation measures adopted herein are implemented. The City Council hereby adopts the Mitigation Monitoring and Reporting Program for the Project attached to these findings as Exhibit A, which fulfills the CEQA mitigation monitoring requirements:

- The Mitigation Monitoring and Reporting Program is designed to ensure compliance with the changes in the Project and mitigation measures imposed on the project during project implementation; and
- Measures to mitigate or avoid significant effects on the environment are fully enforceable through conditions of approval, permit conditions, agreements, or other measures.

NOW THEREFORE BE IT FURTHER RESOLVED that the Environmental Impact Report for the Farmstead Subdivision Project is HEREBY CERTIFIED pursuant to the California Environmental Quality Act. All feasible mitigation measures for the Project identified in the Environmental Impact Report and accompanying studies are hereby incorporated into this approval.

PASSED AND ADOPTED by the City Council of the City of Winters at its meeting held on _____, 2025, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

CITY OF WINTERS:

_____
Albert Vallecillo, Mayor

ATTEST:

_____
Jeremy Craig, City Clerk

* * * * * * * *

I HEREBY CERTIFY that the foregoing resolution was adopted by the City Council of the City of Winters at a regular meeting thereof held on the __th day of _____, 2025, by the following vote:

AYES:

NOES:

ABSENT:

_____
ZORINA TREAT
DEPUTY CITY CLERK OF THE CITY OF WINTERS

EXHIBIT A
MITIGATION MONITORING AND REPORTING PROGRAM

Farmstead Subdivision Project

SCH# 2021110261

Draft Environmental Impact Report

Prepared for
City of Winters

September 2024

Prepared by

RANEY PLANNING & MANAGEMENT, INC.
1501 Sports Drive, Suite A, Sacramento, CA 95834

Farmstead Subdivision Project
Draft Environmental Impact Report

SCH# 2021110261

Lead Agency

City of Winters Community Development Department
Planning Division
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Winters, CA 95694

David Dowswell
Contract Planner
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Rod Stinson
Vice President

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1. Introduction

1. INTRODUCTION

1.1 TYPE AND PURPOSE OF THE EIR

The Farmstead Subdivision Project (proposed project) Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, Public Resources Code (PRC) Sections 21000-21189, as amended, and the Guidelines for Implementation of the California Environmental Quality Act, California Code of Regulations, Title 14, Sections 15000-15387 (CEQA Guidelines). The City of Winters is the lead agency for the environmental review of the proposed project evaluated herein and has the principal responsibility for approving the project. As required by Section 15121 of the CEQA Guidelines, this EIR will (a) inform public agency decision-makers, and the public generally, of the environmental consequences of approving the proposed project, (b) identify possible ways to minimize the significant adverse environmental effects, and (c) describe reasonable and feasible project alternatives which reduce environmental effects. The public agency shall consider the information in the EIR along with other information that may be presented to the agency.

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues. CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed project, the City has determined that the proposed development is a "project" within the definition of CEQA, which has the potential for resulting in significant environmental effects.

The lead agency is required to consider the information in the EIR along with any other available information in deciding whether to approve the application. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth inducing impacts, and cumulative impacts.

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a *project-level EIR* pursuant to CEQA Guidelines Section 15161, which is an analysis that examines the environmental impacts of a specific development project. A *project-level EIR* focuses primarily on the changes in the environment that would result from the development of the project, and examines all phases of the project including planning, construction, and operation.

Background

The City of Winters adopted the General Plan[1] and certified the General Plan EIR[2] on May 19, 1992. The General Plan EIR was prepared as a program-level EIR, pursuant to Section 15168 of

[1] City of Winters. *The City of Winters General Plan Policy Document*. Adopted May 19, 1992.
[2] City of Winters. *City of Winters General Plan Final Environmental Impact Report*. Certified May 1992.

the CEQA Guidelines (Title 14, California Code of Regulations [CCR] Sections 15000 et seq.). The City of Winters General Plan EIR analyzed the proposed General Plan and Alternatives. Additionally, the City of Winters adopted the 2021 Winters Climate Action Plan (CAP) on July 20, 2021, which identifies workable climate change abatement and mitigation strategies for the City, residents, and local businesses.[3] The project site is located within the boundaries of the I-505/Grant Avenue Planning Area Land Use Modifications Project, for which an Initial Study/Mitigated Negative Declaration was approved by the City.[4] Information presented throughout this EIR is largely based on information in the City of Winters General Plan, General Plan EIR, CAP, and I-505/Grant Avenue Planning Area Land Use Modifications Project Initial Study/Mitigated Negative Declaration. Additionally, an Initial Study, which identified potentially significant impacts resulting from the proposed project, was prepared for the proposed project in November 2021.

1.2 PROJECT SUMMARY

The approximately 61.9-acre project site is located to the northwest of the State Route (SR) 128/Timber Crest Road intersection in the City of Winters, California. The project site is identified by Yolo County Assessor's Parcel Number (APN) 038-050-018. The City's General Plan currently designates the northeast portion of the site as Open Space (OS), the northwest portion as Low Density Residential (LR), and the southern portion as Neighborhood Commercial (NC). The project site's zoning designations currently consist of Open Space (O-S) in the northeast portion of the property, Single Family Residential 7,000 Square-Foot Average Minimum (R-1) in the northwest portion of the site, and Neighborhood Commercial (C-1) in the southern portion. The project site currently serves as an undeveloped agricultural field used for annual row crops.

Surrounding existing uses include an orchard to the north, across Walnut Lane, and light industrial use (Pearce Heating & Air Conditioning, Inc.) to the northeast, across Timber Crest Road; two single-family residences and associated outbuildings to the east, across Timber Crest Road; a Chevron fueling station and convenience store, a Fairfield Inn & Suites, and various fast-food retailers further to the east; a single-family residential neighborhood located to the south, across SR 128; and various commercial uses, a single-family residential neighborhood, and the Walnut Lane 10 parcel to the west. The Walnut Lane 10 parcel has been previously approved by the City for a 54-lot subdivision development and already includes paved neighborhood roads and utility infrastructure.

The proposed project would consist of various residential uses, including a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex; three commercial lots totaling 3.3 acres; 6.9 total acres of park uses; a new drainage channel parallel to the eastern site boundary; internal roadway improvements; associated utility improvements; new landscaping; and frontage improvements. The project would require City approval of a General Plan Amendment (GPA), Rezone, Tentative Subdivision Map, Planned Development (PD), Affordable Housing Plan, and a Development Agreement.

A full description of the proposed project is included in Chapter 3, Project Description, of this EIR.

[3] City of Winters. *Climate Action Plan.* July 2021.
[4] City of Winters. *Mitigated Negative Declaration - I-505/Grant Avenue Planning Area Land Use Modifications Project.* April 25, 2012.

1.3 EIR PROCESS

The EIR process begins with the decision by the lead agency to prepare an EIR, either during a preliminary review of a project or at the conclusion of an Initial Study. Once the decision is made to prepare an EIR, the lead agency sends a Notice of Preparation (NOP) to appropriate government agencies and to the State Clearinghouse (SCH) in the Office of Planning and Research (OPR), which will ensure that responsible and trustee State agencies reply within the required time. The SCH assigns an identification number to the project, which then becomes the identification number for all subsequent environmental documents on the project. Commenting agencies have 30 days to respond to the NOP and provide information regarding alternatives and mitigation measures they wish to have explored in the Draft EIR and to provide notification regarding whether the agency will be a responsible agency or a trustee agency for the project.

Upon completion of the Draft EIR and prior to circulation to State and local agencies and interested members of the public, a notice of completion is filed with the SCH and a public notice of availability is published to inform interested parties that a Draft EIR is available for agency and public review. In addition, the notice provides information regarding the location where copies of the Draft EIR are available for public review and any public meetings or hearings that are scheduled. The Draft EIR is circulated for a minimum period of 45 days, during which time reviewers may submit comments on the document to the lead agency. The lead agency must respond to comments in writing. If significant new information, as defined in CEQA Guidelines Section 15088.5, is added to an EIR after public notice of availability is given, but before certification of the EIR, the revised EIR or affected chapters must be recirculated for an additional public review period with related comments and responses.

A Final EIR will be prepared, containing public comments on the Draft EIR and written responses to those comments, as well as a list of changes to the Draft EIR text necessitated by public comments, as warranted. Before approving a project, the lead agency shall certify that the EIR (consisting of the Draft EIR and Final EIR) has been completed in compliance with CEQA, and that the EIR has been presented to the decision-making body of the lead agency, which has reviewed and considered the EIR. The lead agency shall also certify that the EIR reflects the lead agency's independent judgment and analysis.

The findings prepared by the lead agency must be based on substantial evidence in the administrative record and must include an explanation that bridges the gap between evidence in the record and the conclusions required by CEQA. If the decision-making body elects to proceed with a project that would have unavoidable significant impacts, then a Statement of Overriding Considerations explaining the decision to balance the benefits of the project against unavoidable environmental impacts must be prepared.

1.4 SCOPE OF THE EIR

This EIR constitutes a project-level analysis for the proposed project and, pursuant to CEQA Guidelines Section 15161, covers "all phases of the project including planning, construction, and operation." State CEQA Guidelines Section 15126.2(a) states, in pertinent part:

> An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.

The following environmental issue areas are addressed in the EIR:

- Aesthetics;
- Agricultural Resources;
- Air Quality and Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural and Tribal Cultural Resources;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services and Utilities; and
- Transportation.

In addition to the foregoing resource areas, an Initial Study was prepared and attached to the NOP for the proposed project to present information regarding resource areas that the proposed project has been found not to have the potential to affect (see Appendix A). A summary of each environmental issue addressed in the Initial Study is provided in Chapter 4.0, Introduction to the Analysis, of this EIR.

The evaluation of effects is presented on a resource-by-resource basis in Chapters 4.1 through 4.9 of this EIR. Each chapter is divided into the following four sections: Introduction, Existing Environmental Setting, Regulatory Context, and Impacts and Mitigation Measures. Impacts that are determined to be significant in Chapters 4.1 through 4.9, and for which feasible mitigation measures are not available to reduce those impacts to a less-than-significant level, are identified as *significant and unavoidable*. Chapter 5 of the EIR presents a discussion of growth-inducing impacts, summary of cumulative impacts, and significant irreversible environmental changes associated with the project. Alternatives to the proposed project are discussed in Chapter 6 of the EIR.

1.5 SIGNIFICANCE CRITERIA

The CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance.” In addition, the Guidelines state, “An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.” (CEQA Guidelines Section 15382).

The level of significance of an impact prior to mitigation is included at the end of each impact discussion throughout the technical chapters of this EIR. The following levels of significance prior to mitigation are used in this EIR:

- No Impact: Environmental issues for which no impact has been identified.
- Less than Significant: Impacts that may be considered adverse, but that do not exceed the specified thresholds of significance;
- Significant: Impacts that exceed the defined standards of significance and require mitigation;

- Less than Cumulatively Considerable: Where cumulative impacts have been identified, but the project's incremental contribution towards the cumulative impacts would not be considered significant; and
- Cumulatively Considerable: Where cumulative impacts have been identified and the project's incremental contribution towards the cumulative impacts would be considered significant.

If an impact is determined to be significant or cumulatively considerable, mitigation is included in order to reduce the specific impact to the maximum extent feasible. A statement of the level of significance of an impact after mitigation is also included in each impact discussion throughout the technical chapters of this EIR. The following levels of significance after implementation of mitigation are used in the EIR:

- Less than Significant: Impacts that exceed the defined standards of significance but can be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures;
- Less than Cumulatively Considerable: Where the project's incremental contribution towards cumulative impacts would be eliminated or reduced to a less than cumulatively considerable level through the implementation of feasible mitigation measures; and
- Significant and Unavoidable: An impact (project-level or cumulative) that cannot be eliminated or reduced to a less-than-significant or less than cumulatively considerable level though the implementation of feasible mitigations measures.

Each environmental area of analysis uses a distinct set of significance criteria. Where measurable and explicit quantification of significance is identified, such as violation of an ambient noise level standard, this measurement is used to assess the level of significance of a particular impact in this EIR. If criteria for determining significance relative to a specific environmental resource impact are not identified in the CEQA Guidelines, criteria were developed for this EIR.

The significance criteria are identified at the beginning of the Impacts and Mitigation Measures section in each of the technical chapters of this EIR. Although significance criteria are necessarily different for each resource considered, the provided significance levels ensure consistent evaluation of impacts for all resource areas evaluated.

1.6 NOTICE OF PREPARATION AND SCOPING

In accordance with CEQA Guidelines Section 15082, an NOP was circulated to the public, local, State and federal agencies, and other known interested parties for a 30-day public and agency review period from November 18, 2021 through December 17, 2021 (see Appendix A). The purpose of the NOP was to provide notification that an EIR for the proposed project was being prepared and to solicit public input on the scope and content of the document.

In addition, pursuant to CEQA Guidelines Section 15082, the City held an NOP scoping meeting during the public review period on November 30, 2021 at 2:30 PM, for the purpose of receiving comments on the scope of the environmental analysis to be prepared for the proposed project. Agencies and members of the public were invited to attend and provide input on the scope of the EIR. Verbal comments were provided by five commenters at the NOP scoping meeting, and four written letters were submitted during the NOP public review period; one additional comment letter was received after the close of the public review period. The comment letters are provided as Appendix B to this EIR. All comments were taken into consideration during the preparation of this

EIR, and a summary of the NOP comments received, including verbal and written comments, is provided in Section 1.7 below.

1.7 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

During the NOP scoping meeting and public review period, the City received comments from five verbal commenters and four written comment letters, as well as one comment letter received after the close of the public review period. A copy of each letter is provided in Appendix B of this EIR. The comment letters received during the NOP public review period were authored by the following representatives of public agencies and individual members of the public:

Public Agencies

- California Department of Conservation – Monique Wilber;
- California Department of Conservation, Geologic Energy Management Division – Miguel Cabrera;
- Central Valley Regional Water Quality Control Board – Peter G. Minkel;
- County of Yolo – Taro Echiburú, Department of Community Services; and
- Native American Heritage Commission – Katy Sanchez.

General Public

- Kate Laddish;
- Kathryn Charbonneau;
- Katie Skalicky;
- Nathan Skalicky;
- Ozzy Arce; and
- Richard Handlen.

The following list, categorized by issue, summarizes the concerns brought forth in the verbal and written comments received on the scope of the EIR:

Introduction to Analysis (and Initial Study) *(Chapter 4.0)*	Concerns related to: • Compliance with the applicable Basin Plan; • Compliance with the Antidegradation Implementation Policy; • Compliance with all permitting requirements; • Potential impacts to surface and groundwater quality during construction and operation; • Increased runoff; • Soil erosion and sedimentation impacts; • Infiltration and stormwater conveyance; • Potential for using larger amount of permeable paving; • Potential for increased chemical load entering Putah Creek; • Potential erosion during times of peak flow; • Wildfire risk; and • Presence of a historic oil well on-site.
Aesthetics *(Chapter 4.1)*	Concerns related to: • Creation of light and glare; • Aesthetic impact of new parking lots; • Aesthetic impact of new signage; • Aesthetic impact of proposed landscaping and tree plantings.

Agricultural Resources *(Chapter 4.2)*	Concerns related to: • Compliance with Yolo County General Plan Policies regarding setbacks between urban and agricultural uses; • Potential conflicts with 500-foot aerial spraying and 300-foot ground application setback requirements; • Potential conflicts with the County's Right-to-Farm Ordinance; • Direct and indirect conversion of agricultural land; • Impacts on any current and future agricultural operations in the vicinity; • Potential loss of agricultural support infrastructure; • Incremental impacts leading to cumulative impacts on agricultural land; • Adequacy of proposed mitigation measures for all impacted agricultural lands within the proposed project area; • Compatibility with Williamson Act contracts; and • Notification of Williamson Act contract non-renewal and/or cancellation.
Air Quality, GHG Emissions, and Energy *(Chapter 4.3)*	Concerns related to: • Heat island effects; • Impacts of stoves and uses of natural gas; • Impacts on the air quality in adjacent neighborhoods; • Efficient energy use; and • Air quality impacts during construction and operation.
Biological Resources *(Chapter 4.4)*	Concerns related to: • Compliance with the Endangered Species Act; • Impacts of light and glare on birds and insects; • Impacts to waters regulated under Section 404 of the Clean Water Act; and • Impacts on salmon in Putah Creek.
Cultural and Tribal Cultural Resources *(Chapter 4.5)*	Concerns related to: • Potential impacts to tribal cultural resources.
Land Use and Planning/ Population and Housing *(Chapter 4.6)*	Concerns related to: • Mix of housing types.
Noise *(Chapter 4.7)*	Concerns related to: • Additional noise in adjacent neighborhoods.
Public Services and Utilities *(Chapter 4.8)*	Concerns related to: • Fire protection; • Reduced availability of public services in adjacent neighborhoods; and • Impacts to the City's water supply.
Transportation *(Chapter 4.9)*	Concerns related to: • Impacts on pedestrian facilities; • Evacuation scenarios with increased traffic generated by the proposed project; • Pedestrian and bike connectivity; • Adequacy of potential VMT mitigation; • Need for additional connectivity to surrounding area; • Additional traffic in adjacent neighborhoods; and • Sidewalk design and compliance with the ADA.

The issues are addressed in this EIR, in the relevant sections identified in the first column, as well as in the Initial Study, attached to the NOP, and included in Appendix A.

1.8 DRAFT EIR AND PUBLIC REVIEW

This Draft EIR is being circulated for public review and comment for a period of 45 days. During this period, the general public, organizations, and agencies can submit comments to the Lead Agency on the Draft EIR's accuracy and completeness. Release of the Draft EIR marks the beginning of a 45-day public review period pursuant to CEQA Guidelines Section 15105. The public can review the Draft EIR online at:

https://www.cityofwinters.org/333/Community-Development-Reports-Resources

In addition, the Draft EIR is available at the following address during normal business hours:

City of Winters Community Development Department
318 First Street
Winters, CA 95694

All comments or questions regarding the Draft EIR should be addressed to:

Dave Dowswell
City of Winters Community Development Department
318 First Street
Winters, CA 95694
(530) 795-4910
Dave.Dowswell@cityofwinters.org

1.9 ORGANIZATION OF THE DRAFT EIR

The EIR is organized into the following sections:

Chapter 1 – Introduction

The Introduction chapter of the EIR provides an introduction and overview describing the intended use of the EIR and the review and certification process, as well as summaries of the chapters included in the EIR and summaries of the issues and concerns received from the public and public agencies during the NOP review period.

Chapter 2 – Executive Summary

The Executive Summary chapter of the EIR summarizes the elements of the project and the environmental impacts that would result from implementation of the proposed project, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation. In addition, the Executive Summary includes a summary of the project alternatives and areas of known controversy.

Chapter 3 – Project Description

The Project Description chapter of the EIR provides a detailed description of the proposed project, including the project's location, background information, objectives, technical characteristics, and the required entitlements and approvals.

Chapter 4 – Environmental Setting, Impacts, and Mitigation

Contains project-specific and cumulative analyses of environmental issue areas associated with the proposed project. The section for each environmental issue contains an introduction and description of the setting of the project site, identifies impacts, and recommends appropriate mitigation measures.

Chapter 5 – Statutorily Required Sections

The Statutorily Required Sections chapter of the EIR provides discussions required by CEQA regarding impacts that would result from the proposed project, including a summary of cumulative impacts, potential growth-inducing impacts, significant and unavoidable impacts, and significant irreversible changes to the environment.

Chapter 6 – Alternatives Analysis

The Alternatives Analysis chapter of the EIR describes and evaluates the alternatives to the proposed project, compares the environmental impacts associated with each to those associated with the proposed project, and identifies the environmentally superior alternative. The chapter also includes a discussion/summary of those alternatives that were considered but dismissed.

Chapter 7 – References

The References chapter of the EIR provides bibliographic information for all references and resources cited.

Chapter 8 – EIR Authors and Persons Consulted

The EIR Authors and Persons Consulted chapter of the EIR lists authors involved in the preparation and review of the EIR, including those who provided technical assistance.

Appendices

The Appendices include the NOP with the Initial Study attached, comments received during the NOP comment period, and technical reports prepared for the proposed project.

2. Executive Summary

2. EXECUTIVE SUMMARY

2.1 INTRODUCTION

The Executive Summary chapter of the EIR provides an overview of the proposed project (see Chapter 3, Project Description, for further details) and provides a table summary of the conclusions of the environmental analysis provided in Chapters 4.1 to 4.9. This chapter also, summarizes the alternatives to the proposed project that are described in Chapter 6, Alternatives Analysis, of this EIR and identifies the Environmentally Superior Alternative. Table 2-1 contains the environmental impacts associated with the proposed project, the significance of the impacts, the proposed mitigation measures for the impacts, and the significance of the impacts after implementation of the mitigation measures.

2.2 SUMMARY DESCRIPTION OF THE PROPOSED PROJECT

The approximately 61.9-acre project site is located to the northwest of the State Route (SR) 128/Timber Crest Road intersection in the City of Winters, California. The project site is identified by Yolo County Assessor's Parcel Number (APN) 038-050-018. The City's General Plan currently designates the northeast portion of the site as Open Space (OS), the northwest portion as Low Density Residential (LR), and the southern portion as Neighborhood Commercial (NC). The project site's zoning designations currently consist of Open Space (O-S) in the northeast portion of the property, Single Family Residential 7,000 Square-Foot Average Minimum (R-1) in the northwest portion of the site, and Neighborhood Commercial (C-1) in the southern portion. The project site currently serves as an undeveloped agricultural field used for annual row crops.

Surrounding existing uses include an orchard to the north, across Walnut Lane, and light industrial use (Pearce Heating & Air Conditioning, Inc.) to the northeast, across Timber Crest Road; two single-family residences and associated outbuildings to the east, across Timber Crest Road; a Chevron fueling station and convenience store, a Fairfield Inn & Suites, and various fast-food retailers further to the east; a single-family residential neighborhood located to the south, across SR 128; and various commercial uses, a single-family residential neighborhood, and the Walnut Lane 10 parcel to the west. The Walnut Lane 10 parcel has been previously approved by the City for a 54-lot subdivision development and already includes paved neighborhood roads and utility infrastructure.

The proposed project would consist of various residential uses, including a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex; three commercial lots totaling 3.3 acres with approximately 37,000 square feet (sf) of commercial buildings; 6.9 total acres of park uses; a new drainage channel parallel to the eastern site boundary; internal roadway improvements; associated utility improvements; new landscaping; and frontage improvements. The project would require City approval of a General Plan Amendment (GPA), Rezone, Tentative Subdivision Map, Planned Development (PD), Affordable Housing Plan, and a Development Agreement.

A full description of the proposed project is included in Chapter 3, Project Description, of this EIR.

2.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, mineral, flora, fauna, ambient noise, and objects of historic or aesthetic significance. Mitigation measures must be implemented as part of the proposed project to reduce potential adverse impacts to a less-than-significant level. Such mitigation measures are noted in this EIR and are found in the Initial Study prepared for the proposed project (see Appendix A), as well as the following technical chapters: Aesthetics; Agricultural Resources; Air Quality, Greenhouse Gas Emissions, and Energy; Biological Resources; Cultural and Tribal Cultural Resources; Land Use and Planning/Population and Housing; Noise; Public Services and Utilities; and Transportation. The mitigation measures presented in the EIR and Initial Study will form the basis of the Mitigation Monitoring and Reporting Program. Any impact that remains significant after implementation of mitigation measures is considered a significant and unavoidable impact.

A summary of the identified impacts in the technical chapters (Chapters 4.1 - 4.9) of the EIR is presented in Table 2-1, included at the end of this chapter. In addition, Table 2-1 includes the level of significance of each impact, any mitigation measures required for each impact, and the resulting level of significance after implementation of mitigation measures for each impact.

2.4 SUMMARY OF PROJECT ALTERNATIVES

The following section presents a summary of the evaluation of the alternatives considered for the proposed project, which include the following:

- No Project (No Build) Alternative;
- Buildout Pursuant to Existing General Plan Alternative; and
- Agricultural Preservation Alternative.

For a more thorough discussion of project alternatives, refer to Chapter 6, Alternatives Analysis, of this EIR.

No Project (No Build) Alternative

The No Project (No Build) Alternative assumes that the current conditions of the project site would remain, and the site would not be developed. As described in this EIR, the project site has been farmed, and thus, periodically tilled for row crops, hay, or other types of dry farming. Currently, the site is used for annual row crops. Vegetation within the project site consists primarily of ruderal non-native species, and the perimeter of the site contains numerous trees and shrubs. The No Project (No Build) Alternative would not meet any of the project objectives and would not meet the overall intent of the City's General Plan land use designations for this site.

Buildout Pursuant to Existing General Plan Alternative

The Buildout Pursuant to Existing General Plan Alternative would consist of buildout of the project site according to the current General Plan land use designations as shown in Figure 6-2 of the Alternatives Chapter of this EIR. Under the Buildout Pursuant to Existing General Plan Alternative, the project site would be developed with 33.7 acres of LR, 13.5 acres of OS, and 14.7 acres of NC uses.

In comparison to the proposed project, the Buildout Pursuant to Existing General Plan Alternative would result in the development of approximately 246 residential units. As such, the Buildout Pursuant to Existing General Plan Alternative would result in 83 fewer residential units than the proposed project. In addition, the OS area would be more under the Alternative by 4.4 acres in comparison to the proposed project, and the NC area would be increased by 11.4 acres as compared to the proposed project. Based on a total of 14.7 acres of NC-designated land and a maximum floor area ratio (FAR) of 0.40, the Alternative could include a maximum of 256,133 sf of commercial development, which would represent an increase of 219,133 sf as compared to the 37,000 sf included as part of the proposed project. Although the Buildout Pursuant to Existing General Plan Alternative would include a decreased residential density and fewer residential units than the proposed project, the amount of open space would be greater than currently proposed, which could result in a smaller area of disturbance. As such, the Alternative is reasonably assumed to result in an overall lesser disturbance area than the proposed project.

Due to the residential nature of the Buildout Pursuant to Existing General Plan Alternative, and because the design would generally resemble the proposed project, including the development of open space, new roadways, and commercially designated land along SR 128, most project objectives would be fully or partially met. However, because the Alternative would not provide a mix of residential types, Project Objective #1 would not be completely met.

Agricultural Preservation Alternative

The Agricultural Preservation Development Alternative would include the same number of total units on the area currently designated as residential (approximately 34 acres) as shown in Figure 6-3 of the Alternatives chapter of this EIR. In order to develop the same number of units, the residential portion of the Alternative would need an increased density and require a High Density Residential (HR) designation. The amount of on-site commercial development along the SR 128 frontage would be the same as the existing land use designation (14.7 acres), which would represent an increase of 219,133 sf as compared to the proposed project for a total of 256,133 sf. The remaining acreage would be developed as open space, including a portion of the proposed Lot G drainage channel.

The Agricultural Preservation Alternative would require a General Plan Amendment and Rezone to change the land use designations of the project site to HR, allowing for 10.1 to 20 du/ac. As such, the southern portion of the project site could be developed at a maximum density of 20 du/ac. Table 6-1 in Chapter 6, Alternatives, of this EIR, provides a summary of the land uses that would be developed under the Agricultural Preservation as compared to the proposed project.

The overall disturbance area of the project site would be reduced in order to preserve a portion of the agricultural land on-site. Similar to the proposed project, the Agricultural Preservation Alternative would include various off-site improvements required under the proposed project. Such improvements would be located to the east and west of the proposed East Main Street and include a 12-foot-wide right-turn lane, an attached six-foot-wide bicycle lane, two new ditches, and an eight-foot-wide Class I multi-use pathway and landscaping. It should be noted that the alternative site would extend northward to accommodate a roadway to the Walnut 10 parcel.

Due to the residential and commercial nature of the Agricultural Preservation Alternative, some project objectives would be fully or partially met. However, because the Alternative would not include a mix of housing choices at varying densities, Objectives #2 and #3 would not be met. In addition, because the Alternative would exclude a portion of the project site, development could

arguably achieve the opposite of Objective #6, which aims to develop an "…efficient, orderly, and logical development and discourage[s]… piecemeal development and sprawl."

Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. The environmentally superior alternative is generally the alternative that would be expected to generate the least amount of significant impacts. Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets the goals or needs of the City. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." In this case, the No Project (No Build) Alternative would be considered the environmentally superior alternative, because the project site is assumed to remain in its current condition under the alternative. Consequently, many of the impacts resulting from the proposed project would not occur under the Alternative.

The Agricultural Preservation Alternative would result in fewer impacts than the proposed project related to each issue area for which project impacts were identified, whereas the other alternatives considered in this EIR would result in greater or similar impacts for some issue areas. Therefore, the Agricultural Preservation Alternative would be considered the Environmentally Superior Alternative. However, the significant and unavoidable impacts that were identified for the proposed project would still occur under the Agricultural Preservation Alternative, although the impacts related to GHG emissions and VMT would be slightly reduced. As such, the number of significant and unavoidable impacts overall would be the same under the Agricultural Preservation Alternative and the proposed project.

2.5 AREAS OF CONTROVERSY

The CEQA Guidelines, Section 15123(b), require that this EIR consider areas of controversy known to the lead agency, including issues raised by agencies and the public. Areas of controversy that were identified in NOP comment letters should be considered, as well. The areas of known controversy for the proposed project relate to the following:

- Compliance with all permitting requirements, applicable plans, and policies;
- Potential impacts to surface, groundwater, and water quality during and after construction including impacts to Putah Creek;
- Soil erosion and sedimentation impacts;
- Wildfire risk and fire protection;
- The presence of historic oil well on site;
- Impacts related to the creation of light and glare;
- Aesthetic impacts of new parking lots, signage, and landscaping trees;
- Compliance with Yolo County General Plan Policies regarding setbacks between urban and agricultural uses;
- Impacts on any current and future agricultural operations in the vicinity;
- Compatibility with Williamson Act contracts;
- Heat island effects;
- Impacts to air quality;
- Impacts of energy use;

- Impacts on Biological resources and protected species;
- Potential impacts to cultural and tribal cultural resources;
- The proposed mix of housing types;
- Noise increases in adjacent neighborhoods;
- Reduced availability of public services in adjacent neighborhoods;
- Impacts to the City's water supply;
- Impacts on infrastructure, traffic, and facilities;
- Evacuation scenarios generated by the proposed project;
- Pedestrian and bike connectivity;
- Adequacy of potential VMT mitigation; and
- Sidewalk design and compliance with the Americans with Disabilities Act.

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.1 Aesthetics			
4.1-1 Have a substantial adverse effect on a scenic vista.	LS	*None required.*	N/A
4.1-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.	LS	*None required.*	N/A
4.1-3 In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from a publicly accessible vantage point) or, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	LS	*None required.*	N/A
4.1-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	S	*4.1-4(a) Prior to approval of Improvement Plans, the project applicant shall submit a photometric and proposed lighting plan for the project to the City of Winters Community Development Department for review and approval, demonstrating that the proposed lighting will not adversely affect adjacent areas. The lighting plan shall include, but not necessarily be limited to, the following provisions:*	LS

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		• *Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties;* • *Place and shield or screen flood and area lighting needed for construction activities and/or security so as not to disturb adjacent residential areas and passing motorists; and* • *For public lighting, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, metal halide lamps, or fluorescent bulbs) or that blink or flash.* *4.1-4(b) Prior to approval of building permits, the project applicant shall submit final plans that demonstrate the use of appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage to prevent light and glare from adversely affecting motorists on nearby roadways. Proof or compliance shall be submitted to the City of Winters Community Development Department for review and approval.*	
4.1-5 Long-term changes in visual character associated with cumulative development of the proposed project in combination with future	LCC	*None required.*	N/A

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Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation		Mitigation Measures	Level of Significance After Mitigation
	buildout of the City of Winters General Plan Study Area.				
4.1-6	**Creation of new sources of light or glare associated with cumulative development of the proposed project in combination with future buildout of the City of Winters General Plan Study Area.**	LS	*None required.*		N/A
	4.2 Agricultural Resources				
4.2-1	**Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.**	S	*4.2-1*	*Prior to initiation of grading activities for each phase of development at the Farmstead Subdivision Project site, the project applicant shall set aside in perpetuity, at a minimum ratio of 1:1 of active agricultural acreage, an amount equal to the current phase. The applicant may choose to set aside in perpetuity an amount equal to the remainder of the project site instead of at each phase. The agricultural land shall be located elsewhere in unincorporated Yolo County, through the purchase of development rights and execution of an irreversible conservation or agricultural easement.*	SU
4.2-2	**Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.**	LS	*None required.*		N/A
4.2-3	**Involve changes in the existing environment which, due to**	CC, S	*4.2-3*	*Implement Mitigation Measure 4.2-1.*	CC, SU

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Table 2-1
Summary of Impacts and Mitigation Measures

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	their location or nature, could cumulatively result in loss of Farmland to non-agricultural use.			
	4.3 Air Quality, Greenhouse Gas Emissions, and Energy			
4.3-1	**Conflict with or obstruct implementation of the applicable air quality plan during project construction.**	LS	*None required.*	N/A
4.3-2	**Conflict with or obstruct implementation of the applicable air quality plan during project operation.**	LS	*None required.*	N/A
4.3-3	**Expose sensitive receptors to substantial pollutant concentrations.**	LS	*None required.*	N/A
4.3-4	**Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.**	LS	*None required.*	N/A
4.3-5	**Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.**	LS	*None required.*	N/A
4.3-6	**Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable**	LCC	*None required.*	N/A

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Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation		Mitigation Measures	Level of Significance After Mitigation
	federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).				
4.3-7	**Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.**	CC, S	*4.3-7(a)*	*The following requirements shall be noted on project improvement plans, subject to review and approval by the City of Winters Community Development Department:* • *The proposed project shall be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; and* • *The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces.* *If the use of all-electric for any project component(s) (e.g., an appliance) is not enforceable or commercially feasible at the time of issuance of building permit, the applicant shall be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric. The emissions from the use of natural gas shall be*	CC, SU

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Table 2-1
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		calculated by a qualified professional utilizing YSAQMD-, CARB-, or the USEPA-approved emissions models and quantification methods available and submitted to the City for review and approval, which shall include third-party review by a qualified consultant of the City's selection and be subject to applicant reimbursement of consultant costs. *Any and all GHG credits to off-set for the use of natural gas must be created through a CARB-approved registry. These registries are currently the ACR, CAR, and Verra, although CARB may accredit additional registries in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. The selected protocol must demonstrate that the GHG-emissions reductions are real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR 95802(a) are provided below.* *(1) Real: GHG reductions or enhancements result from a demonstrable action or set of actions and are quantified using appropriate,*	

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		accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the [GHG credit] project boundary and account for uncertainty and the potential for activity-shifting and market-shifting leakage. *(2) Additional: GHG reductions or removals that exceed any GHG reduction, or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario.* *(3) Permanent: GHG reductions and removal enhancements are not reversible or, when GHG reductions and GHG-removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG-emission reductions and GHG-removal enhancements to ensure that all credited reductions endure for at least 100 years.* *(4) Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG-removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the [GHG credit] project boundary, while accounting for uncertainty. activity-shifting, and market-shifting leakage.*	

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		(5) Verifiable: A [GHG credit] project report assertion is well-documented and transparent such that it lends itself to an objective review by an accredited verification body. *(6) Enforceable: The authority for CARB to hold a particular party liable and take appropriate action if any of the provisions of this article are violated. Note that this definition of enforceability is specific to the Cap-and-Trade regulation, where CARB holds enforcement authority, but this measure will employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and backed by a legal instrument or contract that defines exclusive ownership.* ***Geographic Prioritization of GHG Credits*** *GHG credits from reduction projects in the City will be prioritized before projects in larger geographies (i.e., northern California, California, United States, and international). The applicant will inform brokers of the required geographic prioritization for the procurement of GHG credits. GHG credits from reduction projects identified in the City that are of equal or lesser cost compared to the settlement price of the latest Cap-and-Trade auction must be included in the transaction. GHG credits from reduction projects outside of the City may be purchased if adequate credits cannot be found*	

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		in the City or if they exceed the maximum price identified above. The economic and geographic analysis undertaken to inform the selection of GHG credits must be provided by the applicant to the City as part of the required documentation discussed below under Plan Implementation and Reporting. ***Types of GHG Credits*** *GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project-generated emissions at any time. GHG credits from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated through a prorated surcharge of additional FMUs proportional to the effect of the delay. Because emissions of CO2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10 percent for every year of lag between project emissions and their reduction*	

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		through a FMU will be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 metric ton of project GHG emissions generated in the year prior to funding and implementation of the FMU). ***Verification and Independent Review of GHG Credits*** *All GHG credits will be verified by an independent verifier accredited by the ANSI National Accreditation Board (ANAB) or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the accreditation board (i.e., ANAB or CARB), the verifier will certify the following.* • *GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. Verification of the latter requires certification that the credits meet or exceed the standards in 17 CCR 95972.* • *GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.* • *GHG credits are purchased according to the geographic prioritization standard defined in this measure under Geographic Prioritization of GHG Credits.*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that will result from future projects, additional verification must occur beyond initial certification is required. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification will examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. The applicant will retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project. *4.3-7(b) Implement Mitigation Measure 4.9-2.*	
4.3-8 Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.	LCC	*None required.*	N/A
4.4 Biological Resources			
4.4-1 Have a substantial adverse effect, either directly or through habitat modifications, on any special-status plant species identified as a candidate, sensitive, or	S	*4.4-1 If construction has not commenced prior to the first day of spring 2026 (March 20, 2026), a new round of special-status plant surveys shall be conducted by a qualified biologist in areas proposed for disturbance, prior to the commencement of construction.*	LS

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special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.		*The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the California Native Plant Society (CNPS) Botanical Survey Guidelines of the California Native Plant Society, and the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The surveys shall be conducted at the appropriate time of year when plants are in bloom. A report summarizing the results of the protocol-level special-status plant surveys shall be submitted for review and approval to the City of Winters Community Development Department.* *If special-status plant species are not found, further mitigation shall not be required. If special-status plants are found within the proposed impact area and they are perennials, such as recurved larkspur, then mitigation shall consist of digging up the plants and transplanting them into a suitable mitigation area prior to construction. If the plant found is an annual, such as dwarf downingia or bearded popcornflower, then mitigation shall consist of collecting seed-bearing soil and spreading it into a suitable constructed wetland at a mitigation site. If special-status plants will be impacted, a mitigation plan shall be developed and approved by the City of Winters Community*	

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		Development Department. Mitigation for the transplantation/establishment of rare plants shall result in no net loss of individual plants after a five-year monitoring period.	
4.4-2 Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle or giant garter snake.	S	*Northwestern Pond Turtle* *4.4-2(a) Yolo HCP/NCCP AMM14: There are no specific design requirements for western pond turtle habitat, however, project proponents must follow design requirements for the valley foothill riparian and lacustrine and riverine natural communities described in AMMs 9 and 10, which require a 100-foot (minimum) permanent buffer zone from the canopy drip-line (the farthest edge on the ground where water will drip from the tree canopy, based on the outer boundary of the tree canopy). If modeled upland habitat will be impacted, a qualified biologist must be present and will assess the likelihood of western pond turtle nests occurring in the disturbance area (based on sun exposure, soil conditions, and other species habitat requirements). If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, the qualified biologist will monitor all initial ground disturbing activity for nests that may be unearthed during the disturbance, and will move out of harm's way any turtles or hatchlings found.* *Giant Garter Snake* *4.4-2(b) Yolo HCP/NCCP AMM15: The project proponent will avoid effects on areas where planning-level surveys*	LS

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		indicate the presence of suitable habitat for giant garter snake. To avoid effects on giant garter snake aquatic habitat, the project proponent will conduct no in-water/in-channel activity and maintain a permanent 200-foot non-disturbance buffer from the outer edge of potentially occupied aquatic habitat. If the project proponent cannot avoid effects of construction activities, the project proponent will implement the measures below to minimize effects of construction projects (measures for maintenance activities are described after the following bulleted list). • *Conduct preconstruction clearance surveys using USFWS-approved methods within 24 hours prior to construction activities within identified giant garter snake aquatic and adjacent upland habitat. If construction activities stop for a period of two weeks or more, conduct another preconstruction clearance survey within 24 hours prior to resuming construction activity.* • *Restrict all construction activity involving disturbance of giant garter snake habitat to the snake's active season, May 1 through October 1. During this period, the potential for direct mortality is reduced because snakes are expected to move and avoid danger.* • *In areas where construction is to take place, encourage giant garter snakes to leave the*	

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		site on their own by dewatering all irrigation ditches, canals, or other aquatic habitat (i.e., removing giant garter snake aquatic habitat) between April 15 and September 30. Dewatered habitat must remain dry, with no water puddles remaining, for at least 15 consecutive days prior to excavating or filling of the habitat. If a site cannot be completely dewatered, netting and salvage of giant garter snake prey items may be necessary to discourage use by snakes. • *Provide environmental awareness training for construction personnel, as approved by the Conservancy. Training may consist of showing a video prepared by a qualified biologist, or an in-person presentation by a qualified biologist. In addition to the video or in-person presentation, training may be supplemented with the distribution of approved brochures and other materials that describe resources protected under the Yolo HCP/NCCP and methods for avoiding effects.* • *A qualified biologist will prepare a giant garter snake relocation plan which must be approved by the Conservancy prior to work in giant garter snake habitat. The qualified biologist will base the relocation plan on criteria provided by CDFW or USFWS, through the Conservancy.*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *If a live giant garter snake is encountered during construction activities, immediately notify the project's biological monitor and USFWS and CDFW. The monitor will stop construction in the vicinity of the snake, monitor the snake, and allow the snake to leave on its own. The monitor will remain in the area for the remainder of the work day to ensure the snake is not harmed or, if it leaves the site, does not return. If the giant garter snake does not leave on its own, the qualified biologist will relocate the snake consistent with the relocation plan described above.* • *Employ the following management practices to minimize disturbances to habitat:* ○ *Install temporary fencing to identify and protect adjacent marshes, wetlands, and ditches from encroachment from construction equipment and personnel.* ○ *Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted practices. No plastic, monofilament, jute, or similar erosion-control matting that could entangle snakes or other wildlife will be permitted.*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Ongoing maintenance covered activities by local water and flood control agencies typically involve removal of vegetation, debris, and sediment from water conveyance canals as well as resloping, rocking, and stabilizing the canals that serve agricultural water users. Maintenance of these conveyance facilities can typically occur only from mid-January through April when conveyance canals and ditches are not in service by the agency, although some drainages are used for storm conveyance during the winter and are wet all year. This timing is during the giant garter snake's inactive period. This is when snakes may be using underground burrows and are most vulnerable to take because they are unable to move out of harm's way. Maintenance activities, therefore, will be limited to the giant garter snake's active season (May 1 to October 1) when possible. All personnel involved in maintenance activities within giant garter snake habitat will first participate in environmental awareness training for giant garter snake, as described above for construction-related activities. To minimize the take of giant garter snake, the local water or flood control agency will limit maintenance of conveyance structures located within modeled giant garter snake habitat (Appendix A, Covered Species Accounts) to clearing one side along at least 80 percent of the linear distance of canals and ditches during each maintenance year (e.g., the left bank of a canal is maintained in the first year and the right bank in the second year). To avoid collapses when	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		resloping canal and ditch banks composed of heavy clay soils, clearing will be limited to one side of the channel during each maintenance year. *For channel maintenance activities conducted within modeled habitat for giant garter snake, the project proponent will place removed material in existing dredged sites along channels where prior maintenance dredge disposal has occurred. For portions of channels that do not have previously used spoil disposal sites and where surveys have been conducted to confirm that giant garter snakes are not present, removed materials may be placed along channels in areas that are not occupied by giant garter snake and where materials will not re-enter the canal because of stormwater runoff.* *Modifications to this AMM may be made with the approval of the Conservancy, USFWS, and CDFW.*	
4.4-3 Have a substantial adverse effect, either directly or through habitat modifications, on tricolored blackbird.	S	*4.4-3* *Yolo HCP/NCCP AMM21: The project proponent will retain a qualified biologist to identify and quantify (in acres) tricolored blackbird nesting and foraging habitat (as defined in Appendix A, Covered Species Accounts) within 1,300 feet of the footprint of the covered activity. If a 1,300-foot buffer from nesting habitat cannot be maintained, the qualified biologist will check records maintained by the Conservancy (which will include CNDDB data, and data from the tricolored blackbird portal) to determine if tricolored blackbird nesting colonies have been active in or*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		within 1,300 feet of the project footprint during the previous five years. If there are no records of nesting tricolored blackbirds on the site, the qualified biologist will conduct visual surveys to determine if an active colony is present, during the period from March 1 to July 30, consistent with protocol described by Kelsey (2008). *Operations and maintenance activities or other temporary activities that do not remove nesting habitat and occur outside the nesting season (March 1 to July 30) do not need to conduct planning or construction surveys or implement any additional avoidance measures.* *If an active tricolored blackbird colony is present or has been present within the last five years within the planning-level survey area, the project proponent will design the project to avoid adverse effects within 1,300 feet of the colony site(s), unless a shorter distance is approved by the Conservancy, USFWS, and CDFW. If a shorter distance is approved, the project proponent will still maintain a 1,300-foot buffer around active nesting colonies during the nesting season but may apply the approved lesser distance outside the nesting season. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.4-4 Have a substantial adverse effect, either directly or through habitat modifications, on burrowing owl.	S	*4.4-4* *Yolo HCP/NCCP AMM18: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify western burrowing owl habitat (as defined in Appendix A, Covered Species Accounts) within or adjacent to (i.e., within 500 feet of) a covered activity. If habitat for this species is present, additional surveys for the species by a qualified biologist are required, consistent with CDFW guidelines (Appendix L).* *If burrowing owls are identified during the planning-level survey, the project proponent will minimize activities that will affect occupied habitat as follows. Occupied habitat is considered fully avoided if the project footprint does not impinge on a nondisturbance buffer around the suitable burrow. For occupied burrowing owl nest burrows, this nondisturbance buffer could range from 150 to 1,500 feet (Table 4-2, Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls [incorporated as Table 4.4-2 of this chapter]), depending on the time of year and the level of disturbance, based on current guidelines (California Department of Fish and Game 2012). The Yolo HCP/NCCP generally defines low, medium, and high levels of disturbances of burrowing owls as follows.* • *Low: Typically 71-80 dB, generally characterized by the presence of passenger vehicles, small gas-powered engines (e.g.,*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		lawn mowers, small chain saws, portable generators), and high-tension power lines. Includes electric hand tools (except circular saws, impact wrenches and similar). Management and enhancement activities would typically fall under this category. Human activity in the immediate vicinity of burrowing owls would also constitute a low level of disturbance, regardless of the noise levels. • *Moderate: Typically 81-90 dB, and would include medium- and large-sized construction equipment, such as backhoes, front end loaders, large pumps and generators, road graders, dozers, dump trucks, drill rigs, and other moderate to large diesel engines. Also includes power saws, large chainsaws, pneumatic drills and impact wrenches, and large gasoline-powered tools. Construction activities would normally fall under this category.* • *High: Typically 91-100 dB, and is generally characterized by impacting devices, jackhammers, compression ("jake") brakes on large trucks, and trains. This category includes both vibratory and impact pile drivers (smaller steel or wood piles) such as used to install piles and guard rails, and large pneumatic tools such as chipping machines. It may also include large diesel and gasoline*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		engines, especially if in concert with other impacting devices. Felling of large trees (defined as dominant or subdominant trees in mature forests), truck horns, yarding tower whistles, and muffled or underground explosives are also included. Very few covered activities are expected to fall under this category, but some construction activities may result in this level of disturbance.	

Table 4.4.2
Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls

	Level of Disturbance (feet) from Occupied Burrows		
Time of Year	**Low**	**Medium**	**High**
April 1-August 15	600	1,500	1,500
August 16-October 15	600	600	1,500
October 16-March 31	150	300	1,500

Source: Yolo Habitat Conservancy. Yolo County Habitat Conservation Plan/Natural Community Conservation Plan [Table 4-2]. April 2018.

The project proponent may qualify for a reduced buffer size, based on existing vegetation, human development, and land use, if agreed upon by CDFW

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		and USFWS (California Department of Fish and Game 2012). *If the project does not fully avoid direct and indirect effects on nesting sites (i.e., if the project cannot adhere to the buffers described above), the project proponent will retain a qualified biologist to conduct preconstruction surveys and document the presence or absence of western burrowing owls that could be affected by the covered activity. Prior to any ground disturbance related to covered activities, the qualified biologist will conduct the preconstruction surveys within three days prior to ground disturbance in areas identified in the planning-level surveys as having suitable burrowing owl burrows, consistent with CDFW preconstruction survey guidelines (Appendix L, Take Avoidance Surveys). The qualified biologist will conduct the preconstruction surveys three days prior to ground disturbance. Time lapses between ground disturbing activities will trigger subsequent surveys prior to ground disturbance.* *If the biologist finds the site to be occupied by western burrowing owls during the breeding season (February 1 to August 31), the project proponent will avoid all nest sites, based on the buffer distances described above, during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups that forage on or near the site following fledging).*	

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		Occupancy of burrowing owl habitat during preconstruction surveys is confirmed at a site when at least one burrowing owl or sign (fresh whitewash, fresh pellets, feathers, or nest ornamentation) is observed at or near a burrow entrance. Construction may occur inside of the disturbance buffer during the breeding season if the nest is not disturbed and the project proponent develops an AMM plan that is approved by the Conservancy, CDFW, and USFWS prior to project construction, based on the following criteria: • *The Conservancy, CDFW, and USFWS approves the AMM plan provided by the project proponent.* • *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).* • *The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.* • *If the qualified biologist identifies a change in owl nesting and foraging behavior as a result of construction activities, the qualified biologist will have the authority to stop all construction related activities within the non-disturbance buffers described above. The qualified biologist will report this information*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		to the Conservancy, CDFW, and USFWS within 24 hours, and the Conservancy will require that these activities immediately cease within the non-disturbance buffer. Construction cannot resume within the buffer until the adults and juveniles from the occupied burrows have moved out of the project site, and the Conservancy, CDFW, and USFWS agree. • *If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the project proponent may remove the nondisturbance buffer, only with concurrence from CDFW and USFWS. If the burrow cannot be avoided by construction activity, the biologist will excavate and collapse the burrow in accordance with CDFW's 2012 guidelines to prevent reoccupation after receiving approval from the wildlife agencies.* *If evidence of western burrowing owl is detected outside the breeding season (December 1 to January 31), the project proponent will establish a non-disturbance buffer around occupied burrows, consistent with Table 4-2 (incorporated as Table 4.4-2 of this chapter), as determined by a qualified biologist. Construction activities within the disturbance buffer are allowed if the following criteria are met to prevent owls from abandoning important overwintering sites:*	

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		• *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).* • *The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.* • *If there is any change in owl roosting and foraging behavior as a result of construction activities, these activities will cease within the buffer.* • *If the owls are gone for at least one week, the project proponent may request approval from the Conservancy, CDFW, and USFWS for a qualified biologist to excavate and collapse usable burrows to prevent owls from reoccupying the site if the burrow cannot be avoided by construction activities. The qualified biologist will install one-way doors for a 48-hour period prior to collapsing any potentially occupied burrows. After all usable burrows are excavated, the buffer will be removed and construction may continue.* *Monitoring must continue as described above for the nonbreeding season as long as the burrow remains active.*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		A qualified biologist will monitor the site, consistent with the requirements described above, to ensure that buffers are enforced and owls are not disturbed. Passive relocation (i.e., exclusion) of owls has been used in the past in the Plan Area to remove and exclude owls from active burrows during the nonbreeding season (Trulio 1995). Exclusion and burrow closure will not be conducted during the breeding season for any occupied burrow. If the Conservancy determines that passive relocation is necessary, the project proponent will develop a burrowing owl exclusion plan in consultation with CDFW biologists. The methods will be designed as described in the species monitoring guidelines (California Department of Fish and Game 2012) and consistent with the most up-to-date checklist of passive relocation techniques12. This may include the installation of one-way doors in burrow entrances by a qualified biologist during the nonbreeding season. These doors will be in place for 48 hours and monitored twice daily to ensure that the owls have left the burrow, after which time the biologist will collapse the burrow to prevent reoccupation. Burrows will be excavated using hand tools. During excavation, an escape route will be maintained at all times. This may include inserting an artificial structure, such as piping, into the burrow to prevent collapsing until the entire burrow can be excavated and it can be determined that no owls are trapped inside the burrow. The Conservancy may allow other methods of passive or	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		active relocation, based on best available science, if approved by the wildlife agencies. Artificial burrows will be constructed prior to exclusion and will be created less than 300 feet from the existing burrows on lands that are protected as part of the reserve system.	
4.4-5 Have a substantial adverse effect, either directly or through habitat modifications, on Swainson's hawk or white-tailed kite.	S	*4.4-5* *Yolo HCP/NCCP AMM16: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify any nesting habitat present within 1,320 feet of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.* *If a construction project cannot avoid potential nest trees (as determined by the qualified biologist) by 1,320 feet, the project proponent will retain a qualified biologist to conduct preconstruction surveys for active nests consistent, with guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000), between March 15 and August 30, within 15 days prior to the beginning of the construction activity. The results of the survey will be submitted to the Conservancy and CDFW. If active nests are found during preconstruction surveys, a 1,320-foot initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. Up to 20 Swainson's hawk nest trees (documented nesting within the last 5 years) may be removed during the permit term, but they must be removed when not occupied by Swainson's hawks. *For covered activities that involve pruning or removal of a potential Swainson's hawk or white-tailed kite nest tree, the project proponent will conduct preconstruction surveys that are consistent with the guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000). If active nests are found during preconstruction surveys, no tree pruning or removal of the nest tree will occur during the period between March 1 and August 30 within 1,320 feet of an active nest, unless a qualified biologist determines that the young have fledged and the nest is no longer active.*	

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4.4-6 Have a substantial adverse effect, either directly or through habitat modifications, on other nesting birds and raptors protected under the MBTA and CFGC, including northern harrier.	S	*4.4-6 The removal of any buildings, trees, or shrubs shall occur from September 1 through December 15, outside of the avian nesting season. If removal of buildings, trees, or shrubs occurs, or construction begins between February 1 and August 31 (nesting season for passerine or non-passerine land birds) or between December 15 and August 31 (nesting season for raptors), a nesting bird survey shall be performed by a qualified ornithologist throughout the project site and all accessible areas within a 500-foot radius of proposed construction areas, at most, 14 days prior to the removal or disturbance of a potential nesting structure, tree, or shrub, or the initiation of other construction activities. During this survey, a qualified biologist shall inspect all potential nesting habitat (trees, shrubs, structures, grasslands, etc.) for nests in and immediately adjacent to the impact areas. If a break in construction activity of more than 14 days occurs, then subsequent surveys shall be conducted. A report of the survey findings shall be provided to the City of Winters Community Development Department and CDFG within 30 days of the completed survey and is valid for one construction season. If nests are not found, further mitigation is not required.* *If active raptor nests are found, construction activities shall not take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot non-disturbance buffer shall be established. The non-disturbance buffers may be reduced if a*	LS

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		smaller, sufficiently protective buffer is approved by the City after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, the nest occupants' habituation to existing or ongoing activity, and nest concealment (i.e., whether visual or acoustic barriers occur between the proposed activity and the nest). A qualified biologist may visit the nest, as needed, to determine when the young have fledged the nest and are independent of the site or the nest can be left undisturbed until the end of the nesting season. *If the nest buffer is reduced but construction activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest in a way that would be considered a result of construction activities, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the agitated behavior. The revised non-disturbance buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the City.* *Construction activities may only resume within the non-disturbance buffer after a follow-up survey by the biologist has been conducted and a report has been prepared indicating that the nest (or nests) are not active any longer, and that new nests have not been identified.*	

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Summary of Impacts and Mitigation Measures

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4.4-7 Have a substantial adverse effect, either directly or through habitat modifications, on special-status roosting bats.	S	*4.4-7 Prior to the commencement of construction activities, a qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees within the proposed impact footprint and within the project vicinity. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. The results of the assessment shall be submitted for review and approval to the City of Winters Community Development Department.* • *If potential roosting habitat is identified (cavities in trees) within the areas proposed for impact, the biologist shall survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys shall be conducted using methods that are considered acceptable by bat experts after consultation with CDFW. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof.* • *If roosting bats are identified within any of the trees planned for removal, or if presence is assumed, the trees shall be removed outside*	LS

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		of pup season, only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree. • *Additionally, all other tree removal shall be conducted from January through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.* • *If roosting bats are identified within any trees planned for removal, a bat exclusion plan shall be prepared by a qualified bat biologist describing the methods to be used to humanely exclude bats prior to disturbance. The plan shall be submitted for review and approval to the City of Winters Community Development Department after consultation with CDFW and shall be implemented prior to the start of construction.* • *The requirements for the bat expert and City to consult with CDFW prior to approving survey methods and a bat exclusion plan shall be satisfied either where CDFW*	

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	Impact	Level of Significance Prior to Mitigation		Mitigation Measures	Level of Significance After Mitigation
				responds to requests for consultation within 30 days of the requests or where the bat expert and City have attempted to consult with CDFW but CDFW has failed to respond to the request within 30 days of the placement of the request.	
4.4-8	**Have a substantial adverse effect, either directly or through habitat modifications, on American badger.**	S	*4.4-8*	*Within 48 hours prior to the commencement of construction, a preconstruction survey for American badger shall be conducted by a qualified biologist. A report summarizing the results of the preconstruction survey shall be submitted for review and approval to the City of Winters Community Development Department. If American badger or burrows with American badger are found on-site during the preconstruction survey, consultation with CDFW shall occur prior to the initiation of any construction activities, to determine an appropriate burrow excavation and/or relocation method. If American badger is not found, further mitigation shall not be required.*	LS
4.4-9	**Have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.**	LS	*None required.*		N/A
4.4-10	**Have a substantial adverse effect on State or federally protected wetlands (including,**	S	*4.4-10*	*Prior to the commencement of ground-disturbing activities, the project applicant shall apply to the Central Valley Regional Water Quality Control Board*	LS

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	but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.			*(RWQCB) for a Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements for Projects Involving Discharge of Dredged and/or Fill Material to Waters of the State. Written verification of the Section 401 permit shall be submitted to the City of Winters Community Development Department. The project applicant shall be responsible for conducting all project activities in accordance with the permit provisions outlined therein.*	
4.4-11	**Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.**	LS	*None required.*		N/A
4.4-12	**Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**	S	*4.4-12*	*Pursuant to Winters Municipal Code Section 12.08.010, prior to the removal of any trees as part of the proposed project, the project applicant shall submit an application for review and approval to the City of Winters Tree Commission. Authority to remove trees shall be at the discretion of the City Manager, pursuant to the action taken by the Tree Commission. The application shall state the number and type of trees proposed to be removed or replaced, and other pertinent information as the City Manager finds reasonably necessary to make a fair determination of whether or not authority for tree removal shall be issued.*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.4-13 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.	S	*4.4-13(a)* *Yolo HCP/NCCP AMM3: Where natural communities and covered species habitat are present, workers will confine land clearing to the minimum area necessary to facilitate construction activities. Workers will restrict movement of heavy equipment to and from the project site to established roadways to minimize natural community and covered species habitat disturbance. The project proponent will clearly identify boundaries of work areas using temporary fencing or equivalent and will identify areas designated as environmentally sensitive. All construction vehicles, other equipment, and personnel will avoid these designated areas.* *4.4-13(b)* *Yolo HCP/NCCP AMM4: To prevent injury and mortality of giant garter snake, western pond turtle, and California tiger salamander [It should be noted that California tiger salamander would not be potentially impacted by the proposed project], workers will cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during non-working hours. The construction contractor will inspect open trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.* *4.4-13(c)* *Yolo HCP/NCCP AMM5: Workers will minimize the spread of dust from work sites to natural communities or covered species habitats on adjacent lands.*	LS

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		4.4-13(d) *Yolo HCP/NCCP AMM6: All construction personnel will participate in a worker environmental training program approved/authorized by the Conservancy and administered by a qualified biologist. The training will provide education regarding sensitive natural communities and covered species and their habitats, the need to avoid adverse effects, state and federal protection, and the legal implications of violating the FESA and NCCPA Permits. A pre-recorded video presentation by a qualified biologist shown to construction personnel may fulfill the training requirement.* *4.4-13(e)* *Yolo HCP/NCCP AMM7: Workers will direct all lights for nighttime lighting of project construction sites into the project construction area and minimize the lighting of natural habitat areas adjacent to the project construction area.* *4.4-13(f)* *Yolo HCP/NCCP AMM8: Project proponents should locate construction staging and other temporary work areas for covered activities in areas that will ultimately be a part of the permanent project development footprint. If construction staging and other temporary work areas must be located outside of permanent project footprints, they will be located either in areas that do not support habitat for covered species or are easily restored to prior or improved ecological functions (e.g., grassland and agricultural land). Construction staging and other temporary work areas*	

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		located outside of project footprints will be sited in areas that avoid adverse effects on the following: • *Serpentine, valley oak woodland, alkali prairie, vernal pool complex, valley foothill riparian, and fresh emergent wetland land cover types.* • *Occupied western burrowing owl burrows.* • *Nest sites for covered bird species and all raptors, including noncovered raptors, during the breeding season.* *Project proponents will follow specific AMMs for sensitive natural communities (Section 4.3.3, Sensitive Natural Communities) and covered species (Section 4.3.4, Covered Species) in temporary staging and work areas. For establishment of temporary work areas outside of the project footprint, project proponents will conduct surveys to determine if any of the biological resources listed above are present.* *Within one year following removal of land cover, project proponents will restore temporary work and staging areas to a condition equal to or greater than the covered species habitat function of the affected habitat. Restoration of vegetation in temporary work and staging areas will use clean, native seed mixes approved by the Conservancy that are free of noxious plant species seeds.*	

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		4.4-13(g) To ensure avoidance and minimization of impacts to the species covered by the Yolo HCP/NCCP, which could be impacted by the project, the project applicant shall obtain coverage under the Yolo HCP/NCCP for on-site, and as may be determined necessary by Yolo Habitat Conservancy, for off-site infrastructure work, for each phase of development. In addition to payment of any applicable HCP/NCCP fees, the applicant shall implement Yolo HCP/NCCP AMMs identified in Mitigation Measures 4.4-2(a) and 4.4-2(b), 4.4-3, 4.4-4, and 4.4-5.	
4.4-14 Cumulative loss of habitat for special-status species.	LCC	*None required.*	N/A
4.5 Cultural and Tribal Cultural Resources			
4.5-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5.	LS	*None required.*	N/A
4.5-2 Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries.	S	*4.5-2 The following requirements shall be included via notation on all project grading plans prior to the issuance of grading permits, to the satisfaction of the City of Winters Community Development Department.* *In the event subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for precontact*	LS

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		and historic archaeologist, shall be retained by the applicant to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find: • *If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and agency notifications are not required.* • *If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City and applicable landowner. The project applicant shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Work shall not resume within the no-work radius until the applicant, through consultation as appropriate and concurrence with the City, determines that the site either: 1) is not a historical resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to the City's satisfaction.*	

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		• *If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Yolo County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 shall be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner shall notify the NAHC, which then shall designate a Native American Most Likely Descendant (MLD) for the proposed project (Section 5097.98 of the PRC). The designated MLD shall have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC shall mediate (Section 5097.94 of the PRC). If an agreement is not reached, the landowner shall rebury the remains where they shall not be further disturbed (Section 5097.98 of the PRC). The burial shall also include either recording the site with the NAHC or the appropriate information center,*	

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		using an open space or conservation zoning designation or easement, or recording a reinternment document with Yolo County (AB 2641). Work shall not resume within the no-work radius until the City, through consultation as appropriate, determines that the treatment measures have been completed to their satisfaction.	
4.5-3 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or a resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant	S	*4.5-3* *Prior to ground disturbance activities, the project proponent shall prepare a Tribal Cultural Resources Monitoring Plan for City approval that includes the following components:* • *Awareness Training -- The scope, format, and timing of delivery of a contractor awareness training program to inform equipment operators and their supervisors of the procedures required by the Monitoring Plan, which includes, at a minimum, annual training for all personnel involved in project implementation. The program shall include relevant information regarding sensitive tribal cultural laws and regulations. The program shall describe appropriate avoidance and minimization measure (as described in the executed Monitoring Plan) for resources that have the potential to be located on the project site and shall outline specific actions and contacts should any potential archeological resources or artifacts be*	LS

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pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.		*encountered. The program shall also underscore the requirement for confidentiality and culturally-appropriate treatment of any finds of significance to Native American peoples and for behavior consistent with Native American Tribal values. A copy of the contractor awareness training program materials and written verification of completion of the training program shall be submitted to the City of Winters Community Development Department.* • *Compliance with Applicable Laws – The Monitoring Plan shall describe applicable laws and regulations relevant to potential cultural resource finds, including specific procedures to ensure compliance during implementation.* • *Reporting By Phase –The applicant shall file a written report to the City within 30 days of completion of monitoring for each monitoring phase. The report shall document compliance with the terms of the Monitoring Agreement and shall report on the nature and disposition of any cultural resource discoveries. Applicable requirements for confidentiality shall be observed in these reports.* • *Treatment and Disposition of Cultural Items and Remains – Detailed unanticipated*	

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		discovery procedures for cultural resources, unique archaeological resources, tribal cultural resources, or human remains that includes consultation with the City to ensure that any discoveries are treated in accordance with applicable state law before work can resume at the discovery location. • *Other Procedures and Requirements – Timing and procedures for other relevant actions necessary to implement the Monitoring Plan.*	
4.5-4 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	S	*4.5-4 Prior to the issuance of grading permits, the following language shall be included via notation on the grading plans, subject to review and approval by the City of Winters Community Development Department:* *"Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The City of Winters Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred."*	LS

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	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.5-5	**Cause a cumulative loss of cultural resources.**	LS	*None required.*	N/A
4.6 Land Use and Planning/Population and Housing				
4.6-1	**Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.**	LS	*None required.*	N/A
4.6-2	**Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).**	LS	*None required.*	N/A
4.6-3	**Cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.**	LS	*None required.*	N/A
4.6-4	**Cumulative unplanned population growth.**	LS	*None required.*	N/A

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4.7 Noise				
4.7-1	**Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**	LS	*None required.*	N/A
4.7-2	**Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**	LS	*None required.*	N/A
4.7-3	**Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.**	LS	*None required.*	N/A
4.7-4	**Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout of the City of Winters.**	LCC	*None required.*	N/A

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4.8 Public Services and Utilities			
4.8-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.	LS	*None required.*	N/A
4.8-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.	LS	*None required.*	N/A
4.8-3 Result in substantial adverse physical impacts associated with the provision of new or	LS	*None required.*	N/A

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	physically altered school services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or performance objectives.			
4.8-4	**Result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.**	LS	*None required.*	N/A
4.8-5	**Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in**	LS	*None required.*	N/A

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	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
	order to maintain acceptable service ratios, response times, or performance objectives for maintenance of public facilities, including roads, or for other government services.			
4.8-6	**Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.**	LS	*None required.*	N/A
4.8-7	**Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.**	LS	*None required.*	N/A
4.8-8	**Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the**	LS	*None required.*	N/A

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	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
	provider's existing commitments.			
4.8-9	**Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste.**	LS	*None required.*	N/A
4.8-10	**Cumulative impacts to public services.**	LS	*None required.*	N/A
4.8-11	**Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout in the City of Winters.**	LCC	*None required.*	N/A
	4.9 Transportation			
4.9-1	**Conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian, bicycle, and transit facilities.**	S	*4.9-1(a)* *Prior to issuance of grading permits, the project applicant shall obtain an encroachment permit from the California Department of Transportation (Caltrans) for all proposed improvements within the State Route (SR) 128 right-of-way (ROW). As part of obtaining an encroachment permit, the project applicant shall apply through the Caltrans Encroachment Permit System and submit a copy of the final improvement plans as*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		part of the application package, showing the location and specifications of the proposed improvements to SR 128. The proposed improvements shown on the improvement plans, which shall also be subject to review and approval by the City Engineer as meeting the applicable standards of the City of Winters Design Guidelines, shall include, but not be limited to, the following: *1) At the SR 128 (East Grant Avenue)/East Main Street intersection, installation of a traffic signal, marked crosswalks, bike lane conflict markings, and bicycle intersection crossing markings. The traffic signal shall provide temporal separation between bicyclists, pedestrians, and conflicting vehicular movements (e.g., through the provision of pedestrian crossing phases). This improvement shall be completed during Phase 1 of the proposed project, prior to construction of the 160th dwelling unit. This improvement is included as a citywide improvement project in the City's Traffic Impact Fee program and shall be reimbursed through the requisite impact fee to the City's fee program. Additionally, should either of the two properties bordering the future traffic signal develop in advance of the proposed project, the properties shall reimburse the*	

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		proposed project for their fair share of the signal. *2) At the western project site boundary, contribution of a fair share towards the construction of a roundabout with marked crosswalks and physical separation between bicyclists and vehicles. The roundabout shall reduce approach speeds for vehicular traffic and enable crossing pedestrians to negotiate conflicting vehicular traffic, one direction at a time (i.e., through the provision of pedestrian refuge areas/splitter islands). This improvement is included as a citywide improvement project in the City's Traffic Impact Fee program. Accordingly, payment of the requisite impact fee to the City's fee program shall fulfill the project's mitigation obligation for this improvement.* *3) Construction of new bicycle facilities on SR 128 according to standards set forth in the Caltrans Highway Design Manual. The required Class I shared-use path on the northern edge of SR 128, along the project site's southern boundary, shall include a minimum paved width of eight feet, plus two-foot shoulders of unobstructed all-weather surface on each side of the path. The provision of the proposed 12-foot paved path shall also satisfy the applicable Caltrans design requirements. The design of the*	

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		bicycle facilities shall be submitted to Caltrans and the City of Winters for review and approval. *4) Improvements of equal effectiveness as determined by the City Engineer.* *Written verification of the encroachment permit shall be submitted to the City of Winters Community Development Department. The project applicant shall conduct all project activities in accordance with the permit provisions outlined therein.*	
4.9-2 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	S	*4.9-2* *Prior to issuance of the first building permit in the first phase of development, the applicant shall, to the extent feasible, implement transportation demand management (TDM) strategies to reduce the number of vehicle trips that would be generated by both the residential and commercial components of the project. The TDM program shall be submitted to the City Public Works Department for review and approval. Potential TDM strategies range from site design characteristics to on-going parking management and commute travel programs. The California Air Pollution Control Officers Association (CAPCOA) Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity identifies numerous TDM strategies and quantifies their potential vehicle trip reduction effects. Potential strategies that could be applicable to the project include:* *1. Increase residential density;*	SU

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		2. *Increase job density;* 3. *Provide transit-oriented development;* 4. *Implement commute trip reduction program;* 5. *Implement commute trip reduction marketing;* 6. *Provide ridesharing program;* 7. *Provide end-of-trip bicycle facilities;* 8. *Limit residential parking supply;* 9. *Unbundle residential parking costs from property costs;* 10. *Improve street connectivity;* 11. *Construct or improve bike boulevard;* 12. *Implement carshare program; and/or* 13. *Implement community-based travel planning.*	
4.9-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LS	*None required.*	N/A
4.9-4 Result in inadequate emergency access.	LS	*None required.*	N/A
Initial Study Impacts Requiring Mitigation			
VII-a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	S	*VII-1. Prior to issuance of grading permits, a design-level Geotechnical Engineering Investigation shall be prepared in order to evaluate the proposed project's potential effects related to geologic hazards, including, but not limited to, expansive soils, liquefaction, and subsidence/settlement. The City Engineer shall verify*	LS

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iii. Seismic-related ground failure, including liquefaction? **iv. Landslides** **VII-c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?** **VII-d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?**			*that all geotechnical recommendations specified in the design-level Geotechnical Engineering Investigation prepared for the project are properly incorporated in the project design.*	
IX-b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	S	*IX-1.*	*Prior to initiation of ground-disturbing activities associated, the project applicant shall complete testing of on-site soils and groundwater. The testing shall be tested for organochlorine pesticides (OCPs) in accordance with U.S. Environmental Protection Agency (USEPA) Method 8081A. Soil determined to be non-hazardous through analytical testing shall be transported and disposed of at a permitted Class II non-hazardous facility with established Waste Discharge Requirements (WDRs) with the Central*	LS

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		Valley Regional Water Quality Control Board (RWQCB). Groundwater determined to be non-hazardous through analytical testing shall be transported and disposed of at a permitted non-hazardous treatment facility. Non-hazardous waste shall be transported to disposal under a non-hazardous waste manifest. *In the event that soil and groundwater are determined to be hazardous by exceeding the USEPA Regional Screening Level for residential exposure scenarios, the soil and/or groundwater shall be transported and disposed of at a Class I facility permitted by the California Department of Toxic Substances Control. Hazardous waste shall be transported to disposal by a licensed hazardous waste hauler under a uniform hazardous waste manifest.* *The results of soil and/or groundwater sampling and analysis, as well as verification of proper remediation and disposal, shall be submitted to the City's Community Development Department for review and approval.* *IX-2. Prior to Improvement Plan approval, the project applicant shall contract a licensed geologist with the State of California to complete a site reconnaissance for any on-site wells. In the event on-site wells are not identified, no further mitigation shall be required. If an on-site well is identified, the project applicant shall hire*	

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		a licensed well contractor to obtain a well abandonment permit from the Yolo County Environmental Health Division (YCEHD) for all on-site wells and properly abandon the on-site wells, pursuant to Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III). Verification of abandonment shall be submitted for review and approval to the City's Community Development Department.	
X- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: **iv. Impede or redirect flood flows?** **X- d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**	S	*X-1.* *Prior to occupancy, the project applicant shall ensure that the conditions specified in the Federal Emergency Management Agency (FEMA) Conditional Letter of Map Revision have been met and a Final Letter of Map Revision issued by FEMA. Evidence thereof shall be submitted to the City's Community Development Department for review and approval.*	LS

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3. Project Description

3. PROJECT DESCRIPTION

3.1 INTRODUCTION

CEQA Guidelines Section 15125 requires an EIR to include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of Preparation (NOP) is published, from both a local and regional perspective. Knowledge of the existing environmental setting is critical to the assessment of environmental impacts. Pursuant to CEQA Guidelines Section 15125, the description of the environmental setting shall not be longer than necessary to understand the potential significant effects of the project and its alternatives.

The Project Description chapter of this EIR provides a comprehensive description of the Farmstead Subdivision Project (proposed project), in accordance with the CEQA Guidelines. It should be noted that this chapter provides an overall general description of the existing environmental conditions; however, more detailed discussions of the existing setting as they relate to each given potential impact area are included in each technical chapter of this EIR.

Pursuant to CEQA Guidelines Section 15124, an EIR is required to include a project description that includes the following information: project location, project objectives, a general description of the project's technical, economic and environmental characteristics, and a statement briefly describing the intended uses of the EIR, including a list of agencies expected to use the EIR, a list of permits and other approvals required to implement the project, and a list of related environmental review required by federal, State or local laws, regulations or policies. According to CEQA Guidelines Section 15124, the project description is not required to supply extensive detail beyond that needed for evaluation and review of the environmental impacts.

3.2 PROJECT LOCATION

The approximately 61.9-acre project site is located to the northwest of the intersection of State Route (SR) 128 and Timber Crest Road in the City of Winters, California (see Figure 3-1 and Figure 3-2). The project site is identified by Yolo County Assessor's Parcel Number (APN) 038-050-018. It should be noted that within the City limits, the portion of SR 128 adjacent to the project site is also identified as East Grant Avenue.

3.3 PROJECT SETTING AND SURROUNDING LAND USES

The following sections describe the existing setting of the project site and the surrounding land uses in the project vicinity. Please note that detailed discussions of the existing setting in compliance with CEQA Guidelines Section 15125, specific to each environmental resource area, are included in each corresponding technical chapter of this EIR.

Site Characteristics

The project site is located within the eastern portion of the City of Winters and is generally flat, with a slight slope and an elevation of approximately 125 feet above mean sea level (amsl). The property has been farmed for several decades, with the ground periodically tilled for row crops, hay, or other types of dry farming. Currently, the site is used for annual row crops. Vegetation within the project site consists primarily of ruderal non-native species. In addition, the perimeter of the site contains numerous trees and shrubs.

Figure 3-1
Regional Vicinity Map



Figure 3-2
Project Site Boundaries



The majority of the project site is designated by the Federal Emergency Management Agency (FEMA) as Zone AO, defined by FEMA as the 100-year floodplain. As a result, the majority of the site is subject to flooding. Runoff generally flows from the parcels north of the site and travels south through the site toward an approximately 0.079-acre roadside ditch located parallel to SR 128. Runoff from the on-site ditch is conveyed through a culvert located under SR 128 near the southeast corner of the site to an approximately 60-foot-wide detention basin, owned by Pacific Gas & Electric Company (PG&E) and located south of SR 128. The PG&E detention basin was constructed in 2016 and collects and temporarily retains stormwater from roadside ditches along SR 128, the PG&E Gas Safety Facility southeast of the project site, and land in the project vicinity that is planned for future development. The PG&E detention basin extends south from SR 128 to a ditch along Interstate 505 (I-505). From the latter ditch, runoff ultimately discharges to Putah Creek.

The Winters General Plan designates the site as Open Space (OS) in the site's northeast portion, as Low Density Residential (LR) in the northwest portion, and as Neighborhood Commercial (NC) in the site's southern portion. Corresponding with the aforementioned land use designations, the site is zoned as Open Space (O-S), Single Family Residential 7,000-Square-Foot Average Minimum (R-1), and Neighborhood Commercial (C-1), respectively.

Surrounding Land Uses

The project site is bound by an unpaved road and agricultural land currently used for orchards to the north, the unpaved Timber Crest Road to the east, and SR 128 to the south. Undeveloped land zoned for Highway Service Commercial (C-H) uses occurs to the east, across Timber Crest Road. In addition, undeveloped land zoned for C-1 uses occurs to the south, across SR 128. Surrounding existing uses include a light industrial use (Pearce Heating & Air Conditioning, Inc.) to the northeast, across Timber Crest Road; two single-family residences and associated outbuildings to the east, across Timber Crest Road; a Chevron fueling station and convenience store, a Fairfield Inn & Suites, and various fast-food retailers further to the east; a single-family residential neighborhood located further to the south, across SR 128; and various commercial uses, a single-family residential neighborhood, and the Walnut Lane 10 parcel to the west. The Walnut Lane 10 parcel has been previously approved by the City for a 54-lot subdivision development and already includes paved neighborhood roads and utility infrastructure.

3.4 PROJECT OBJECTIVES

The following project objectives have been developed by the project applicant:

1. Create a land use plan that contains a mix of land uses and residential product types that satisfy City policies, regulations and expectations as discussed in the Winters General Plan;
2. Provide for a sufficient number of residential units to attract merchant builders and allow a mix of housing choices at varying densities to respond to a range of market segments, including opportunities for rental units and affordable housing consistent with the General Plan and Housing Element;
3. Add new affordable housing units which will assist the City of Winters in achieving the City's Regional Housing Needs Allocation (RHNA) requirements;
4. Include commercially designated land that utilizes the project's frontage and adjacency to Grant Avenue to support the needs of local residents and capture the benefits of drive-by traffic;

5. Designate park and open space areas to provide opportunities for outdoor recreation and exercise to encourage healthy lifestyles for future residents and adjacent neighborhoods;
6. Provide a comprehensively planned neighborhood in an infill location that is effectively served by existing and proposed infrastructure in a manner that allows for efficient, orderly, and logical development and discourages leapfrog or piecemeal development and sprawl;
7. Incorporate drainage detention and water quality features that mitigate for the impacts of the project and also contribute toward the more comprehensive solution identified in the City of Winters Storm Drainage Master Plan Northeast Area;
8. Create a neighborhood that can be logically and efficiently phased to allow for the orderly buildout of the project and installation of improvements to the infrastructure systems;
9. Provide a roadway system that allows connectivity between existing and proposed neighborhoods and parks and for two points of access to allow safe ingress and egress, and service by infrastructure systems and emergency services;
10. Provide a circulation system that interconnects land uses and promotes pedestrian, bicycle, and transit options that will encourage non-vehicular trips, thereby reducing vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions;
11. Create a development that has an overall positive economic impact on the City of Winters and has a neutral or positive fiscal impact on City finances and existing rate payers; and
12. Provide a quality development on East Grant Road that contributes to the beautification of this gateway entry into the City of Winters from the I-505 interchange.

3.5 PROJECT COMPONENTS

The proposed project would consist of various residential uses, including a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex; three commercial lots totaling 3.3 acres; 6.9 total acres of park uses; a new drainage channel parallel to the eastern site boundary; internal roadway improvements; associated utility improvements; new landscaping; and frontage improvements. The project would require City approval of a General Plan Amendment (GPA), Rezone, Tentative Subdivision Map, Planned Development (PD), and an Affordable Housing Plan. The project could potentially also include a Development Agreement. The proposed project components, along with the required entitlements, are described further below.

General Plan Amendment and Rezone

The proposed project includes a GPA to re-configure the boundaries of the project site's existing land use designations, as well as add new designations to the site, in order to accommodate the proposed uses. Currently, the project site consists of 33.7 acres designated as LR, 13.5 acres designated as OS, and 14.7 acres designated as NC. Through City approval of the proposed GPA, the site would additionally include the following designations: Medium Density Residential (MR), Medium High Density Residential (MHR), and High Density Residential (HR). The existing and proposed land use designations, as well as the associated acreages, are shown in Figure 3-3 and summarized in Table 3-1.

Similarly, the proposed project includes a Rezone to re-configure the boundaries of the project site's existing zoning designations, as well as add new zoning districts to the site, in order to accommodate the proposed uses. Currently, the project site consists of 33.7 acres zoned R-1, 13.5 acres zoned OS, and 14.7 acres zoned C-1. Through City approval of the proposed Rezone, the site would additionally include the following zoning districts: Single Family Residential 6,000-Square-Foot Average Minimum (R-2) with a PD overlay, Multifamily Residential (R-3), and High Density Multifamily Residential (R-4).

Figure 3-3
General Plan Amendment

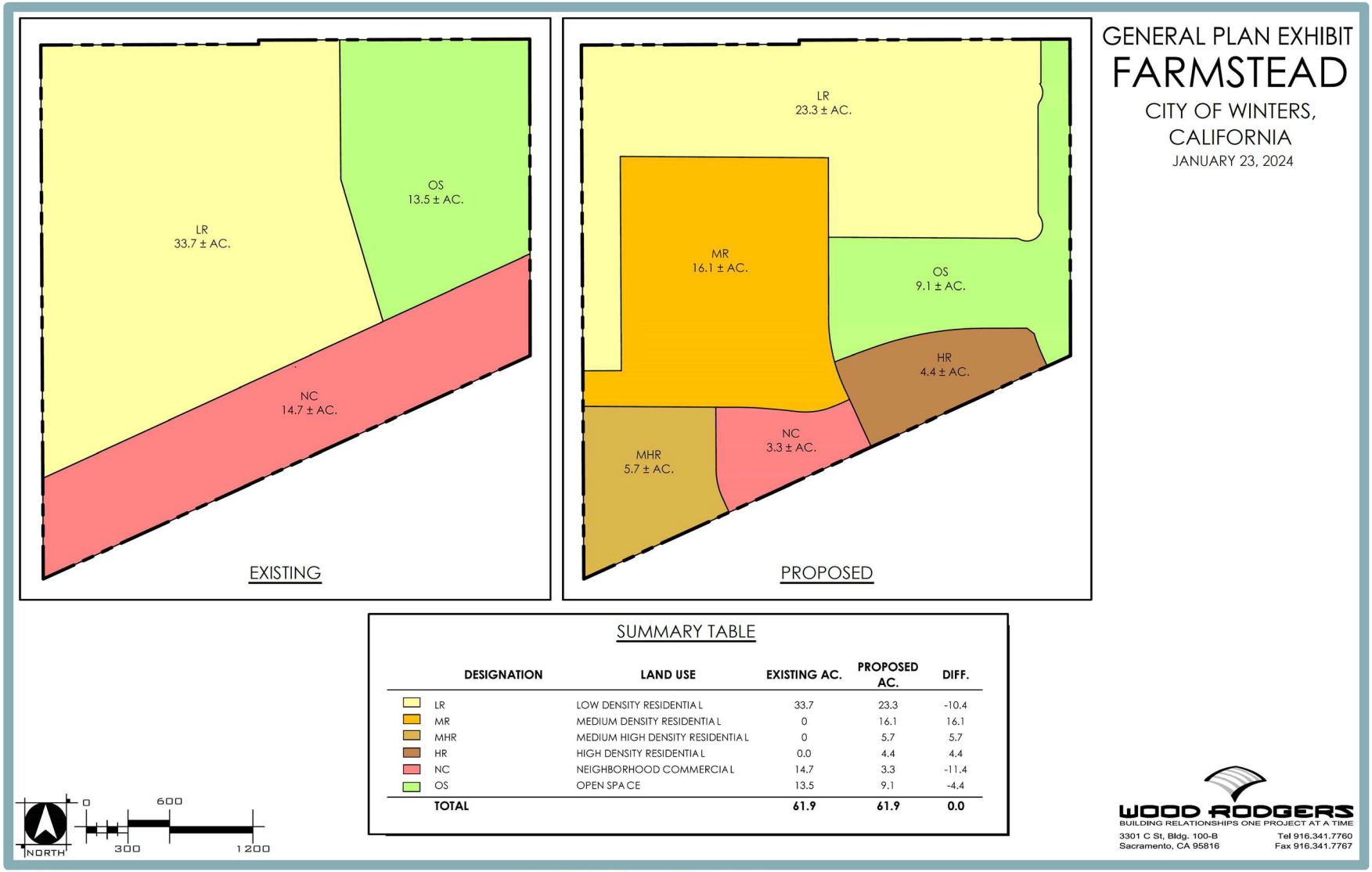


Table 3-1
Farmstead Subdivision General Plan Amendment

Land Use Designation	Existing Acreage[1]	Proposed Acreage[1]
Low Density Residential (LR)	33.7	23.3
Medium Density Residential (MR)	0	16.1
Medium High Density Residential (MHR)	0	5.7
High Density Residential (HR)	0	4.4
Neighborhood Commercial (NC)	14.7	3.3
Open Space (OS)	13.5	9.1
Total	**61.9**	**61.9**

[1] Acreages are presented in gross acres.

The existing and proposed zoning districts, as well as the associated acreages, are shown in Figure 3-4 and summarized in Table 3-2.

Table 3-2
Farmstead Subdivision Rezone

Zoning	Existing Acreage[1]	Proposed Acreage[1]
Single-Family Residential (7,000-sf min.) (R-1)	33.7	23.3
Single-Family Residential (6,000-sf min.) (R-2)	0	16.1
Multifamily Residential (R-3)	0	5.7
High Density Multifamily Residential (R-4)	0	4.4
Neighborhood Commercial (C-1)	14.7	3.3
Open Space (O-S)	13.5	9.1
Total	**61.9**	**61.9**

[1] Acreages are presented in gross acres.

Tentative Subdivision Map and Planned Development

The proposed project would include a Tentative Subdivision Map, in accordance with the applicable provisions set forth by Winters Municipal Code Chapter 16.01, to establish the individual single-family residential lots, as well as the lots proposed for townhome, multi-family residential, commercial, and park uses (see Figure 3-5). As part of development of the proposed R-2 residences, the project would require City approval of a PD. The aforementioned project components are discussed further below.

Single-Family Residences

The proposed project would include a total of 188 single-family residential units within 39.4 acres of the project site, with the residences grouped within three areas, identified on the Tentative Subdivision Map as Unit 1, Unit 2, and Unit 3. As shown in Figure 3-6, Unit 1 and Unit 2 lots would be constructed within the first phase of project construction, whereas Unit 3 lots would be constructed during the second phase of construction.

Of the total single-family residences proposed as part of the project, 90 units would be Unit 1 lots located within the proposed R-2 zoning district. The Unit 1 lots would have a minimum lot size of 5,000 square feet (sf) and would be located to the west of the proposed East Main Street, encompassing 16.1 total acres. With respect to density, Unit 1 would be developed at a density of 5.6 dwelling units per acre (du/ac).

Figure 3-4
Rezone

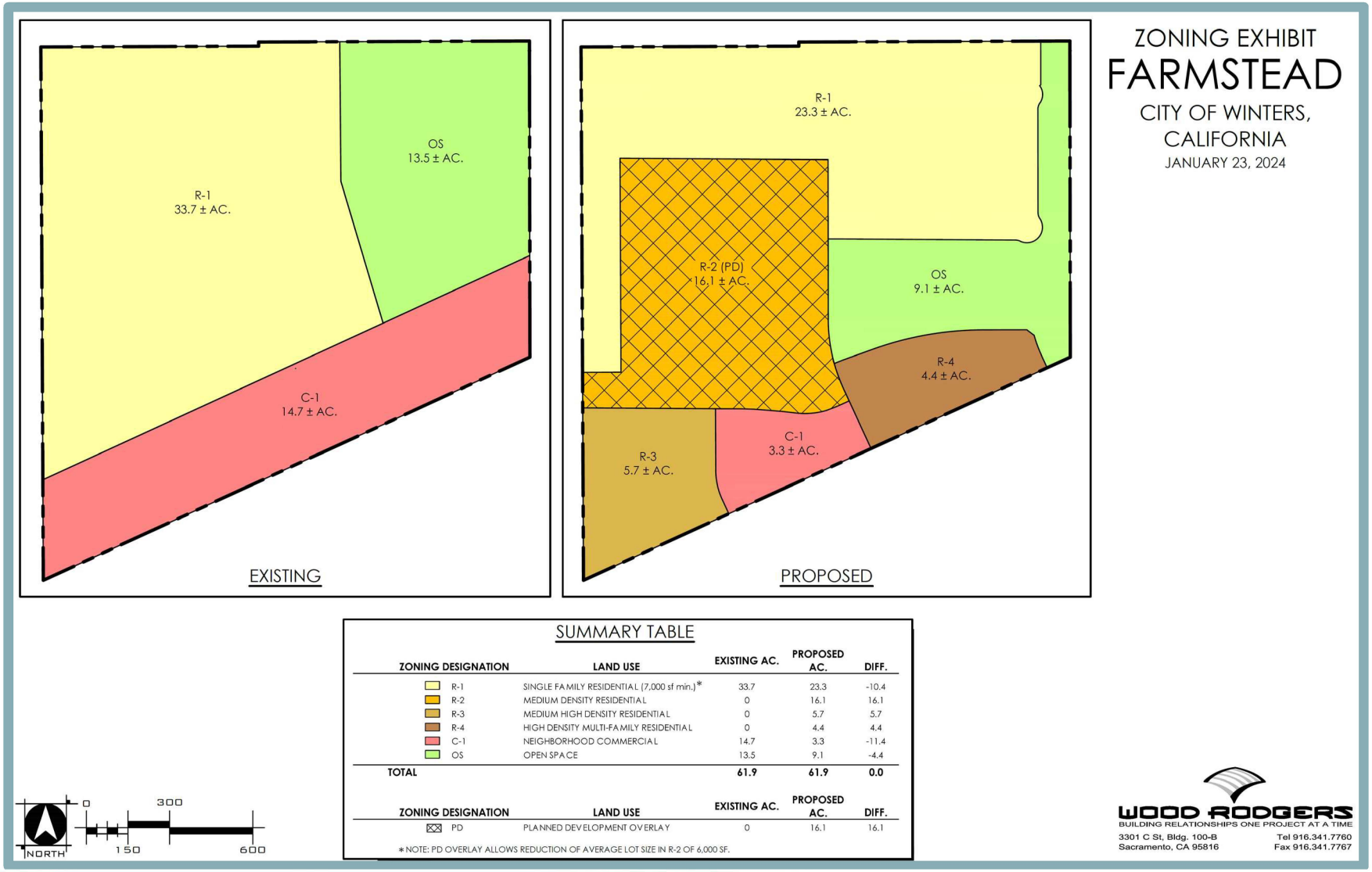


Figure 3-5
Small Lot Tentative Subdivision Map

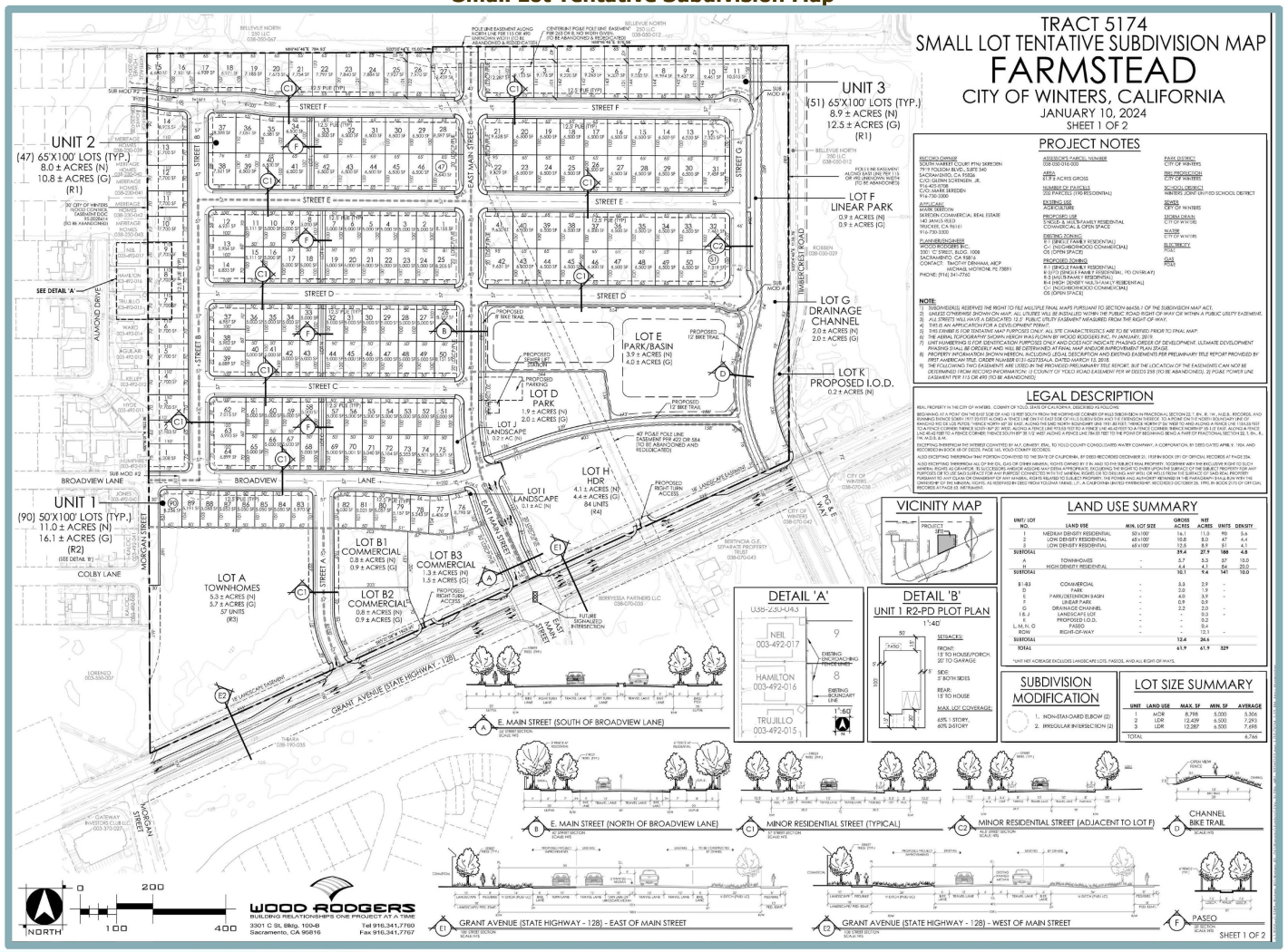
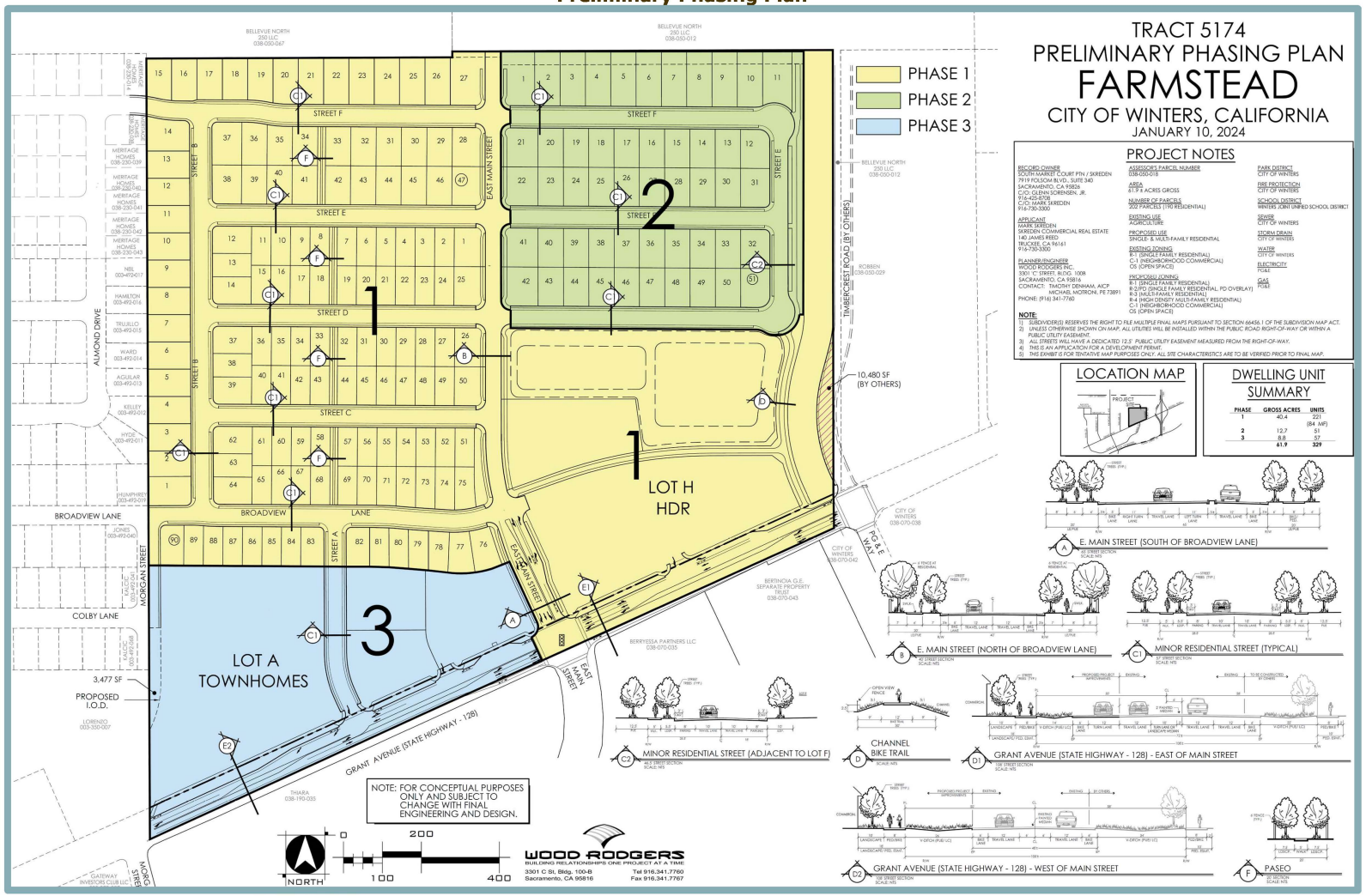


Figure 3-6
Preliminary Phasing Plan



Winters Municipal Code Section 17.56.010 establishes an average minimum lot area of 6,000 sf for R-2 residences, as well as minimum side yard setback distances of five feet and 10 feet for single-story and multi-story residences, respectively, in the R-2 zone and maximum site coverages of 50 and 45 percent for R-2 single-story and multi-story residences, respectively. As such, the project would include a PD for the project site's proposed R-2 zone. The PD would allow for an average minimum lot area of 5,300 sf, side yard setback distances of five feet for each side yard, and maximum site coverage of 60 percent for single-story residences and 55 percent for multi-story residences.

Unit 2 and Unit 3 would feature 47 and 51 lots, respectively, which would be constructed within the project site's proposed R-1 zone. The Unit 2 and Unit 3 lots would have a minimum lot size of 6,500 sf and would be located within the northern and western portions of the site, encompassing a total of 23.3 acres. The Unit 2 and Unit 3 would be developed in accordance with the development standards established for the R-1 zoning district in Winters Municipal Code Section 17.56.010 at respective densities of 4.4 and 4.1 du/ac.

Additionally, the residential lots abutting the project site's northern property line would be pad graded to have a higher ground surface than the adjacent property to the north of the site. Unit 3 Lots 1 through 11 would include a backyard slope, which would descend toward a v-ditch that would convey runoff to the proposed drainage channel in the eastern portion of the project site. Unti 2 Lots 15 through 27 would feature a three-foot-tall retaining wall similar to the retaining wall installed as part of the Walnut Lane 10 Project to the west of the site.

Townhomes

The proposed project would include up to 57 townhome units within the proposed 5.7-acre R-3 zoning district, which would be located in the southwest corner of the project site and constructed during the third phase of project construction. The townhomes would be developed in accordance with the development standards established for R-3 uses in Winters Municipal Code Section 17.56.010. Assuming buildout of the R-3 zone with the maximum number of units, the townhomes would be constructed at a density of 10 du/ac.

High-Density Residences

The proposed project would include dedication to the City of a 4.4-acre lot located in the southeastern portion of the project site, which is proposed to be zoned R-4 and would consist of up to 84 high-density residential units. The units would comply with the development standards established for R-4 uses in Winters Municipal Code Sections 17.56.010 and 17.60.060 and constructed at a density of 20 du/ac.

Commercial Uses

The proposed commercial lots would be located to the west of the proposed East Main Street, immediately to the north of SR 128. Specific proposals to develop the Lots B1 through B3 have not been submitted as part of the proposed project; however, this EIR anticipates that the commercial lots would be developed with approximately 37,000 sf of commercial buildings. Any future commercial development within the lots would be required to comply with the permitted and conditional uses, as well as the development standards, established for the C-1 zoning district within Sections 17.44.070 and 17.56.010 of the Winters Municipal Code. The Winters General Plan establishes a maximum floor area ratio (FAR) of 0.40 for the NC land use designation.

Parks and Drainage Channel

The proposed project would dedicate three lots, totaling 6.9 acres, to be designed and constructed by the City of Winters with park uses (Lots D, E, and F, as shown in Figure 3-5). The City would be responsible for the installation of park facilities, irrigation systems, walkways, hardscaping, trails, lighting, and landscaping within the park lots. Lots D and E would contain an eight-foot-wide bike trail, and Lot F would contain a 12-foot-wide bike trail.

In addition, a two-acre drainage channel would be constructed parallel to the eastern site boundary, within Lot G, to provide improved flood protection for the project site and properties within the project vicinity. The drainage channel would be designed in accordance with hydrology and hydraulics analyses contained in the City of Winters Storm Drainage Master Plan Northeast Area.[1]

Access, Parking, and Circulation

Primary site access would be provided from SR 128 by way of two new entrances, East Main Street and Street A, which would provide access to new internal roads. At the site entrance from SR 128, East Main Street would consist of a 65-foot-wide right-of-way (ROW), featuring two 12-foot-wide travel lanes to accommodate northbound and southbound traffic. In addition, East Main Street would include right-turn and left-turn lanes for southbound traffic, each constructed at a width of 11 feet. An attached five-foot-wide bicycle lane would be constructed along each side of the East Main Street. The street would also feature sidewalks along each side. With respect to Street A, at the site entrance from SR 128, the street would consist of a 57-foot-wide ROW, comprised of a 10-foot-wide travel lane to accommodate motorists traveling in each direction, as well as an eight-foot-wide strip along each side of the street to accommodate on-street parking. In addition, a five-foot-wide sidewalk would be constructed along each side of Street A.

From East Main Street and Street A, access would be provided to the proposed internal circulation system, which would be comprised of streets designed similarly to Street A that would provide access to the various uses within the site (Streets B through F and Broadview Lane). It should be noted that Broadview Lane, which would be constructed in an east-to-west direction, would connect to the existing off-site portion of Broadview Lane, which is currently stubbed at the western site boundary. Similarly, Street F in the northern portion of the site would connect to the existing off-site Overhouse Drive in the Walnut Lane 10 parcel.

Covered parking would be provided for each single-family residence within garages and driveways. In addition, the minor residential streets would include eight-foot-wide lanes on each side of the street for on-street parking. Surface parking lots would be provided as part of development of the townhome, high-density residential, and commercial uses. The proposed project is anticipated to include a maximum of two surface parking spaces for each townhome/high-density residential unit, which would result in a maximum total of 282 surface parking stalls. With respect to commercial parking areas, the project is anticipated to include 288 surface parking stalls. Overall, the project would include a total of 570 surface parking stalls.

The proposed project would also include an on-site network of bicycle trails. A 12-foot-wide bicycle trail would be constructed parallel to the drainage channel in the eastern portion of the project site, which would connect to the SR 128/Timber Crest Road intersection. Additionally, a 12-foot-wide and an eight-foot-wide bicycle trail would be constructed adjacent to the southern

[1] City of Winters. *Storm Drainage Master Plan Northeast Area*. March 2020.

and western boundaries, respectively, of the Lots D and E parks. Finally, East Main Street would include five-foot-wide bicycle lanes to accommodate northbound and southbound bicyclists.

Frontage Improvements

The proposed project would include various frontage improvements along SR 128. East of the proposed East Main Street, the project would include construction of a new 12-foot-wide right-turn lane, an attached six-foot-wide bicycle lane, a new 14-foot-wide ditch, and a detached eight-foot-wide Class I multi-use pathway and landscaping. West of East Main Street, the proposed project would construct a 26-foot-wide ditch, an eight-foot-wide Class I multi-use pathway, and landscaping.

In addition, the proposed project would install new box culverts under SR 128 to convey post-construction stormwater flows to the existing detention basin south of the project site.

Utilities

Water service would be provided to the proposed structures by the City of Winters through new connections to the existing 12-inch water line in Overhouse Drive west of the project site, the existing eight-inch water line in Broadview Lane west of the site, and the existing 14-inch water line in SR 128 (see Figure 3-7). Newly installed water lines within the proposed interior streets would connect to the aforementioned existing water lines in the project vicinity and would consist of eight- or 12-inch diameters. All new water infrastructure installed as part of the proposed project would be designed in accordance with the applicable standards established by the City of Winters Standard Specifications, Division I, Section 8 (Water Systems Design).

Similarly, the proposed project would be provided sanitary sewer service by the City of Winters through new connections to the existing infrastructure in the project vicinity (see Figure 3-7). All structures proposed as part of the project would convey wastewater flows through new sewer laterals to new eight-inch sewer lines installed within the internal street system. From the new sewer lines, flows would be conveyed to a new sewer lift station located within the Lot D park. From the new lift station, wastewater would be pumped through a new six-inch force main to an existing eight-inch sewer main located within the SR 128/Timber Crest Road intersection, which conveys flows to the southeast to an existing lift station located within the PG&E Gas Safety Facility. From the PG&E lift station, wastewater is ultimately pumped to the City's Wastewater Treatment Facility (WWTF), located at the northwest edge of the City limits. All new sewer infrastructure installed as part of the proposed project would be designed in accordance with the applicable standards established by the City of Winters Standard Specifications, Division I, Section 7 (Sanitary Sewer Design).

With respect to storm drainage, the project would also include new on-site stormwater facilities to detain and treat stormwater runoff from the site's new impervious surfaces, as well as runoff from adjacent properties (see Figure 3-8). Runoff from the site would be directed to inlets installed primarily within the internal street system, which would convey flows through new storm drain lines measuring 12 or 54 inches in diameter to the 3.9-acre Lot E park. The easterly half of the Lot E park would be designed to be approximately nine feet below pad grade and sized to contain a 10-year storm event at depths ranging from two to five feet.

Figure 3-7
Preliminary Sewer and Water Plan

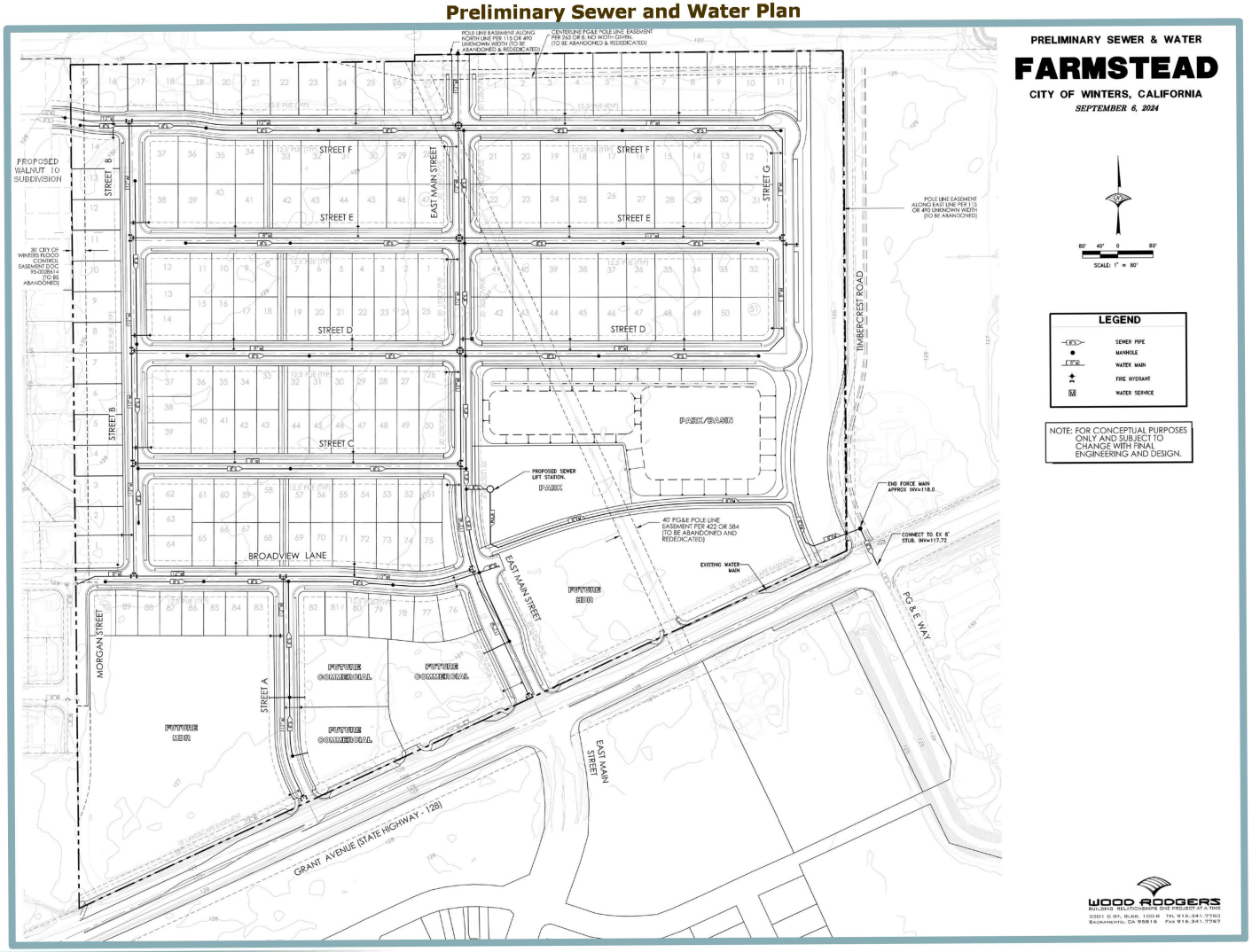
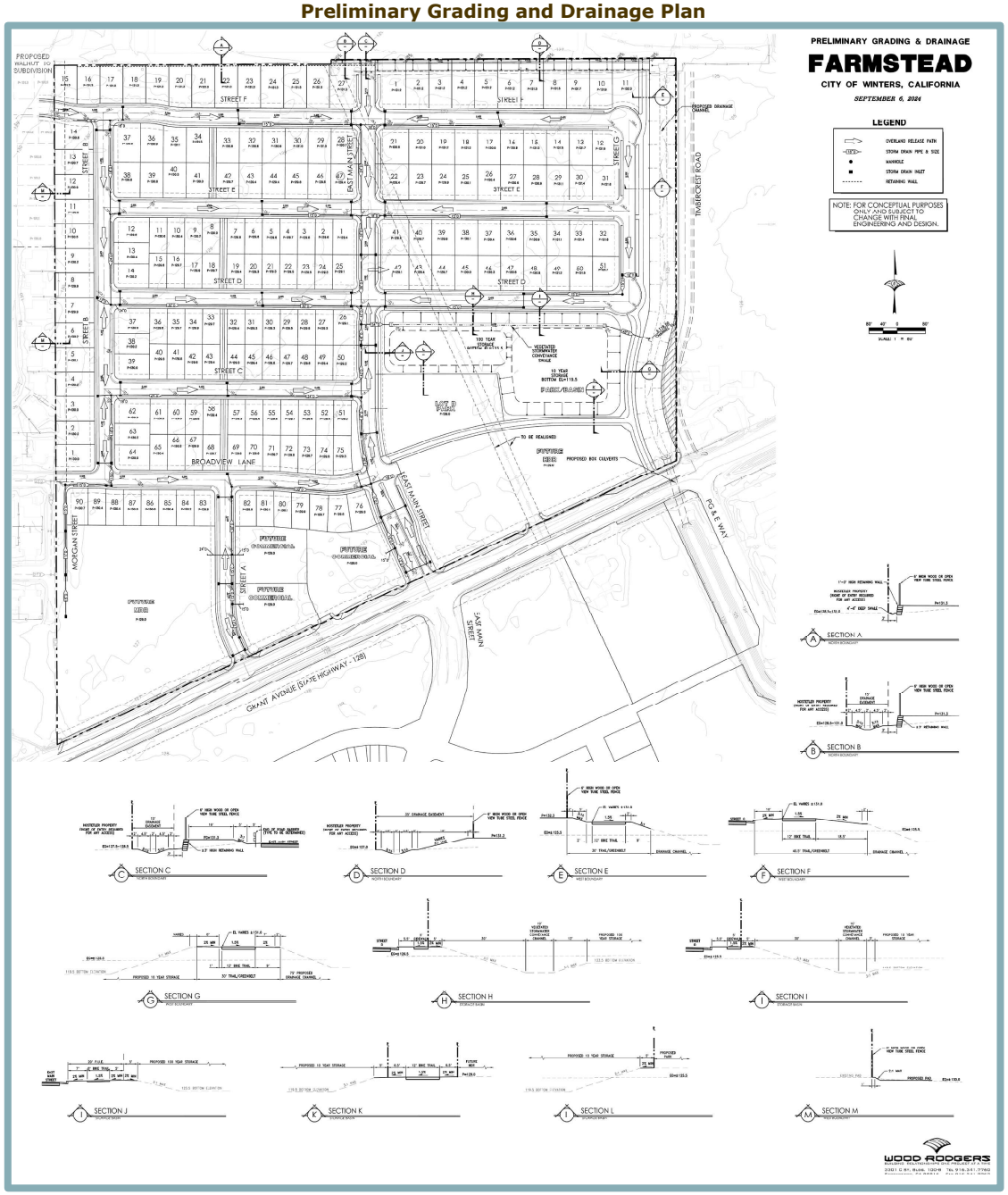


Figure 3-8
Preliminary Grading and Drainage Plan



The westerly half of the park would be approximately four to seven feet below pad grade to further detain runoff during storm events. Following a 100-year storm event, the Lot E park is anticipated to require one to two days to drain. A low-flow swale would be constructed to convey peak flows from the park eastward to the Lot G drainage channel. From the drainage channel, stormwater flows would be conveyed southward through proposed box culverts under SR 128 to the detention basin adjacent to the PG&E Gas Safety Facility, which ultimately discharges to Putah Creek.

Lastly, the proposed project would be provided electricity and natural gas by PG&E and internet service by Xfinity. Existing electricity and telecommunications infrastructure is located along SR 128. In accordance with Winters Municipal Code Section 16.20.020, existing aboveground infrastructure would be undergrounded, and new natural gas, electricity, and telecommunications infrastructure would be extended into the project site within the internal street system.

Affordable Housing Plan

The 4.4-acre R-4 lot proposed for high-density residences would be dedicated to the City in order to meet the City's affordable housing requirements. As established in Winters Municipal Code Section 17.200.030, notwithstanding the exceptions provided therein, all development projects consisting of five or more residential units within the City must include inclusionary housing units equal to 15 percent of the total number of residential units in the development project, excluding density bonus units. The 15 percent inclusionary housing requirement must consist of six percent very low-income units and nine percent low-income or moderate-income units, in proportion to the unmet needs for each identified group in the 2021-2029 Housing Element Update, which was adopted by the City of Winters on March 15, 2022.[2] In addition, of the total townhome units constructed within the R-3 lot, 10 units would be restricted to moderate-income households.

The proposed project's Affordable Housing Plan would be negotiated with and determined by the City's Affordable Housing Coordinator and reviewed by the Affordable Housing Steering Committee, prior to being taken to the Winters Planning Commission and City Council for approval with the project's other requested entitlements.

Development Agreement

The potential Development Agreement would be subject to negotiation with and approval by the City. The Development Agreement, if included, would allow the City and the applicant to enter into an agreement to assure the City that the proposed project would be completed in compliance with the plans submitted by the applicant, and assure the applicant of vested rights to develop the project.

3.6 REQUIRED PUBLIC APPROVALS

The City of Winters has discretionary authority and is the lead agency for the proposed project. In addition to certification of this EIR and the associated Mitigation Monitoring and Reporting Program, the proposed project requires approval of the following entitlements by the City of Winters:

- General Plan Amendment to amend the project site to decrease the LR land use designation from 33.7 acres to 23.3 acres, add a 16.1-acre MR designation, add a 5.7-acre MHR designation, add a 4.4-acre HR designation, reduce the NC designation from

[2] City of Winters. *6th Cycle (2021-2029) Housing Element*. Adopted March 15, 2022.

14.7 acres to 3.3 acres, and reduce the OS land use designation from 13.5 acres to 9.1 acres;
- Rezone to amend the project site to decrease the R-1 zone from 33.7 acres to 23.3 acres, add a 16.1-acre R-2 zone with a PD overlay, add a 5.7-acre R-3 zone, add a 4.4-acre R-4 zone, reduce the C-1 zone from 14.7 acres to 3.3 acres, and reduce the O-S zone from 13.5 acres to 9.1 acres;
- Planned Development;
- Tentative Subdivision Map;
- Affordable Housing Plan; and
- Development Agreement.

Review or Approvals by Other Agencies

A number of other agencies will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of project implementation. These agencies could include, but may not be limited to, the following:

- Conditional Letter of Map Revision (FEMA);
- Encroachment Permit – California Department of Transportation;
- Section 401 Water Quality Certification (Regional Water Quality Control Board [RWQCB] – Central Valley Region);
- Section 1600 Lake and Streambed Alteration Agreement (California Department of Fish and Wildlife – Region 3);
- National Pollutant Discharge Elimination System (NPDES) Construction General Permit (RWQCB – Central Valley Region); and
- NPDES Phase II MS4 General Permit (RWQCB – Central Valley Region).

4. Existing Environmental Setting, Impacts, and Mitigation

4.0 Introduction to the Analysis

4.0 INTRODUCTION TO THE ANALYSIS

4.0.1 INTRODUCTION

The technical chapters of this EIR include the analysis of the potential impacts of the proposed project on a range of environmental issue areas. Chapters 4.1 through 4.9 include the focus of the analysis, references and other data sources for the analysis, the environmental setting related to each specific issue area, project-specific impacts and mitigation measures, and the cumulative impacts of the project for each issue area. The format of each of the technical chapters is described at the end of this chapter.

4.0.2 DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the environment (Public Resources Code [PRC] Section 21068). The CEQA Guidelines require that the determination of significance be based on scientific and factual data. The specific criteria for determining the significance of a particular impact are identified within in each technical chapter, and are consistent with significance criteria set forth in the CEQA Guidelines or as based on the professional judgment of the Lead Agency with support of substantial evidence.

4.0.3 ENVIRONMENTAL ISSUES ADDRESSED IN THE INITIAL STUDY

The Initial Study prepared for the proposed project (Appendix A) includes a detailed environmental checklist addressing a range of technical environmental issues. For each technical environmental issue, the Initial Study identifies the level of impact for the proposed project. The Initial Study identifies the environmental effects as “no impact,” “less than significant,” “less than significant with mitigation incorporated,” and “potentially significant.” Impacts identified in the Initial Study as less than significant with mitigation incorporated, less than significant, or no impact are presented below. All remaining issues identified in the Initial Study as potentially significant are discussed in the subsequent technical chapters of this EIR.

- *Agriculture and Forest Resources (b-d):* Although the project site currently serves as an undeveloped agricultural field used for annual row crops, the project site is not currently zoned for agricultural use and is not currently under a Williamson Act Contract. Thus, a *less-than-significant* impact relating to conflicts with existing zoning for agricultural use or a Williamson Act contract. In addition, the project is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). Therefore, the proposed project would have *no impact* with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

- *Air Quality (d):* Given the nature of the proposed land uses, as well as the required compliance with State and Yolo-Solano Air Quality Management District (YSAQMD) rules and regulations, the construction and operation of the proposed project would not result in emissions (such as those leading to odors and dust) that would affect a substantial number of people, and a *less-than-significant* impact would result. Although dismissed

from further review, it should be noted that Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, of this Draft EIR, includes additional information and analysis.

- *Geology and Soils (a-e):* Although the project site is not underlain by any known faults, based on the historical seismic activity throughout the State, the project site is considered subject to ground shaking risk and related effects. However, the California Building Standards Code provides minimum standards to ensure that the proposed structures would be designed using sound engineering practices and appropriate engineering standards for the seismic area in which the project site is located. As a result, a *less-than-significant* impact would occur related to substantial adverse effects involving rupture of a known earthquake fault or strong seismic ground shaking. In addition, as discussed in further detail under Hydrology and Water Quality, the proposed project would result in a *less-than-significant* impact related to soil erosion or the loss of topsoil.

  Based on the identified shrink-swell potential of the on-site soils, potentially significant impacts could occur related to liquefaction, subsidence/settlement, or expansive soil. However, the mitigation measure prescribed in the Initial Study requires the preparation of a Geotechnical Engineering Investigation and adherence to the recommendations therein. Compliance with the mitigation measures along with adherence to all other applicable federal, State, and local regulations would reduce impacts related to liquefaction, subsidence/settlement, and expansive soils, as defined in Table 18-1B of the Uniform Building Code (1994) to *less than significant with mitigation incorporated*.

  The proposed project would not involve installation of septic tanks and, therefore, would have *no impact* related to having soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems.

- *Hazards and Hazardous Materials (All Sections): O*perations of the proposed residences, commercial uses, and parkland would not include any activities that would involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Construction activities associated with implementation of the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. However, the project contractor would be required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Thus, implementation of the proposed project would result in a *less-than-significant* impact to the public or the environment through the routine transport, use, or disposal of hazardous materials.

  Schools do not currently exist, nor are expected to be constructed, within one-quarter mile of the project site. As a result, *less-than-significant* impacts would occur related to emitting hazardous emissions or handling hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Furthermore, the project site would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and the project site is not located within a High or Very High Fire Hazard Severity Zone; thus, *less-than-significant* impacts would occur related to impairing implementation of or physically interfering with an adopted emergency response plan/emergency evacuation plan, or exposing people or structures to the risk of loss, injury or death involving wildland fires.

Due to the project site's former use as an agriculture field, the project site could potentially contain organochlorine pesticides (OCPs), exposure to which can lead to adverse health effects. However, with implementation of the mitigation measures prescribed in the Initial Study, which require soil and groundwater testing, removal of any potentially hazardous materials on-site, and inspection of wells by a licensed geologist, any potentially significant impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment would be reduced to *less than significant with mitigation incorporated*.

In response to the Notice of Preparation (NOP), the City received a comment letter from the California Department of Conservation stating that their records indicate one known oil or gas well, identified as "Shell-Bishop-Tex.Plsnt.Crk. Unit 1" is located within the project site boundaries. However, based on a Phase I Environmental Site Assessment prepared for the project site in 2005, Shell-Bishop-Tex.Plsnt.Crk. Unit 1 is located approximately 90 feet west of the project site.[1] Therefore, the proposed project would not result in any impacts to related to the disturbance of existing oil or gas wells.

The project is not included on a list of hazardous materials sites and is not located within an airport land use planning zone or within two miles of an airport. Thus, *no impact* would occur related to being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, or resulting in a safety hazard or excessive noise for people residing or working in the project area for projects located within an airport land use plan.

- *Hydrology and Water Quality (All Sections):* During project construction, after grading, and prior to overlaying the ground surface with impervious surfaces, the potential exists for wind and water erosion to discharge sediment into stormwater runoff, which could adversely affect water quality. However, the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), adherence to Best Management Practices (BMPs), and acquisition of a General Construction Permit would ensure that any impact related to the violation of water quality standards or waste discharge requirements during construction or operation would remain at a *less-than-significant* level.

  During operations, new impervious surfaces on the project site could contribute incrementally to soil erosion and the degradation of downstream water quality during storm events. However, implementation of all applicable Low Impact Development (LID) measures, BMPs, and other City of Winters Public Works Department standards would reduce pollutants in urban runoff to the maximum extent practicable, resulting in a *less-than-significant* impact.

  It should be noted that the aforementioned requirements during construction and operation of the project would prevent any water quality impacts to Putah Creek.

  Regarding depletion of groundwater resources, the Initial Study found that the current groundwater supply is sufficient to meet the demands at General Plan buildout without risk of overdraft. Thus, the proposed project would result in a *less-than-significant* impact with

[1] Wallace-Kuhl & Associates, Inc. *Environmental Site Assessment – Winters 61.65-Acre Property* [pg. 15]. September 26, 2005.

respect to substantially depleting groundwater supplies or interfering substantially with groundwater recharge and would not conflict with an applicable groundwater management plan or water quality control plan.

The proposed project would not pose a risk related to the release of pollutants due to project inundation due to tsunami or seiche given that the project site is located approximately 60 miles from the coast and approximately seven miles from Lake Berryessa. However, the project site is located within Federal Emergency Management Agency (FEMA) Zone AO, which is identified as a Special Flood Hazard Area. Zone AO is defined as areas having flood depths of one to three feet, with an average depth of two feet. A Conditional Letter of Map Revision (CLOMR) Application was submitted in January 2021 to revise and update the FEMA map for the project area. Development of the proposed project would require the control of flooding from the north and east, and the proposed project would involve earthwork to raise the foundations above the proposed on-site flood levels. Such improvements would alter the hydrology of the area and effectively lift the project site out of the floodplain. Thus, impacts related to flooding would be *less than significant with mitigation incorporated*.

- *Land Use and Planning (a):* The proposed project would not introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community or isolate an existing land use. Because the proposed project would include residential development in a location with existing single-family residential developments to the west and south, to which the proposed project would provide roadway connections, the proposed project would not physically divide an established community, and a *less-than-significant* impact would occur.

- *Mineral Resources (All Sections):* The proposed project would not have any effect on availability of important mineral resources because the City's General Plan does not designate or identify any known mineral resources within the City of Winters, and the project site is not located on or adjacent to any mineral lands identified within Yolo County by the Yolo County 2030 General Plan. Because the project would not result in the loss of availability of a known mineral resource or locally important recovery site, a *less-than-significant* impact would occur.

- *Noise (c):* The nearest airport to the project site is Yolo County Airport, which is located approximately six miles to the northeast of the site. As such, the proposed project would not be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and the project would not expose people residing or working in the project area to excessive noise levels. Thus, *no impact* would occur.

- *Population and Housing (b):* The project site is currently vacant and devoid of any habitable structures. As such, the proposed project would not displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere. Therefore, *no impact* would occur.

- *Public Services (d):* Because the proposed project would not result in substantial adverse impacts associated with the provision of new or physically altered park facilities, the

construction of which could cause environmental impacts, a *less-than-significant* impact would occur.

- *Recreation (All Sections):* While the proposed project would induce population growth, the 6.9 acres of park uses associated with the proposed project would exceed the City's parkland requirement. Thus, the proposed project would not require the expansion of any existing recreation facilities in the project region. Therefore, a *less-than-significant* impact would occur related to recreation.

- *Wildfire (All Sections):* According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within a High or Very High Fire Hazard Severity Zone. Thus, a *less-than-significant* impact would result from the proposed project related to substantial risk or hazards related to wildfires.

4.0.4 ENVIRONMENTAL ISSUES ADDRESSED IN THIS EIR

The EIR provides the analysis necessary to address the environmental impacts of the proposed project. The following environmental issues are addressed in separate technical chapters of this EIR:

- Aesthetics;
- Agricultural Resources;
- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural and Tribal Cultural Resources;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services and Utilities; and
- Transportation.

Chapter 5 of the EIR presents a discussion of any growth-inducing impacts, significant irreversible environmental changes, significant and unavoidable impacts identified in Chapters 4.1 through 4.9, as applicable, as well as additional information on the scope of the cumulative impact analysis.

4.0.5 TECHNICAL CHAPTER FORMAT

Each technical chapter addressing a specific environmental issue begins with an **introduction** describing the purpose of the chapter. The introduction is followed by a description of the project's **existing environmental setting** pertaining to that particular environmental issue. The setting description is followed by the **regulatory context** and the **impacts and mitigation measures** discussion. The discussion contains the **standards of significance**, followed by the **method of analysis**. The standards of significance section includes references to the specific Initial Study checklist questions consistent with Appendix G of the CEQA Guidelines. The **impacts and mitigation measures** discussion includes impact statements prefaced by a number in bold-faced type. An explanation of each impact and an analysis of the impact's significance follow each impact statement, followed by all mitigation measures pertinent to each individual impact. The degree of relief provided by identified mitigation measures is also evaluated. An example of the format is shown below:

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the proposed project in comparison with the standards of significance.

4.X-1 Statement of Project-Specific Impact

Discussion of impact for the proposed project in paragraph format.

Statement of ***level of significance*** of impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR: less than significant, significant, or significant and unavoidable.

Mitigation Measure(s)

If an impact is determined to be significant, mitigation will be included in order to reduce the specific impact to the maximum extent feasible. Impacts that cannot be reduced to a less-than-significant level with implementation of all feasible mitigation would be considered to remain significant and unavoidable.

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.X-1(a) *Required mitigation measure(s) presented in italics and numbered in consecutive order.*

4.X-1(b) *Required additional mitigation measure, if necessary.*

Cumulative Impacts and Mitigation Measures

The following discussion of cumulative impacts is based on implementation of the proposed project in combination with cumulative development within the applicable area or region.

4.X-2 Statement of Cumulative Impact

Discussion of cumulative impacts for the proposed project in paragraph format.

As discussed in detail in Chapter 5, Statutorily Required Sections, of the EIR, the cumulative setting for the proposed project is generally considered to be development anticipated to occur upon buildout of the City of Winters General Plan as well as buildout of approved or reasonably foreseeable projects within the project region.

Statement of ***level of significance*** of cumulative impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR for cumulative impacts: less than significant, less than cumulatively considerable, cumulatively considerable, or significant and unavoidable.

Mitigation Measure(s)

If an impact is determined to be cumulatively considerable, mitigation will be included in order to reduce the specific impact to the maximum extent feasible.

Impacts that cannot be reduced to a less than cumulatively considerable level with the implementation of all feasible mitigation would be considered to remain significant and unavoidable.

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.X-2(a) *Required mitigation measure(s) presented in italics and listed in consecutive order.*

4.X-2(b) *Required additional mitigation measure, if necessary.*

4.1 Aesthetics

4.1 AESTHETICS

4.1.1 INTRODUCTION

The Aesthetics chapter of this Draft EIR describes existing aesthetic resources in the area of the proposed project and the broader region, and evaluates the potential aesthetic impacts of the project. The CEQA describes the concept of aesthetic resources in terms of scenic vistas, scenic resources (such as trees, rock outcroppings, and historic buildings within a State scenic highway), and the existing visual quality of the project area. In addition, pursuant to CEQA Guidelines, this chapter describes potential impacts related to light and glare. The following analysis is based on information drawn from the City of Winters General Plan,[1] the City of Winters General Plan EIR,[2] and the City of Winters Design Guidelines,[3] as well as an Initial Study (IS) prepared for a previously approved project which included the entirety of the project site.[4]

It should be noted that, pursuant to the court ruling in *Preserve Poway v. City of Poway* (2016) 245 Cal. App.4th 560 [199 Cal.Rptr. 3d 600], community character is separate and apart from aesthetic impacts, and thus, is not a CEQA issue. Rather, the analysis of aesthetics should be limited to tangible, physical evidence that a project is visually inconsistent with the surrounding community (rather than a psychological "feel"). Therefore, where applicable, the analysis presented within this chapter focuses on potential physical changes to visual composition of the project site and surrounding area, rather than overall community character.

4.1.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides an overview of the existing conditions of visual resources in the vicinity of the project site, which is located within the eastern portion of the City of Winters.

Visual Character of the Region

The City of Winters is located in the southwestern corner of Yolo County, immediately north of the Solano County line and just east of the Vaca Mountain Range. The City is bordered by Dry Creek and Putah Creek to the south and southwest. The topography of the City and area surrounding the City is generally flat with slightly rolling hills, punctuated by Putah and Dry Creeks which flow out of the Vaca Mountains. With the exception of views from highway overpasses that provide brief panoramic views, the entire Cityscape and surrounding landscape are viewed from a ground-level perspective. The terrain is characterized by agricultural uses, primarily orchards and field crops.

State Scenic Highways

According to the California Department of Transportation (Caltrans) map of designated and eligible scenic routes under the California Scenic Highway Program, State Route (SR) 128,

1 City of Winters. *The City of Winters General Plan Policy Document.* Adopted May 19, 1992.
2 City of Winters. *City of Winters General Plan Final Environmental Impact Report.* Certified May 1992.
3 City of Winters. *Winters Design Guidelines.* November 1999.
4 City of Winters. *I-505/Grant Avenue Planning Area Land Use Modifications Project Mitigated Negative Declaration.* April 2012.

located adjacent to the southern boundary of the project site, is eligible for official designation as a State scenic highway.[5] The closest designated State scenic highway is a portion of Interstate 5 (I-5) approximately 25.45 miles east of the project site.

Visual Character of the Project Site and Surrounding Area

The following information provides an overview of the existing conditions of the project site and surrounding area in relation to visual character.

Project Site

Currently, vegetation within the project site consists primarily of ruderal non-native species and is absent of structures or other indications of prior development. The property has been used for farming for many decades, with the ground periodically tilled for row crops, hay, or other dry farming purposes. The site currently serves as an undeveloped agricultural field used for annual row crops. The topography of the site is generally flat, with a slight slope. With an approximate elevation of 29 feet above mean sea level (amsl) at the northwest edge of the property and 23 feet amsl near the southeast portion of the site, the site generally slopes to SR 128. An approximately 0.079-acre roadside ditch is located within the project site parallel to SR 128. A culvert located under SR 128, near the southeast corner of the project site, connects flows from the roadside ditch to a linear detention basin owned by Pacific Gas & Electric (PG&E) Co. The PG&E linear detention basin south of the project site is an approximately 60-foot-wide aquatic feature with a flat bottom and 3:1 sloped sides, and extends south from SR 128 to a ditch along Interstate 505 (I-505).

Surrounding Areas

Land to the north of the project is primarily unincorporated agricultural land currently used as an orchard. Land to the east of the project site, across Timber Crest Road consists of undeveloped grassland zoned for Highway Service Commercial (C-H) uses and a single-family residence with associated outbuildings approximately 100 feet from the project site; a fueling station and fast-food restaurant are located further to the east. Land to the south of the project stie, across from SR 128, includes undeveloped grassland zoned for neighborhood commercial (C-1) and central business (C-2) uses and a single-family residence with associated outbuildings; a single-family residential neighborhood is located further to the south. The nearest residence to the west of the site is located approximately 50 feet from the site boundary.

A fueling station, grocery store, dental office, single-family residential neighborhood, and undeveloped land are located to the west of the project site. It should be noted that the latter undeveloped parcel to the west of the project site is known as the Walnut Lane 10 parcel, which has been previously approved by the City for a 54-lot subdivision development (see Figure 3-2 in the Project Description chapter).

Frontage Improvements

Frontage improvement areas associated with the proposed project would include extension of East Main Street northward into the project site. A new signal would be installed at the SR 128/East Main Street intersection, and future right-turn access points would be provided along SR 128 and the project frontage for westbound vehicles to enter the project site. Lastly, Morgan

[5] Department of Transportation. *California State Scenic Highway System Map.* Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed June 2024.

Street would be expanded in width from Broadview Lane to the road's existing stub. Generally, the improvement areas do not possess any unique visual characteristics.

Viewer Types

Viewer types in the vicinity that have views of the project site include the following:

- *Motorists* along Walnut Lane, the unpaved Timber Crest Road, SR 128, and Morgan Street have existing views of the project site while driving past the site.
- *Pedestrians and bicyclists* along SR 128 and Morgan Street have existing views of the site. Timber Crest Road and Walnut Lane do not include paved shoulders or sidewalks on either side of the roadways adjacent to the project site; thus, bicycle and pedestrian traffic along Timber Crest Road and Walnut Lane in the project vicinity is limited.
- *Residents* of the existing single-family residential subdivisions to the west of the site and the single-family residence to the east of the site have unobscured views of the project site from the ground-level and second stories. To the south of the site, the existing single-family subdivisions have views of the project site from across East Baker Road. However, should the vacant land located north of East Baker Street and south of SR 128 be developed, views of the proposed project from the single-family subdivision may be obscured.

Public Versus Private Views

Travelers along nearby roadways, as well as the nearby residences east, west, and south of the project site, would be considered sensitive visual receptors. However, it is important to distinguish between public and private views. Private views are views seen from privately-owned land and are typically viewed by individual viewers, including views from private residences. Public views are views that are experienced by the collective public. In the case of the proposed project, public views would consist primarily of views from SR 128 in the project vicinity.

CEQA (Public Resources Code [PRC], Section 21000 et seq.) case law has established that only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488] the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.'" Such a conclusion is consistent with the thresholds of significance in Appendix G of the CEQA Guidelines. Therefore, it is appropriate to focus the aesthetic impact analysis on potential impacts to public views, rather than private views.

Existing Conditions of Key Viewpoints

A number of key viewpoints that would most clearly display the proposed project's potential visual effects have been selected for in-depth analysis. For the purpose of this analysis, multiple views from SR 128, Morgan Street, and East Baker Street within the project vicinity are characterized as key viewpoints (see Figure 4.1-1).

Figure 4.1-1
Representative Views of the Proposed Project



Figure 4.1-2 through Figure 4.1-5 are representative views of the project site from the adjacent roadways. The photos include views from vantage points from roadways along the project site in which the site is visible. It should be noted that the photos do not comprise an exhaustive collection of every view that includes the project site from all vantage points but is meant to show representative views toward the site from the roads in the project vicinity.

Existing Views from SR 128/Timber Crest Road Intersection at the Southeast Corner of the Project Site

Views towards the project site from the SR 128/Timber Crest Road intersection, at the southeastern corner of the project site, consist of traffic signals associated with westbound traffic on SR 128, as well as several trees and overhead utility lines along the frontage of the project site are located in the foreground (see Figure 4.1-2). The project site is perceptible from the viewpoint and is located in the midground. The background consists primarily of a pair of shop buildings, with a cluster of trees to the east of the structures. The viewshed also contains trees from the residence on the parcel to the east of the site. The semi-developed nature of the viewshed is consistent with the transition from the agricultural landscape to the east of the project site to the urban residential neighborhoods to the west of the site.

Existing Views from SR 128/East Main Street Intersection to the South of Project Site

Views towards the project site from SR 128/East Main Street intersection, to the south of the project site, consist of scattered trees, a sign promoting visits to historic downtown Winters, and an unofficial access road to the project site in the foreground (see Figure 4.1-3). Utility poles and lines run along the frontage of the project site in an east-west direction. The project site's agricultural field is perceptible within the viewshed. The rural nature of the viewshed is consistent with the agricultural landscape to the north of the project site.

Existing Views from East Baker Street/White Oak Lane Intersection South of the Project Site

Views towards the project site from the East Baker Street/White Oaks Lane intersection consist of vacant land in the foreground, (see Figure 4.1-4). The midground includes vacant land south of the project site, between East Baker Street and SR 128. The small cluster of pine trees and longer row of pine, palm, and oak trees located along SR 128, at the southern border of the project site, are discernible against the backdrop of the sky. The residential nature of the western portion of the viewshed is consistent with the residential neighborhood located west of the project site.

Existing Views from Broadview Lane/Morgan Street Intersection West of the Project Site

Views towards the project site from the Broadview Lane/Morgan Street intersection consist of a wire fence, ruderal grasses, and a gravel path/driveway in the foreground (see Figure 4.1-5). The project site is perceptible from the viewpoint and is located in the midground. The eastern half of the viewshed's background contains various trees standing out from the sky, while the eastern half contains utility poles and the Fairfield Inn and Suites by Marriott, a hotel located on Matsumoto Lane. The rural nature of the viewshed is consistent with the undeveloped grassland landscape of the project site.

Figure 4.1-2
Existing View of Project Site from SR 128/Timber Crest Road
Looking Northwest



Figure 4.1-3
Existing View of Project Site from SR 128/East Main Street
Looking North



Figure 4.1-4
Existing View of Project Site from East Baker Street/White Oaks Lane Looking North

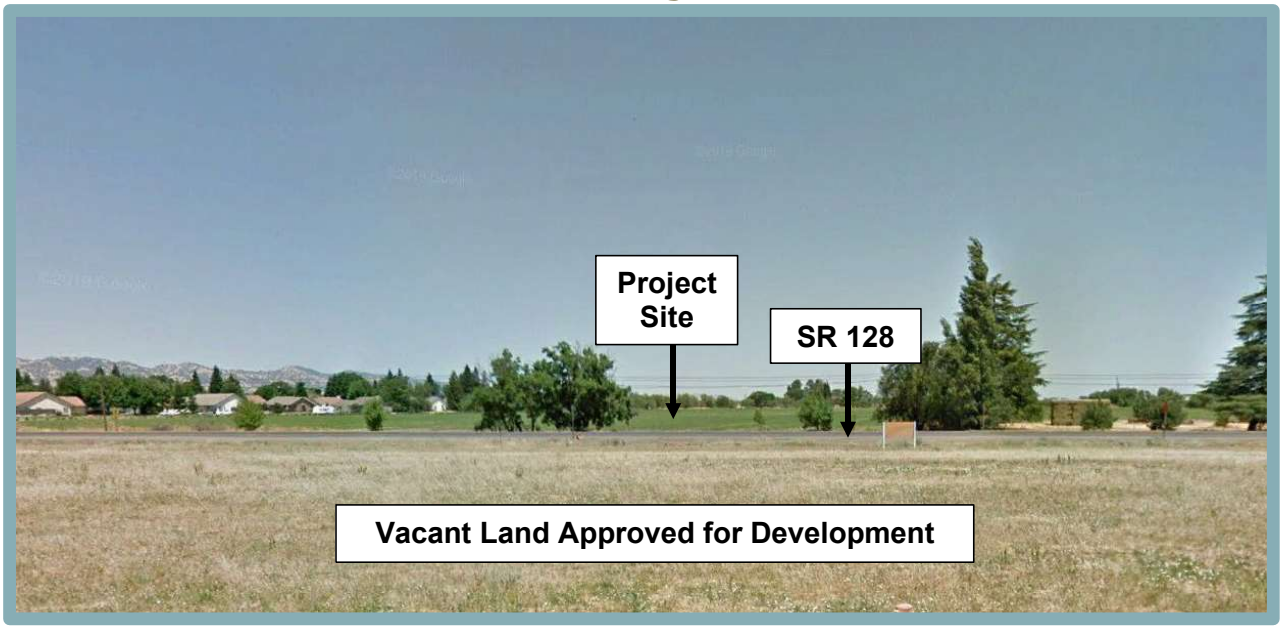
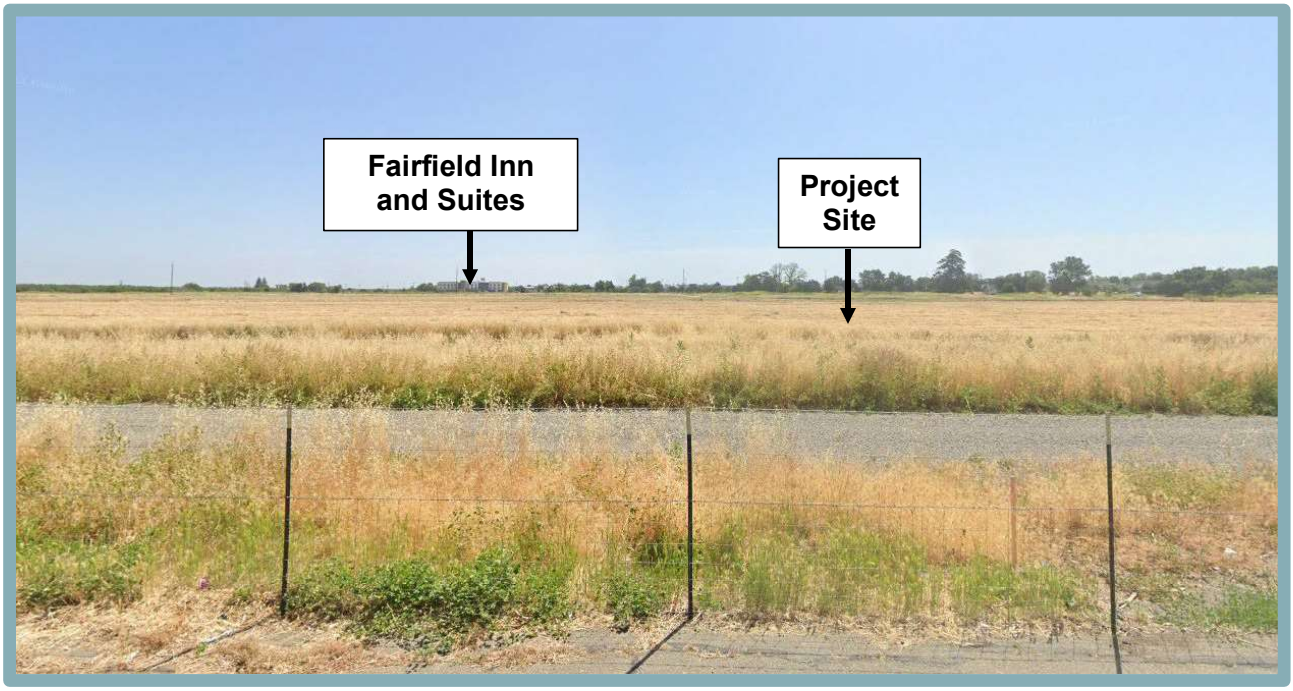


Figure 4.1-5
Existing View of Project Site from Broadview Lane/Morgan Street Looking East



Light Pollution and Glare

Light pollution refers to all forms of unwanted light, including glare, light trespass, sky glow, and over-lighting, particularly as such light effects affects views of the night sky. Views of the night sky can be an important part of the natural environment, particularly in communities surrounded by extensive open space. Excessive light and glare can also be visually disruptive to humans and nocturnal animal species.

The project site is primarily characterized by an undeveloped, unlit landscape. As such, sources of light and glare do not currently occur on the project site. However, the project site is located within the vicinity of existing residential development to the east, west, and south. Lighting associated with such development, as well as street lighting along East Main Street, Broadview Lane, and Colby Lane; and headlights from vehicles traveling on SR 128, East Main Street, Broadview Lane, and Colby Lane contributes to the overall nighttime lighting environment of the project area.

4.1.3 REGULATORY CONTEXT

Applicable federal laws or regulations pertaining to the aesthetic quality of the project area do not exist. However, the existing State and local laws and regulations applicable to the proposed project are listed below.

State Regulations

The following is an applicable State regulation related to aesthetic resources.

California Scenic Highway Program

The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. Such highways are identified in Section 263 et seq. of the California Streets and Highways Code.

Local Regulations

The following local regulations are applicable to the proposed project.

City of Winters General Plan

The following design goals and policies of the City of Winters General Plan are applicable to the proposed project.

Goal I.A To provide for orderly, well-planned, and balanced growth consistent with the limits imposed by the city's infrastructure and service capabilities and by the city's ability to assimilate new growth.

Policy I.A.1 The City shall seek to preserve Winters' traditional small-town qualities and agricultural heritage, while increasing its residential and employment base.

Goal III.F To ensure the adequate provision of both on- and off-street parking.

Policy III.F.1 The City shall require provision of adequate off-street parking in conjunction with all new developments. To the extent possible, parking shall be located behind buildings, out of view from the street. When it is not possible for parking lots to be placed behind

buildings, the City shall require screening to mitigate the visual impact of the lots while providing for continued police surveillance. As much as possible, parking lots should not be located at intersections.

Goal VIII.A To promote the development of a coherent and distinctive physical form and structure that reflects Winters' small-town qualities and agricultural heritage.

Policy VIII.A.1 The City shall maintain and enhance the distinctiveness and integrity of neighborhoods and districts in Winters.

Policy VIII.A.2 The City shall preserve the vital qualities of existing, stable residential neighborhoods and shall promote the development of new residential neighborhoods with these same qualities.

Policy VIII.A.5 The City shall seek to maintain a distinct agricultural definition to the urban edge of the city as a means of emphasizing Winters' small-town qualities and agricultural heritage.

Goal VIII.C To preserve existing community character and fabric and promote the development of neighborhoods and districts that emphasize pedestrian convenience.

Policy VIII.C.2 The City shall promote the creation of well-defined residential neighborhoods in newly-developing areas. Each of these neighborhoods should have a clear focal point, such as a park, school, or other open space and community facility, and should be designed to promote pedestrian convenience. To this end, the City shall encourage the use of existing Winters' neighborhoods, including the grid street system, as models for the planning and design of new residential neighborhoods.

Goal VIII.D To maintain and enhance the quality of the Winters' landscape and streetscape.

Policy VIII.D.7 Lighting in new development, including street lighting, should be designed, installed, and maintained to minimize excess light spillage, unnecessary brightness and glare, and degradation of night sky clarity.

City of Winters Design Guidelines

The City of Winters Design Guidelines includes guidelines and standards that aim to regulate and guide the design and preparation of plans for construction and set guidelines for all private works which involve drainage, grading, erosion control, trees, and related improvements. The purpose of such guidelines is to remove as much design discretion as possible at the staff level in order for prospective developers to assess their chances of approval based on consistency with the guidelines. The overall goal of the City of Winters Design Guidelines is to communicate the Planning Commission's community design expectations, at the earliest stage in the development process.

According to the Guidelines, the City of Winters desires to maintain their small-town character, and developed specific guidelines to facilitate economic and residential development that preserves and enhances that character. Standards for residential development include, but are not limited to, encouraging features such as street parkways, a historic grid design of streets, inter-connectivity between neighborhoods for pedestrians and bicycles, and a mix of large and standard lots within a development project.

4.1.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to aesthetics. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an aesthetic impact is considered significant if the proposed project would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point) or, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Method of Analysis

The section below gives full consideration to the development of the proposed project and acknowledges physical changes to the existing setting. Impacts to the existing environment of the project area are to be determined by the contrast between the visual setting before and after buildout of the proposed project. The standards of significance listed above are used to delineate the significance of any visual alterations of the site, including alterations that would impact views from public viewsheds in the project area.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to aesthetics is based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above.

4.1-1 Have a substantial adverse effect on a scenic vista. Based on the analysis below, the impact is *less than significant*.

Typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. Additionally, while the City of Winters General Plan does not designate official scenic view corridors or vistas, the City is located in the southwestern valley area of Yolo

County, immediately east of Pleasants Ridge. Therefore, implementation of the proposed project could potentially impact views of the ridge.

Although motorists traveling west along SR 128 are able to view the project site, views from SR 128 of the project site are only temporary, as the speed limit on SR 128 is 45 miles per hour (mph). Furthermore, mountain ranges, ridgelines, or bodies of water do not exist on-site.

The proposed project would convert the project site's existing agricultural uses to residential and commercial uses. However, the proposed project would include visual components that would assist in enhancing the appearance of the site following site development. Pursuant to Section 17.76.050 of the City's Municipal Code, plant material selected on landscaping plans would be selected with drought tolerance and energy efficiency in mind. Landscaping trees would conform to the City of Winter's approved tree list. Trees planted along sidewalks and roadways, otherwise known as "streetscapes," would provide an enhanced community experience of walking or driving throughout the proposed project. The scale and size of the trees would be chosen to conform with the scale and width of streets. Five- to 10-foot landscaped corridors would be located along the southern border of the project site, adjacent to SR 128, as well as on both sides of all newly constructed roadways.

While implementation of the proposed project would change the existing visual character of the project site, including potential views of the agricultural uses to the north of the site, the location is adjacent to existing residential communities immediately to the west of the property and to the south across SR 128, as well as commercial uses to the east beyond Timber Crest Road. It should be noted that the undeveloped parcel to the west of the project site is known as the Walnut Lane 10 parcel, which has been previously approved by the City for a 54-lot subdivision development. Therefore, development of the proposed project would be consistent with existing land uses abutting the project site within the City limits.

Furthermore, the proposed project would be consistent with all applicable policies and standards set forth in the City's General Plan and Municipal Code. For example, General Plan Policy VIII.C.2 promotes the creation of well-defined residential neighborhoods with a clear focal point, such as an open space or community facility. The proposed project would include development of two park areas and several bike trails for use by future residents. In addition, the Winters Municipal Code sets forth the City's Architectural Review process. Review and approval of proposed development is performed by the City's Building Inspector and would ensure conformance with the City's architectural design standards. The proposed project would be required to be consistent with all applicable design guidelines and standards, through conformance with Chapter 17.56 of the Municipal Code, which sets forth the Development Standards for the City's base zoning districts, including requirements for building setbacks, height, and lot coverage. Conformance with General Plan policies and the Municipal Code would ensure the proposed project is designed in accordance with the visual character of the area.

Based on the above, the proposed project would not have a substantial adverse effect on a scenic vista, and the project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)
None required.

4.1-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. Based on the analysis below, the impact is *less than significant*.

According to Caltran's list of designated and eligible scenic routes under the State Scenic Highway Program, the nearest State scenic highway to the proposed project is a 35-mile stretch of SR 160, located approximately 25 miles east of the project site and a 12.5-mile stretch of SR 12, located approximately 31.6 miles west of the project site.[6] As such, the proposed project is not located within the vicinity of a State scenic highway. SR 128, located adjacent to the southern project site boundary, is eligible for official designation as a State scenic highway,[7] but has not been formally designated as such. In addition, scenic resources, such as rock outcroppings and historic buildings, do not exist on the project site. It should be noted that the perimeter of the project site contains numerous trees and shrubs; however, because the project site is not visible from a designated State scenic highway, impacts to the views of on-site trees would be negligible.

Based on the above, the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. As such, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.1-3 In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from a publicly accessible vantage point) or, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality. Based on the analysis below, the impact is *less than significant*.

The site is located within the City limits and existing surrounding land uses include two single-family residences and associated outbuildings to the east, across from the unpaved Timber Crest Road; a fueling station and fast-food restaurant located further to the east; undeveloped grassland zoned for C-1 and C-2 uses and a single-family residence with associated outbuildings to the south, across SR 128; a single-family residential neighborhood located further to the south; and a fueling station, grocery store, dental office, and a single-family residential neighborhood located to the west.

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6 California Department of Transportation. *California State Scenic Highway System Map*. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed June 2024.

7 *Ibid.*

A project site, known as the Walnut Lane 10 parcel, has been previously approved by the City and is currently being developed by Montage Homes as a 54-lot subdivision development.

The project site is located in a generally transitional area of the City between urban and agricultural development, and is currently used for annual row crops following row crop farming activities over the past several decades. In addition, an active agricultural field is located north of the project site. Thus, the project site is appropriately analyzed further as a non-urbanized area.

The proposed project would develop the site with 188 single-family residences, a 57-unit townhome community, and 84 multi-family residences, for a total of 329 residences. In addition, the proposed project would include construction of three commercial lots totaling 3.3 acres, new internal roadways, and associated utility improvements, including an on-site sewer lift station. A total of 6.9 acres of the site would be retained as parks (Lots D, E, and F), including an eight-foot-wide bike trail and a 12-foot-wide bike trail. Finally, two acres within the site would consist of a drainage channel (Lot G).

It should be noted that trench locations for all necessary utility improvements, including extensions into the project site from existing infrastructure, would be located within existing or proposed roadways. All utilities would be placed underground, with the exception of an aboveground sewer lift station within the Lot D park. However, Lot D is not located directly adjacent to SR 128 such that the lift station would be located within public views for the passing motorists, and the surrounding landscaping would further obscure the lift station during travel on the proposed internal roadways. As such, installation of utilities would not result in significant alteration to existing vegetation or otherwise permanently degrade the visual character or quality of the project area.

The City of Winters adopted design guidelines in 2011 for the Grant Avenue Business and Commercial District, which includes the stretch of SR 128 that bounds the southern boundary of the project site, as well as an internal portion of the project site. Guidelines are provided for site planning, architecture and building design, connectivity, signs, landscaping, and lighting. Compliance with the design guidelines would be ensured through the City's Design Review process.

As discussed above, case law has established that only public views are protected under CEQA, rather than private views. Public views of the project site are primarily afforded from SR 128, while private views would be afforded from the single-family residential area to the west. Changes to public and private views due to development of the proposed project are discussed separately in further detail below.

Public Views (Views from State Route 128)

With development of the proposed project, views of the project site from SR 128 would change from a predominantly undeveloped rural landscape to a mixed-use development comprised of commercial uses, high-density residences, and single-family residences. However, the proposed landscaping trees at the southern boundary of the project site would screen views of the site from motorists and pedestrians traveling along SR 128 to the south of the site. Specifically, the landscaping trees

would help to screen the proposed surface parking areas associated with the new townhome, high-density residential, and commercial uses from views along SR 128. Remaining vegetation and additional plantings would also help to screen views of the proposed sewer lift station in Lot D.

Given that 33.7 acres of the approximately 61.9-acre project site are currently designated Low Density Residential (LR) by the City's General Plan, the City has previously considered development of the project site with residential uses. While the project would include a General Plan Amendment and Rezone to allow for the development of the site with residential, commercial, and open space uses, the proposed residential zones would be consistent with the existing single-family residential neighborhood to the west of the site. Therefore, the proposed project would encourage visual cohesion between the project site and the existing residences in the project area.

In addition, the proposed project would be consistent with the specific design guidelines contained in the City of Winters Design Guidelines, and all applicable sections of Section 17.56, Lot Development Standards, and Section 17.36, Design Review, of the City's Municipal Code. Based on the above, public views of the project site from SR 128 would not be considered substantially degraded. Furthermore, public views of the project site would not be from a stationary standpoint, but would be static, occurring only as motorists, pedestrians, and cyclists pass by the site.

Private Views

As previously discussed, private views are seen from privately-owned land and are typically viewed by individual viewers, such as from private residences. Case law has established that CEQA protects only public views, not private views. However, an evaluation of the changes to private views as a result of the proposed project has been included for informational purposes. In the case of the proposed project, private views would consist primarily of views from the single-family residences to the west. The closest approximation of private views would be the views from East Baker Street/White Oaks Lane looking north, and views looking east from Broadview Lane (see Figure 4.1-4 and Figure 4.1-5).

With development of the proposed project, private views of the project site would change from a predominantly undeveloped rural landscape to a mixed-use development comprised of commercial uses, high-density residences, and single-family residences. However, the proposed single-family residences at the western project site boundary would partially obscure views of the site for viewers within existing residential areas. Such views would be consistent with the views of existing residences in the surrounding neighborhood. Similar to the discussion above, the proposed landscaping trees at the southern boundary of the project site would continue to partially obscure views of the site for sensitive private viewers to the south of the site across SR 128.

In addition, the proposed project would be consistent with the City of Winters Design Guidelines, as well as all applicable sections of Section 17.56, Lot Development Standards, and Section 17.36, Design Review, of the City's Municipal Code. Overall,

the proposed project would not degrade private views beyond the extent that public views are degraded, as discussed above.

Conclusion

As discussed above, the project site is currently used for annual row crops, but vegetation within the project site consists primarily of ruderal non-native species, and thus, does not contain any distinctive scenic resources. While the proposed single-family residential development would result in noticeable changes to the existing visual character of the project site as viewed from public vantage points along SR 128 in the project vicinity, the project would not substantially degrade the character of a site that has high visual quality. Views of the landscape corridors constructed along the southern boundary, adjacent to SR 128, and the linear park along the eastern boundary would be visible for motorists, cyclists, and pedestrians travelling along the road.

In addition, changes to the visual character and quality of the site associated with development of the project site have been anticipated by the City, and the proposed project would be designed to maximize the visual quality of all project frontages. Furthermore, all project design elements would comply with applicable guidelines and regulations related to visual quality, including the City of Winters Grant Avenue Design Guidelines, as established by General Plan Policy VIII.A.7. Therefore, the proposed project would not be considered to substantially degrade the existing visual character or quality of public views of the site and its surroundings. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.1-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As noted previously, the proposed project site is primarily characterized by an undeveloped, unlit landscape. Thus, development of the project site with commercial and residential uses, as well as associated improvements, would introduce additional sources of light and/or glare to a site where none currently exist.

Individual homes within the project site would introduce new sources of night lighting in the form of exterior light sources such as porch and patio lights, architectural accent lighting, motion activated security lighting, driveway lighting, landscape lighting, and interior lighting visible through windows. All lighting, such as the lighting along the SR 128 frontage, would be consistent with the small-town character of the City and would be of an adequate level to ensure public safety and create a sense of security as required by the City of Winters Design Guidelines.[8] In addition, pursuant to the City of Winters General Plan Policy VIII.D.7, the lighting for the proposed project would be "designed, installed, and maintained to minimize excess light spillage, unnecessary

[8] City of Winters. *Winters Design Guidelines.* November 1999.

brightness and glare, and degradation of night sky clarity." The proposed project would be subject to the foregoing and all other applicable sections of the Winters Design Guidelines and General Plan policies related to light pollution, including, but not limited to, design features that limit impacts of lighting on adjacent buildings.

However, because the types of lighting and the specific locations have not yet been determined, the proposed project could increase the amount of light and glare generated on-site, which could be visible from the surrounding residential development and roadways in the project vicinity. Therefore, the proposed project could be considered to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.1-4(a) *Prior to approval of Improvement Plans, the project applicant shall submit a photometric and proposed lighting plan for the project to the City of Winters Community Development Department for review and approval, demonstrating that the proposed lighting will not adversely affect adjacent areas. The lighting plan shall include, but not necessarily be limited to, the following provisions:*

- *Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties;*
- *Place and shield or screen flood and area lighting needed for construction activities and/or security so as not to disturb adjacent residential areas and passing motorists; and*
- *For public lighting, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, metal halide lamps, or fluorescent bulbs) or that blink or flash.*

4.1-4(b) *Prior to approval of building permits, the project applicant shall submit final plans that demonstrate the use of appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage to prevent light and glare from adversely affecting motorists on nearby roadways. Proof or compliance shall be submitted to the City of Winters Community Development Department for review and approval.*

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the

change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Some types of impacts to aesthetic resources are localized and not cumulative in nature. For example, the creation of glare or shadows at one location is not worsened by glare or shadows created at another location. Rather these effects are independent, and the determination as to whether they are adverse is specific to the project and location where they are created. Projects that block a view or affect the visual quality of a site also have localized aesthetic impacts. The impact occurs specific to a site or area and remains independent from another project elsewhere that may block a view or degrade the visual environment of a specific site.

Two types of aesthetic impacts may be additive in nature and thus cumulative: night sky lighting, and overall changes in the visual environment as the result of increasing urbanization of large areas. As development in one area increases and possibly expands over time and meets or connects with development in an adjoining exurban area, the effect of night sky lighting experienced outside of the region may increase in the form of larger and/or more intense nighttime glow in the viewshed.

Similarly, as development in one area changes from rural to urban and the pattern continues to occur throughout the undeveloped areas of a jurisdiction, the changes in visual character may become additive and cumulatively considerable. The proposed project's incremental contribution to night sky lighting and changes in visual character are addressed below.

4.1-5 Long-term changes in visual character associated with cumulative development of the proposed project in combination with future buildout of the City of Winters General Plan Study Area. Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

The geographic setting for analysis of long-term cumulative changes in visual character associated with the proposed project is the area covered by the City of Winters General Plan, as development within the General Plan area has the potential to affect many of the same views analyzed for the proposed project. Future development within the General Plan area that would result in changes to the existing visual character was evaluated within the General Plan EIR, which identified features of the City with a unique nature and evaluated the impacts of new development on those features. Specific views of the project site from SR 128 and nearby residential areas are identified in Figure 4.1-2 through Figure 4.1-5 of this chapter, and do not generally qualify as unique.

Currently, a number of projects within the General Plan planning area are under construction or are in process, including the Walnut Lane 10 Project, which is located directly adjacent to the northwest corner of the project site and is bound by agricultural land to the north and neighboring residential uses to the west and south. Development of other approved projects, as well as the proposed project site, would change the existing visual character of those specific locations from vacant or minimally developed land to more intensively developed single-family residential areas. However, such development would be subject to the same City regulations and guidelines designed

to ensure compatibility with adjacent land uses and ensure an unobtrusive visual character. It should be noted that the City's General Plan EIR concluded that significant impacts to aesthetics and visual resources related to development of the planning area would not occur with implementation of General Plan policies designed to preserve the visual and scenic qualities of the area.

Specifically, such projects would be required to comply with the Winters Design Guidelines, the specific design guidelines contained in the General Plan, and all applicable sections of the Municipal Code. The proposed project and all reasonably foreseeable development would also be subject to the City's Design Review process, as set forth in Chapter 17.36 of the Municipal Code, to ensure consistency with the Winters Design Guidelines. The City's review process would ensure that the proposed project and all future development would incorporate natural building materials, colors, and landscaping to reduce impacts on visual character and maintain consistency with the general area. While cumulative projects in the General Plan area would result in conversion of vacant land to developed land, development would include new residences that would be well designed and consistent with other residential developments in the larger project vicinity. Development patterns would include landscaping consistent with the standards in Section 17.76.040 of the City's Municipal Code, and setbacks consistent with Chapter 17.56 of the Municipal Code. Together, such features would both screen the proposed project from neighbors and provide a visual transition from existing surrounding rural residential lots.

Cumulative buildout in the geographic area would result in a substantial change in visual character of the region and, thus, a significant cumulative impact would occur. However, as discussed above, the proposed project would not result in substantial degradation of the visual character and quality of public views of the site and its surroundings. Therefore, the project's incremental contribution to the significant impact would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

4.1-6 Creation of new sources of light or glare associated with cumulative development of the proposed project in combination with future buildout of the City of Winters General Plan Study Area. Based on the analysis below, the impact is *less than significant*.

Cumulative effects of lighting are visible over a wide area, due to the potential for lighting from a number of projects to create sky glow. Cumulative development throughout the City of Winters, particularly conversion of rural or currently vacant sites to urban uses, would increase the sources of light and glare, which would have the potential to contribute to sky glow in the area. Such sources of light would be typical of existing residential development in the project area, such as the residential subdivisions located to the west and south of the project site.

The City's General Plan EIR analyzed the potential for buildout of the General Plan area to result in increases of light and glare and concluded that cumulative impacts

would be minimized by incorporating design features and operating requirements into new development that limit light and glare on-site. The General Plan EIR also identified industrial land uses as a significant contributor to the loss of night sky clarity and notes the intentional design of the City so that industrial zoning designations are not located next to residential areas. The proposed project would comply with General Plan Policy VIII.D.7, which requires lighting in new development to be designed, installed, and maintained to minimize excessive light. In addition, the proposed project would not include any industrial land uses. Therefore, the proposed project would not violate either standard related to cumulative light pollution established in the General Plan EIR. The above policies are enforced through the City's Design Review process, as established in Chapter 17.36 of the City's Municipal Code.

As discussed under Impact 4.1-4 above, the proposed project would introduce new sources of light and glare through the project's residences, neighborhood parks, commercial development, and roadway improvements. However, compliance with all applicable standards and regulations, including the aforementioned City policies and Mitigation Measure 4.1-4, would ensure light from the proposed development would not result in significant impacts associated with light or glare. Furthermore, future development projects would be required to comply with the Winters Design Standards and, potentially, the City of Winters Grant Avenue Design Guidelines. Such compliance would ensure the proposed project does not create a substantial source of light or glare in the project vicinity. Thus, similar to the proposed project, each individual future project's light and glare would not be anticipated to be substantial and would not significantly contribute to sky glow in the region.

Based on the above, through adherence to all applicable policies and standards set forth in the General Plan and Municipal Code, development of the proposed project in combination with future buildout of the General Plan Study Area would not create new sources of substantial light and glare. Therefore, the cumulative impact would be ***less than significant***.

Mitigation Measure(s)

None required.

4.2 Agricultural Resources

4.2 AGRICULTURAL RESOURCES

4.2.1 INTRODUCTION

The Agricultural Resources chapter of the EIR describes the status of the existing agricultural resources within the boundaries of the project site using current state data, including identification of any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Documents referenced to prepare this chapter include the City of Winters General Plan,[1] the City of Winters General Plan EIR,[2] the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey,[3] and the California Department of Conservation Important Farmland Finder.[4]

It should be noted that based on the analysis included in the Initial Study prepared for the proposed project (Appendix A), no impact related to forestry resources was identified. Additionally, the site is not currently zoned for agricultural use, and the project site is not currently under a Williamson Act contract, and, therefore, impacts related to such were determined to be less than significant. Accordingly, further analysis of forestry resources or conflicts with an existing agricultural zoning or a Williamson Act contract are not discussed further in this EIR.

4.2.2 EXISTING ENVIRONMENTAL SETTING

The Existing Environmental Setting section describes current farmland and soil productivity classification systems, as well as the extent and quality of any agricultural resources present on the project site.

Regional Agricultural Environment

The project region is characterized primarily by continuous agricultural lands within a broad, alluvial valley surrounded by distant rolling hills. Cache Creek generally meanders west to east and runs into the Sacramento Valley, ending in a settling basin east of Woodland, before eventually flowing into the Sacramento River. The regional topography is generally flat, and vegetation, other than agricultural crops within the region, is primarily limited to grasslands, ornamental landscaping, and scattered native vegetation.

The region around the City of Winters is rural and sparsely populated, with urban development being primarily concentrated within small towns such as Winters, Capay, Esparto, and Madison. Rural residences, farm dwellings with various accessory and agricultural structures, and commercial uses are located sparsely throughout the landscape. Roads provide interconnections between agricultural properties planted with various crops, such as row crops, orchards, and vineyards. The majority of Yolo County's farmland is designated as Prime Farmland, particularly in flat areas; and the western foothills of the County are predominantly classified as Grazing Land.

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1 City of Winters. *The City of Winters General Plan Policy Document*. Adopted May 19, 1992.
2 City of Winters. *City of Winters General Plan Final Environmental Impact Report*. Certified May 1992.
3 United States Department of Agriculture, National Resources Conservation Service. *Web Soil Survey*. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed August 2023.
4 California Department of Conservation. *Farmland Mapping & Monitoring Program*. Available at: https://www.conservation.ca.gov/dlrp/fmmp. Accessed August 2023.

Agricultural Productivity of Soils

The USDA NRCS uses two systems to determine a soil's agricultural productivity: the Land Capability Classification System and the Storie Index Rating System. The "prime" soil classification of both systems indicates the presence of few to no soil limitations, which, if present, would require the application of management techniques (e.g., drainage, leveling, special fertilizing practices) to enhance production.

The Land Capability Classification System takes into consideration soil limitations, the risk of damage when soils are used, and the way in which soils respond to treatment. Capability classes range from Class I soils, which have few limitations for agriculture, to Class VIII soils, which are unsuitable for agriculture. Generally, as the rating of the capability classification system increases, yields and profits are more difficult to obtain. A general description of soil classification, as defined by the NRCS, is provided in Table 4.2-1.

The Storie Index Rating system ranks soil characteristics according to suitability for agriculture from Grade 1 soils (80 to 100 rating), which have few or no limitations for agricultural production, to Grade 6 soils (less than 10 rating), which are not suitable for agriculture. Under the Storie Index Rating system, soils deemed less than prime can function as prime soils when limitations such as poor drainage, slopes, or soil nutrient deficiencies are partially or entirely removed. Unlike the Land Capability Classification outlined above, the Storie Index Rating System does not distinguish between irrigated and non-irrigated soils. The six grades, ranges in index rating, and definition of the grades, as defined by the NRCS, are provided below in Table 4.2-2.

Table 4.2-1
Land Capability Classification

Class	Definition
I	Soils have slight limitations that restrict their use.
II	Soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.
III	Soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.
IV	Soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove that limit their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
VIII	Soils and landforms have limitations that preclude their use for commercial plants and restrict their use to recreation, wildlife habitat, or water supply or to aesthetic purposes.

Note: Capability subclasses are soil groups within one class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, IIe. The letter e shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

Source: USDA NRCS, Soil Survey of Yolo County, 1972.

Table 4.2-2
Storie Index Rating System

Grade	Index Rating	Definition
1 – Excellent	80 through 100	Soils are well suited to intensive use for growing irrigated crops that are climatically suited to the region.
2 – Good	60 through 79	Soils are good agricultural soils, although they may not be so desirable as Grade 1 because of moderately coarse, coarse, or gravelly surface soil texture; somewhat less permeable subsoil; lower plant available water holding capacity, fair fertility; less well drained conditions, or slight to moderate flood hazards, all acting separately or in combination.
3 – Fair	40 through 59	Soils are only fairly well suited to general agriculture use and are limited in their use because of moderate slopes; moderate soils depths; less permeable subsoil; fine, moderately fine or gravelly surface soil textures; poor drainage; moderate flood hazards; or fair to poor fertility levels, all acting alone or in combination.
4 – Poor	20 through 39	Soils are poorly suited. They are severely limited in their agricultural potential because of shallow soil depths; less permeable subsoil; steeper slope; or more clayey or gravelly surface soil texture than Grade 3 soils, as well as poor drainage; greater flood hazards; hummocky micro-relief; salinity; or poor fertility levels, all acting alone or in combination.
5 – Very Poor	10 through 19	Soils are very poorly suited for agriculture, are seldom cultivated and are more commonly used for range, pasture, or woodland.
6 – Non-Agriculture	Less and 10	Soils are not suited for agriculture at all due to very severe to extreme physical limitations, or because of urbanization.

Source: USDA NRCS, Soil Survey of Yolo County, 1972.

Table 4.2-3 below summarizes the existing on-site soil types along with the Land Capability Classification and Storie Index Rating for each soil type. The locations of the soil types are shown in Figure 4.2-1.

Table 4.2-3
Agricultural Ratings of On-Site Soils

Soil Name and Map Symbol	Land Capability Classification	Storie Index	Grade	NRCS Farmland Classification
Brentwood silty clay loam (BrA)	I	90	1	Prime Farmland if irrigated
Rincon silty clay loam (Rg)	II	90	1	Prime Farmland if irrigated

Source: USDA NRCS, 2023.

As shown in Table 4.2-3, according to the USDA NRCS Web Soil Survey conducted for the project site, soils within the project site have Land Capability Classifications of Class I and Class II. Class I soils are defined as having slight limitations that restrict their use. Class II soils are defined as having moderate limitations that reduce the choice of plants or that require moderate conservation practices.[5] The Storie Index Ratings of the on-site soils are Grade 1 – Excellent. Grade 1 soils have few limitations that restrict use and are suitable for most crops.

[5] U.S. Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey.* Available at: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed October 2023.

Figure 4.2-1
On-Site Soil Map



Source: USDA NRCS, 2023.

In addition, the two different soil types found on-site are described as follows:

- *Brentwood silty clay loam, zero to two percent slopes (BrA)* is located in Alluvial fans. Brentwood silty clay loam is classified as well-drained with slow to rapid runoff and slow permeability. The Brentwood silty clay loam soil is primarily used for tree fruit, nut crops, vegetables, and field crops.[6]
- *Rincon silty clay loam (Rg)* is located on alluvial fans. Rincon silty clay loam soils are well drained with slow to rapid runoff and slow permeability. Rincon silty clay loam is primarily used for irrigated citrus, deciduous fruits, row crops, and alfalfa.[7]

Farmland Classifications

The Farmland Mapping and Monitoring Program (FMMP), part of the California Department of Conservation (DOC) Division of Land Resource Protection, uses soil agricultural productivity information from the NRCS to create maps illustrating the types of farmland in a particular area.

The FMMP was established in 1982 to continue the Important Farmland mapping efforts begun in 1975 by the USDA. The intent of the USDA was to produce agriculture maps based on soil quality and land use across the nation. As part of the nationwide agricultural land use mapping effort, the USDA developed a series of definitions known as Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified the land's suitability for agricultural production; suitability included both the physical and chemical characteristics of soils and the actual land use. Important Farmland maps are derived from the USDA soil survey maps using the LIM criteria.

Since 1980, the State of California has assisted the USDA with completing the mapping in the State. The FMMP was created within the California DOC to carry on the mapping activity on a continuing basis, and with a greater level of detail. The California DOC applied a greater level of detail by modifying the LIM criteria for use in California. The LIM criteria in California utilize the Land Capability Classification and Storie Index Rating systems, but also consider physical conditions such as dependable water supply for agricultural production, soil temperature range, depth of the groundwater table, flooding potential, rock fragment content, and rooting depth.

The California DOC classifies lands into seven agriculture-related categories: Prime Farmland, Farmland of Statewide Importance (Statewide Farmland), Unique Farmland, Farmland of Local Importance (Local Farmland), Grazing Land, Urban and Built-up Land (Urban Land), and Other Land. The first four types listed above are collectively designated by the State as Important Farmlands. Important Farmland maps for California are compiled using the modified LIM criteria and current land use information. The minimum mapping unit is 10 acres unless otherwise specified. Units of land smaller than 10 acres are incorporated into surrounding classifications.

Each of the seven land types are summarized below, based on California DOC's Guide to the Farmland Mapping and Monitoring Program.[8]

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6 United States Department of Agriculture. *Brentwood Series.* Available at: https://soilseries.sc.egov.usda.gov/OSD_Docs/B/BRENTWOOD.html. Accessed October 2023.

7 United States Department of Agriculture. *Rincon Series*. Available at: https://soilseries.sc.egov.usda.gov/OSD_Docs/R/RINCON.html. Accessed October 2023.

8 California Department of Conservation, Division of Land Resource Protection. *A Guide to the Farmland Mapping and Monitoring Program*. 2004.

Prime Farmland
Prime Farmland is land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. The land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have been used for the production of irrigated crops at some time during the two update cycles (a cycle is equivalent to two years) prior to the mapping date.

Farmland of Statewide Importance
Farmland of Statewide Importance is land similar to Prime Farmland, but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.

Unique Farmland
Unique Farmland is land of lesser quality soils used for the production of the State's leading agricultural crops. The land is usually irrigated, but may include non-irrigated orchards or vineyards, as found in some climatic zones in California. The land must have been cultivated at some time during the two update cycles prior to the mapping date.

Farmland of Local Importance
Farmland of Local Importance is land of importance to the local agricultural economy, as determined by each county's Board of Supervisors and a local advisory committee. Yolo County farmland of local importance includes cultivated farmland having soils which meet the criteria for Prime or Statewide, except that the land is not presently irrigated, and other nonirrigated farmland.

Farmland of Local Potential
Farmland of Local Potential is a subcategory of Farmland of Local importance and aggregated with Farmland of Local Importance acreage in the land use conversion table. Yolo County is one of four counties that include Farmland of Local Potential. The category is defined in Yolo County as Prime or Statewide soils which are presently not irrigated or cultivated.

Grazing Land
Grazing Land is land on which the existing vegetation, whether grown naturally or through management, is suited to the grazing of livestock. The minimum mapping unit for the Grazing Land category is 40 acres.

Urban Land
Urban and Built-Up Land is occupied with structures with a building density of at least one unit to one-half acre. Uses may include but are not limited to, residential, industrial, commercial, construction, institutional, public administration purposes, railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities are mapped as part of this unit, if they are part of a surrounding urban area.

Other Land
Other Land is land that is not included in any other mapping categories. The following uses are generally included: rural development, brush timber, government land, strip mines, borrow pits, and a variety of other rural land uses.

Project Site Farmland Classifications

Based on the Land Capability Classification and Storie Index Rating systems, as well as the physical conditions of the project site, the FMMP designates the majority of the 61.9-acre project site is designated as Prime Farmland (see Figure 4.2-2). The northern portion of the project site is designated as Farmland of Local Potential, and the southern portion is designated as Other Land. A summary of the FMMP designations on the project site is provided in Table 4.2-4.

Table 4.2-4
FMMP Designation Summary

Designation	Acres
Prime Farmland	52.3
Farmland of Local Potential	4.6
Other Land	5
TOTAL	**61.9**

Existing Agricultural Operations

Based on historic aerial photos, the project site has been used for farming since at least 1968, with the ground periodically tilled for row crops, hay, or other dry farming purposes. The project site currently serves as an undeveloped agricultural field used for annual row crops.

4.2.3 REGULATORY CONTEXT

State laws or regulations pertaining to agricultural resources are not applicable for this analysis. However, the existing federal and local laws and regulations are listed below, as applicable.

Federal Regulations

The following are applicable federal regulations related to agricultural resources.

Farmland Protection Policy Act

The NRCS, a federal agency within the USDA, is the agency primarily responsible for the implementation of the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize federal programs' contribution to the conversion of farmland to nonagricultural uses by ensuring that federal programs are administered in a manner that is compatible with state, local and private programs designed to protect farmland. NRCS provides technical assistance to federal agencies, state, and local governments; tribes or non-profit organizations that desire to develop farmland protection programs and policies.

The FPPA also established the Farmland Protection Program (FPP) and the Land Evaluation and Site Assessment (LESA). The LESA system ranks lands for suitability and inclusion in the FPP. LESA evaluates several factors, including soil potential for agricultural uses, location, market access, and adjacent land uses. The LESA system has spawned many variations, including the California LESA model, which is used in California's FMMP.

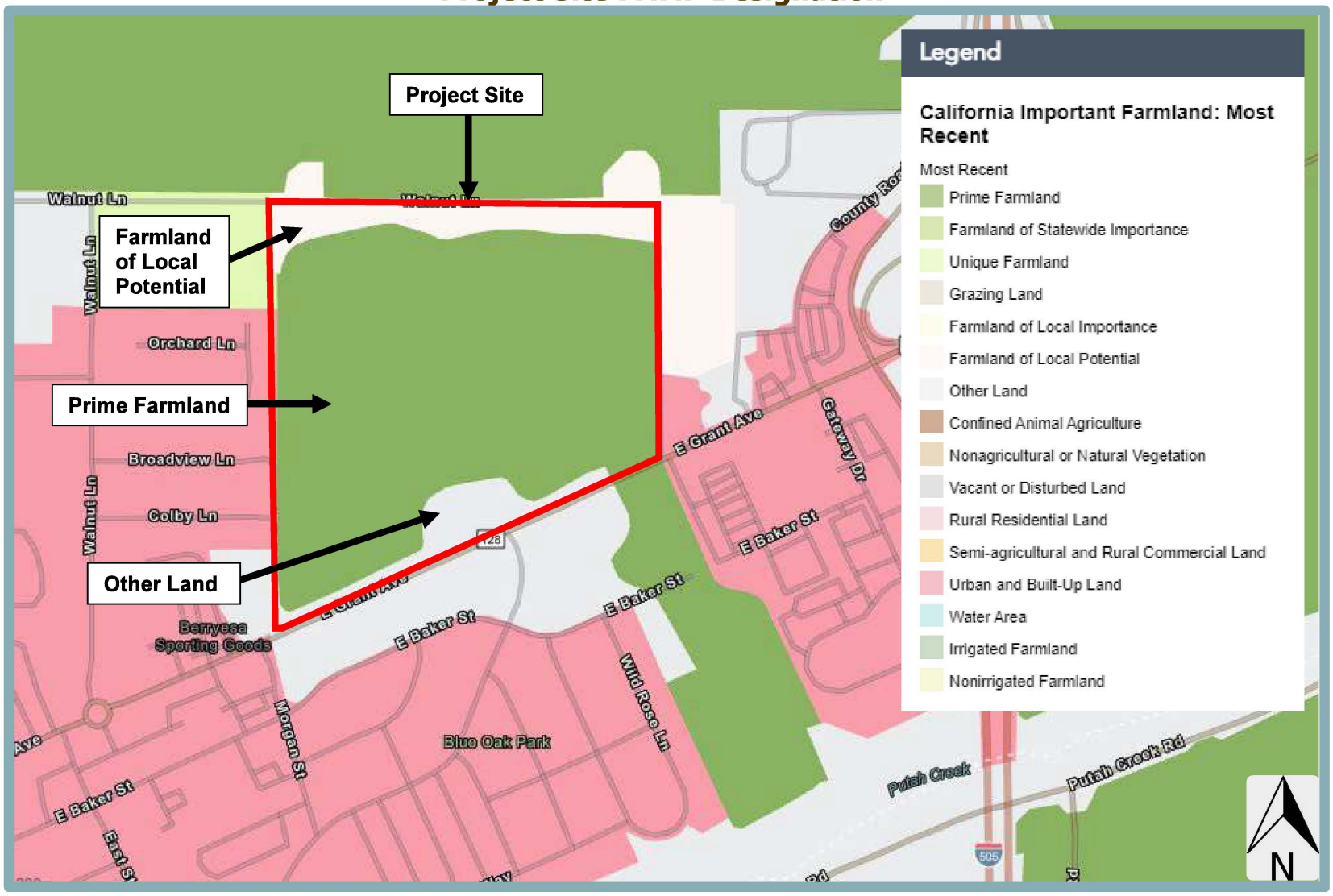
State Regulations

The following are applicable State regulations related to agricultural resources.

California Land Conservation Act – Williamson Act

The California Land Conservation Act, better known as the Williamson Act, has been the State's premier agricultural land protection program since the act's enactment in 1965.

Figure 4.2-2
Project Site FMMP Designation



Source: California Department of Conservation. California Important Farmland Finder. 2024.

The California legislature passed the Williamson Act in 1965 to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The Act creates an arrangement whereby private landowners' contract with counties and cities to voluntarily restrict land to agricultural and open-space uses. The vehicle for these agreements is a rolling term 10-year contract (i.e., unless either party files a "notice of nonrenewal," the contract is automatically renewed annually for an additional year). In return, restricted parcels are assessed for property tax purposes at a rate consistent with their annual use, rather than potential market value. The project site is not subject to a Williamson Act contract.

Local Regulations

The following are the local regulations and standards pertinent to the proposed project with respect to agricultural resources.

City of Winters General Plan

The relevant goals and policies from the City's General Plan related to agricultural resources are presented below.

Goal VI.B: To promote the continued productivity of agricultural land surrounding Winters and to prevent the premature conversion of agricultural land to urban uses.

Policy VI.B.1. The City shall support the continuation of agricultural and related uses on lands within the Urban Limit Line designated for urban uses until urban development is imminent.

Policy VI.B.3. Along the northern and western portion of the Urban Limit Line new residential development that abuts designated and active agricultural land shall incorporate buffers to minimize agricultural-residential conflicts and nuisance problems. The size of the buffer zone shall be determined by the type of agricultural activities involved. The buffer zone may consist of open space, recreational uses, landscaped areas, streets or other non-intensive uses.

City of Winters Right to Farm Ordinance

The City of Winters has adopted a Right-to-Farm-Ordinance (Chapter 17.88 of the City of Winters Municipal Code) to minimize loss of the City's commercial agricultural resources by limiting the circumstances under which agricultural operations may be deemed to constitute a nuisance. The provisions of the Right-to-Farm Ordinance are as follows:

Section 17.88.010 - Properly operated farm not a nuisance.

> No agricultural operation conducted or maintained on commercial agricultural lands, and in a manner consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, public or private, due to any changed condition to a non-agricultural use in or about the locality. Proper and accepted customs and standards shall mean those followed on agricultural lands not adjacent to nonagricultural uses.

Consideration shall be given to providing adequate buffers to any nearby nonagricultural development at the site-planning stage. (Ord. 97-03 § 2 (part): prior code § 8-1-6007(A)(1))

Section 17.88.020 - Resolution of disputes.

A. Establishment of Grievance.

Any dispute or controversy regarding inconveniences or discomforts from agricultural operations and the interpretation and application of this chapter shall be resolved through the following procedure. Inquiries should be submitted in writing to the city zoning administrator. The written grievance shall state in detail the basis for such a grievance and identify the properties and owner(s) involved. The party filing the written grievance shall provide a copy of the grievance to all other parties by certified mail within five working days of the date the grievance is filed.

B. Timetable for Submission of Grievance.

Any grievance shall be submitted in writing within thirty (30) days of the date of the occurrence of the particular activity giving rise to the controversy or of the date a party became aware of the occurrence.

C. Consideration of Grievance by the Zoning Administrator.

Upon receipt of a written grievance, the zoning administrator shall investigate the facts of the controversy, but must, within thirty (30) days, hold a meeting to consider the merits of the matter and within twenty (20) days after the meeting render a written decision to the parties. At the time of the meeting, both parties shall have an opportunity to present what each considers to be pertinent facts. No party bringing a complaint to the zoning officer for resolution may be represented by counsel unless the opposing party is also represented by counsel.

D. Appeals.

The planning commission shall have the power to hear and decide appeals based on the enforcement of this title, or the interpretation of the provisions thereof. Applications with the required fee for appeal shall be made in writing to the planning commission within fifteen (15) days. No further appeal of planning commission decisions will be considered. (Ord. 97-03 § 2 (part): prior code § 8-1-6007(A)(2))

Section 17.88.030 - Notice to purchasers of real property.

A. Requirement of Notice.

Upon any subdivision or later transfer of real property within five hundred (500) feet of agricultural land and annexed to the city after the establishment of this title, the party requesting subdivision or transfer shall give notice of this chapter to prospective transferees of the real property prior to the transfer as part of all disclosures required by law as authorized by Civil Code 1102.6a in the form set forth in Civil Code 1l02.6a. In addition, notice of this chapter shall be recorded with any deed, land sale, contract and lease of any property. The notice shall be in the form set forth in Section 17.16.040.

B. Description of Notice.

The notice described in above shall read as follows:

The city supports the operation of agricultural and related uses on lands within its city limits and urban limit line. To this end, the city has enacted regulations within its zoning ordinance which provides that properly conducted agricultural operations, or the discomforts arising from them, will not be deemed a nuisance. The ordinance further requires transferors of real property located within five hundred (500) feet of an agricultural operation to give notice of the ordinance and its provisions to transferees of the real property.

Accordingly, you are hereby notified that if the property in which you are acquiring an interest is located within five-hundred (500) feet of an agricultural operation, you may be subject to inconvenience or discomfort arising from such operations including, but not limited to: noise, odors, fumes, smoke, dust, traffic, the operation of machinery of any kind, the storage and disposal of manure, and the ground or aerial application of fertilizers, soil amendments, herbicides and pesticides. These operations may take place during any twenty-four (24) hour period.

If you live near or otherwise occupy property near agricultural lands, you should be prepared to accept such inconveniences or discomfort as a normal and necessary aspect of living in a city with a strong agricultural heritage.

The city has established a grievance process to assist in the resolution of any dispute which might arise between residents and farmers living or operating in the city's sphere of influence regarding agricultural operations. For information about this process or the location of agricultural lands and operations in relationship to your property, please contact the Winters community development department. (Ord. 97-03 § 2 (part): prior code § 8-1.6007(A)(3))

4.2.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to agricultural resources. A discussion of the project's impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an impact related to agricultural resources is considered significant if the proposed project would:

- Result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use;
- Conflict with existing zoning for agricultural use or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g]); or
- Result in the loss of forest land or conversion of forest land to non-forest use;
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Issues Not Discussed Further

The Initial Study prepared for the proposed project (see Appendix A) determined that development of the proposed project would result in no impact or a less-than-significant impact related to the following:

- Conflict with existing zoning for agricultural use or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g]); or
- Result in the loss of forest land or conversion of forest land to non-forest use.

For the reasons cited in the Initial Study (Section II, Agriculture and Forest Resources), the potential impacts associated with the above are not analyzed further in this EIR.

Method of Analysis

Evaluation of potential impacts of the proposed project on agricultural resources was based on the following: the City of Winters General Plan, the associated EIR, the NRCS Web Soil Survey, and the FMMP online mapping system. Soil data from the USDA NRCS was used to characterize the amount of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance within the project site boundaries. The area of disturbance associated with the proposed project was overlaid with the known on-site agricultural resources to determine the overall impact to agricultural land that would occur with development of the proposed project. The standards of significance listed above are used to delineate the significance of any potential impacts.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above.

4.2-1 Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. Based on the analysis below, due to the lack of feasible mitigation, the impact is *significant and unavoidable*.

Impacts related to the conversion of agricultural land were previously analyzed in the General Plan EIR, which concluded that impacts would be significant and unavoidable due to the removal of agricultural land from production from conversion to urban uses. The General Plan EIR found buildout of the General Plan would convert an estimated 610 acres of Prime farmland to non-agricultural uses. The General Plan included policies to lessen impacts related to conversion of agricultural land, but not to less-than-significant levels. The City Council adopted a Statement of Overriding Considerations (Resolution 92-13, Exhibit C, adopted May 19, 1992) regarding impacts determined to be significant and unavoidable.

The City of Winters General Plan designates the northwest portion of the site as LR and the southern portion of the site as NC. Therefore, the conversion of farmland associated with development of portions of the site has already been anticipated by the City. Nonetheless, as noted previously, according to the FMMP, 52.3 acres of the 61.9-acre project site is designated as Prime Farmland. The proposed project would include development of the site with a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex; three commercial lots totaling 3.3 acres; and 6.9 total acres of park uses. Thus, development of the proposed project would permanently convert 52.3 acres of Prime Farmland to non-agricultural use.

While impacts to agricultural land associated with buildout of the General Plan, including portions of the project site, have been previously analyzed by the City of Winters, implementation of the proposed project would still result in a ***significant*** impact related to the conversion of Prime Farmland to non-agricultural use.

Mitigation Measure(s)

While the following mitigation measure would preserve an equivalent acreage of Farmland elsewhere, the proposed project would result in the conversion of agricultural land to urban uses and would not create new agricultural land; as such, the proposed project would lead to an overall loss of Farmland. Therefore, although implementation of the following mitigation measure would reduce the above potentially significant impact, the impact would remain *significant and unavoidable*.

4.2-1 *Prior to initiation of grading activities for each phase of development at the Farmstead Subdivision Project site, the project applicant shall set aside in perpetuity, at a minimum ratio of 1:1 of active agricultural acreage, an amount equal to the current phase. The applicant may choose to set aside in perpetuity an amount equal to the remainder of the project site instead of at each phase. The agricultural land shall be located elsewhere in unincorporated Yolo County, through the purchase of development rights and execution of an irreversible conservation or agricultural easement.*

4.2-2 Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. The impact would be *less-than-significant*.

The project site is bound by an unpaved road and agricultural land currently used for row crops to the north, Timber Crest Road to the east, and State Route (SR) 128 to the south. Undeveloped land zoned for Highway Service Commercial (C-H) uses occurs to the east, across Timber Crest Road. In addition, undeveloped land zoned for Neighborhood Commercial (C-1) uses occurs to the south, across SR 128, which is also identified as East Grant Avenue. Surrounding existing uses include a light industrial use (Pearce Heating & Air Conditioning, Inc.) to the northeast, across Timber Crest Road; a single-family residence and associated outbuildings to the east, across Timber Crest Road; a Chevron fueling station and convenience store, a Fairfield Inn & Suites, and various fast-food retailers further to the east; a single-family residential

neighborhood located further to the south, across SR 128; and various commercial uses, a single-family residential neighborhood, and the Walnut Lane 10 parcel to the west. The Walnut Lane 10 parcel has been approved by the City for a 54-lot subdivision development and already includes paved neighborhood roads and utility infrastructure.

As discussed above, the properties immediately adjacent to the north of the site are currently used for agricultural production. However, the City of Winter's right-to-farm ordinance (Chapter 17.88 of the City's Municipal Code) would ensure that such agricultural uses would be protected from conflicts with non-agricultural land uses, including the proposed project. When fully operational, the proposed project would include development of a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex; three commercial lots totaling 3.3 acres; and 6.9 total acres of park uses. Development of the proposed project would not preclude the use of the parcels to the north for agricultural purposes. Rather, according to the City's right-to-farm ordinance, properly conducted agricultural operations shall not be deemed a nuisance to nearby residences. In addition, because the parcels to the east, south, and west of the project site are not currently subject to agricultural uses, and are developed, or zoned for future development, the parcels are unlikely to be used for agricultural uses in the future.

The proposed project's northern boundary would extend similar to the approved Walnut Lane 10 subdivision immediately to the west of the project site. Additionally, the project site is located within the City limits and Urban Limit Line. Pursuant to the City of Winters Municipal Services Review and Sphere of Influence Study, the City's Urban Limit Line defines the General Plan Area and the area of projected City growth. The sphere of influence included therein defines the extent of probable, logical and efficient growth for the City of Winters and includes the same physical area as the City's existing Urban Limit Line.[9] The northern portion of the Urban Limit Line is approximately 0.5-mile north of the project site, and therefore the proposed project would not further convert land designated for agricultural uses to urban uses.

Therefore, the proposed project would not involve changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural uses, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

[9] Design, Community, & Environment. *City of Winters Municipal Services Review and Sphere of Influence Study*. September 26, 2008.

Additional detail regarding the cumulative setting is included in Chapter 5, Statutorily Required Sections, of this EIR.

4.2-3 Involve changes in the existing environment which, due to their location or nature, could cumulatively result in loss of Farmland to non-agricultural use. Based on the analysis below, the cumulative impact is *cumulatively considerable* and *significant and unavoidable*.

As discussed above, the City's General Plan EIR determined that buildout of the General Plan would convert an estimated 610 acres of Prime Farmland to nonagricultural uses. The General Plan EIR noted that the conversion of prime agricultural lands to urban uses in the City of Winters is a relatively small impact, though significant when compared to the total acreage of such lands in Yolo County and the Sacramento Valley. Therefore, when combined with the similar impacts in other areas in the region, the General Plan EIR determined the conversion of Farmland would result in a substantial, cumulative impact. Even with implementation of all applicable General Plan policies, the General Plan EIR concluded that the impact would be significant and unavoidable. The City Council adopted a Statement of Overriding Considerations on May 19, 1992 (Resolution 92-13, Exhibit C) regarding the significant and unavoidable impact.

The project site consists of 52.3 acres of Prime Farmland, 4.6 acres of Farmland of Local Potential, and five acres of Other Land. While implementation of Mitigation Measure 4.2-1 would reduce impacts related to the conversion of agricultural land to non-agricultural use, the impact would not be reduced to a less-than-significant level, as the proposed project would result in a permanent conversion of Farmland. Development of the proposed project, as well as other development within the City's General Plan planning area located on lands designated as Farmland would contribute to the aforementioned cumulative impact related to the loss of Farmland identified by the City of Winters. Therefore, even with implementation of mitigation, the project's incremental contribution to the cumulative impact is ***cumulatively considerable*** and ***significant and unavoidable***.

Mitigation Measure(s)

Implementation of the following mitigation measure would help reduce the project's incremental contribution towards the cumulative impact related to conversion of important farmland. However, the impact would remain *significant and unavoidable* due to the permanent loss of agricultural land attributable to the project.

4.2-3 Implement Mitigation Measure 4.2-1.

4.3 Air Quality, Greenhouse Gas Emissions, and Energy

4.3 AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY

4.3.1 INTRODUCTION

The Air Quality, Greenhouse Gas Emissions, and Energy chapter of the EIR describes the potential impacts of the proposed project on local and regional air quality emissions, potential impacts related to greenhouse gas (GHG) emissions and climate change, and potential impacts related to energy. The chapter includes a discussion of the existing air quality, GHG, and energy setting, the existing regulatory setting, as well as potential local and regional air quality, GHG, and energy impacts resulting from construction and operation of the project. In addition, the chapter includes mitigation measures warranted to reduce or eliminate any identified significant impacts. The chapter is primarily based on information and guidance within the Yolo-Solano Air Quality Management District (YSAQMD) CEQA Guide,[1] as well as the Winters General Plan[2] the associated General Plan EIR,[3] the City of Winters Climate Action Plan (CAP),[4] and a technical analysis performed by Raney Planning and Management, Inc. (see Appendix C).

4.3.2 EXISTING ENVIRONMENTAL SETTING

The following information provides an overview of the existing environmental setting in relation to air quality within the proposed project area. Air basin characteristics, ambient air quality standards (AAQS), attainment status and regional air quality plans, local air quality monitoring, odors, and sensitive receptors are discussed. In addition to the information pertaining to air quality, information related to climate change and GHGs, as well as energy, is provided.

Air Basin Characteristics

The City of Winters is located in Yolo County, within the Yolo-Solano portion of the Sacramento Valley Air Basin (SVAB), which is under the jurisdiction of the YSAQMD. Air quality in the SVAB is largely the result of the following factors: emissions, geography, and meteorology (wind, atmospheric stability, and sunlight). The Sacramento Valley is often described as a bowl-shaped valley, with the SVAB being bounded by the North Coast Ranges on the west, the northern Sierra Nevada Mountains on the east, and the intervening terrain being flat.

The Sacramento Valley has a Mediterranean climate, characterized by hot, dry summers and mild, rainy winters. During the year, the temperature may range from 20 to 115 degrees Fahrenheit, with summer highs usually in the 90-degree Fahrenheit range and winter lows occasionally below freezing. Average annual rainfall is approximately 20 inches, with snowfall being very rare. The winds in the area are moderate in strength and vary from moist, clean breezes from the south to dry land flows from the north.[5]

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1 Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts*. July 11, 2007.
2 City of Winters. *The City of Winters General Plan Policy Document*. Adopted May 19, 1992.
3 City of Winters. *City of Winters General Plan Final Environmental Impact Report*. Certified May 1992.
4 City of Winters. *2021 Final Winters Climate Action Plan*. July 20, 2021.
5 Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts*. July 11, 2007.

The mountains surrounding the Sacramento Valley create a barrier to airflow, which can trap air pollutants in the valley when meteorological conditions are right and a temperature inversion exists. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during autumn and early winter and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in the air. The surface concentrations of pollutants are highest when these conditions are combined with smoke from agricultural burning, which is regulated through YSAQMD permits, or when temperature inversions trap cool air, fog, and pollutants near the ground.

The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds, with the Delta sea breeze arriving in the afternoon out of the southwest. Usually the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. However, during approximately half of the days from July to September, a phenomenon called the "Schultz Eddy" prevents the transport from occurring. Instead of allowing for the prevailing wind patterns to move north, carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern and pollutants to circle back southward. The Schultz Eddy effect exacerbates the pollution levels in the area and increases the likelihood of violating the federal and State air quality standards.

Ambient Air Quality Standards

Both the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established AAQS for common pollutants. The federal standards are divided into primary standards, which are designed to protect the public health, and secondary standards, which are designed to protect the public welfare. The AAQS for each contaminant represent safe levels that avoid specific adverse health effects. Pollutants for which AAQS have been established are called "criteria" pollutants. Table 4.3-1 identifies the major pollutants, characteristics, health effects and typical sources. The national and California AAQS (NAAQS and CAAQS, respectively) are summarized in Table 4.3-2. The NAAQS and CAAQS were developed independently with differing purposes and methods. As a result, the national and State standards differ in some cases. In general, the State of California standards are more stringent than the federal standards, particularly for ozone and particulate matter (PM).

A description of each criteria pollutant and its potential health effects is provided in the following section.

Ozone

Ozone is a reactive gas consisting of three oxygen atoms. In the troposphere, ozone is a product of the photochemical process involving the sun's energy, and is a secondary pollutant formed as a result of a complex chemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_X) emissions in the presence of sunlight. As such, unlike other pollutants, ozone is not released directly into the atmosphere from any sources. In the stratosphere, ozone exists naturally and shields Earth from harmful incoming ultraviolet radiation. The primary source of ozone precursors is mobile sources, including cars, trucks, buses, construction equipment, and agricultural equipment.

Table 4.3-1
Summary of Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive gas produced by the photochemical process involving a chemical reaction between the sun's energy and other pollutant emissions. Often called photochemical smog.	• Eye irritation • Wheezing, chest pain, dry throat, headache, or nausea • Aggravated respiratory disease such as emphysema, bronchitis, and asthma	Combustion sources such as factories, automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	An odorless, colorless, highly toxic gas that is formed by the incomplete combustion of fuels.	• Impairment of oxygen transport in the bloodstream • Impaired vision, reduced alertness, chest pain, and headaches • Can be fatal in the case of very high concentrations	Automobile exhaust, combustion of fuels, and combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	A reddish-brown gas that discolors the air and is formed during combustion of fossil fuels under high temperature and pressure.	• Lung irrigation and damage • Increased risk of acute and chronic respiratory disease	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Dioxide	A colorless, irritating gas with a rotten egg odor formed by combustion of sulfur-containing fossil fuels.	• Aggravation of chronic obstruction lung disease • Increased risk of acute and chronic respiratory disease	Diesel vehicle exhaust, oil-powered power plants, and industrial processes.
Particulate Matter (PM_{10} and $PM_{2.5}$)	A complex mixture of extremely small particles and liquid droplets that can easily pass through the throat and nose and enter the lungs.	• Aggravation of chronic respiratory disease • Heart and lung disease • Coughing • Bronchitis • Chronic respiratory disease in children • Irregular heartbeat • Nonfatal heart attacks	Combustion sources such as automobiles, power generation, industrial processes, and wood burning. Also from unpaved roads, farming activities, and fugitive windblown dust.
Lead	A metal found naturally in the environment as well as in manufactured products.	• Loss of appetite, weakness, apathy, and miscarriage • Lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract	Industrial sources and combustion of leaded aviation gasoline.

Sources:

- ***CARB. California Ambient Air Quality Standards (CAAQS). Available at: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed June 2024.***
- ***Sacramento Metropolitan, El Dorado, Feather River, Placer, and Yolo-Solano Air Districts, Spare the Air website. Air Quality Information for the Sacramento Region. Available at: sparetheair.com. Accessed June 2024.***
- ***CARB. Glossary of Air Pollution Terms. Available at: https://ww2.arb.ca.gov/glossary. Accessed June 2024.***

Table 4.3-2
Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone	1 Hour	0.09 ppm	-	Same as primary
	8 Hour	0.070 ppm	0.070 ppm	
Carbon Monoxide	8 Hour	9 ppm	9 ppm	-
	1 Hour	20 ppm	35 ppm	
Nitrogen Dioxide	Annual Mean	0.030 ppm	53 ppb	Same as primary
	1 Hour	0.18 ppm	100 ppb	-
Sulfur Dioxide	24 Hour	0.04 ppm	-	-
	3 Hour	-	-	0.5 ppm
	1 Hour	0.25 ppm	75 ppb	-
Respirable Particulate Matter (PM_{10})	Annual Mean	20 ug/m^3	-	Same as primary
	24 Hour	50 ug/m^3	150 ug/m^3	
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	12 ug/m^3	12 ug/m^3	15 ug/m^3
	24 Hour	-	35 ug/m^3	Same as primary
Lead	30 Day Average	1.5 ug/m^3	-	-
	Calendar Quarter	-	1.5 ug/m^3	Same as primary
Sulfates	24 Hour	25 ug/m^3	-	-
Hydrogen Sulfide	1 Hour	0.03 ppm	-	-
Vinyl Chloride	24 Hour	0.010 ppm	-	-
Visibility Reducing Particles	8 Hour	see note below	-	-

ppm = parts per million
ppb = parts per billion
µg/m^3 = micrograms per cubic meter

Note: Statewide Visibility Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Source: CARB. Ambient Air Quality Standards. May 4, 2016. Available at: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed June 2024.

Ground-level ozone reaches the highest level during the afternoon and early evening hours. High levels occur most often during the summer months. Ground-level ozone is a strong irritant that could cause constriction of the airways, forcing the respiratory system to work harder in order to provide oxygen. Ozone at the Earth's surface causes numerous adverse health effects and is a major component of smog. High concentrations of ground level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments.

Reactive Organic Gas

ROG refers to several reactive chemical gases composed of hydrocarbon compounds typically found in paints and solvents that contribute to the formation of smog and ozone by involvement in atmospheric chemical reactions. A separate health standard does not exist for ROG. However, some compounds that make up ROG are toxic, such as the carcinogen benzene.

Oxides of Nitrogen

NO_X are a family of gaseous nitrogen compounds and are precursors to the formation of ozone and particulate matter. The major component of NO_X, nitrogen dioxide (NO_2), is a reddish-brown gas that discolors the air and is toxic at high concentrations. NO_X results primarily from the combustion of fossil fuels under high temperature and pressure. On-road and off-road motor vehicles and fuel combustion are the major sources of NO_X. NO_X reacts with ROG to form smog, which could result in adverse impacts to human health, damage the environment, and cause poor visibility. Additionally, NO_X emissions are a major component of acid rain. Health effects related to NO_X include lung irritation and lung damage and can cause increased risk of acute and chronic respiratory disease.

Nitrogen Dioxide

A particular oxide of nitrogen that is of concern to human health is NO_2. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas.

A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. The strongest health evidence, and the health basis for the AAQS for NO_2, results from controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, several epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO_2 exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher compared to lower levels of exposure. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.

Carbon Monoxide

Carbon Monoxide (CO) is a colorless, odorless, poisonous gas produced by incomplete burning of carbon-based fuels such as gasoline, oil, and wood. When CO enters the body, the CO combines with chemicals in the body, which prevents blood from carrying oxygen to cells, tissues, and organs. Symptoms of exposure to CO can include problems with vision, reduced alertness, and general reduction in mental and physical functions. Exposure to CO can result in chest pain, headaches, reduced mental alertness, and death at high concentrations.

Sulfur Dioxide

Sulfur dioxide (SO_2) is a colorless, irritating gas with a rotten egg odor formed primarily by the combustion of sulfur-containing fossil fuels from mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Similar to airborne NO_X, suspended sulfur oxide particles contribute to poor visibility. The sulfur oxide particles are also a component of PM_{10}.

Particulate Matter

Particulate matter, also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health impacts. The USEPA is concerned about particles that are 10 micrometers in diameter or smaller (PM_{10}) because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, the particles could affect the heart and lungs and cause serious health effects. USEPA groups particle pollution into three categories based on their size and where they are deposited:

- "Inhalable coarse particles ($PM_{2.5-10}$)," which are found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. $PM_{2.5-10}$ is deposited in the thoracic region of the lungs.
- "Fine particles ($PM_{2.5}$)," which are found in smoke and haze, are 2.5 micrometers in diameter and smaller. $PM_{2.5}$ particles could be directly emitted from sources such as forest fires, or could form when gases emitted from power plants, industries, and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.
- “Ultrafine particles (UFP),” are very, very small particles (less than 0.1 micrometers in diameter) largely resulting from the combustion of fossil fuels, meat, wood, and other hydrocarbons. While UFP mass is a small portion of $PM_{2.5}$, their high surface area, deep lung penetration, and transfer into the bloodstream could result in disproportionate health impacts relative to their mass. UFP is not currently regulated separately, but is analyzed as part of $PM_{2.5}$.

PM_{10}, $PM_{2.5}$, and UFP include primary pollutants, which are emitted directly to the atmosphere and secondary pollutants, which are formed in the atmosphere by chemical reactions among precursors. Generally speaking, $PM_{2.5}$ and UFP are emitted by combustion sources like vehicles, power generation, industrial processes, and wood burning, while PM_{10} sources include the same sources plus roads and farming activities. Fugitive windblown dust and other area sources also represent a source of airborne dust. Long-term PM pollution, especially fine particles, could result in significant health problems including, but not limited to, the following: increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing; decreased lung function; aggravated asthma; development of chronic respiratory disease in children; development of chronic bronchitis or obstructive lung disease; irregular heartbeat; heart attacks; and increased blood pressure.

Lead

Lead is a relatively soft and chemically resistant metal that is a natural constituent of air, water, and the biosphere. Lead forms compounds with both organic and inorganic substances. As an air pollutant, lead is present in small particles. Sources of lead emissions in California include a variety of industrial activities. Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels. The use of leaded fuel has been mostly phased out, with the result that ambient concentrations of lead have dropped dramatically. However, because lead was emitted in large amounts from vehicles when leaded gasoline was used, lead is present in many soils (especially urban soils) as a result of airborne dispersion and could become re-suspended into the air.

Because lead is slowly excreted by the human body, exposures to small amounts of lead from a variety of sources could accumulate to harmful levels. Effects from inhalation of lead above the

level of the AAQS may include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms could include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children. Lead also causes cancer.

Sulfates

Sulfates are the fully oxidized ionic form of sulfur and are colorless gases. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. The sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The sulfates standard established by CARB is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide

Hydrogen sulfide (H_2S) is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. Hydrogen sulfide is extremely hazardous in high concentrations, especially in enclosed spaces (800 ppm can cause death).

Vinyl Chloride

Vinyl chloride (C_2H_3Cl, also known as VCM) is a colorless gas that does not occur naturally, but is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride (PVC) which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

Visibility Reducing Particles

Visibility reducing particles are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. The standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are also a category of environmental concern. TACs are present in many types of emissions with varying degrees of toxicity. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Common stationary sources of TACs include gasoline stations, dry cleaners, and diesel backup generators, which are subject to YSAQMD stationary source permit requirements. The other, often more significant, common source type is on-road motor vehicles, such as cars and trucks, on freeways and roads, and off-road sources such as construction equipment, ships, and trains.

Fossil fueled combustion engines, including those used in cars, trucks, and some pieces of construction equipment, release at least 40 different TACs. In terms of health risks, the most volatile contaminants are diesel particulate matter (DPM), benzene, formaldehyde, 1,3-butadiene, toluene, xylenes, and acetaldehyde. Gasoline vapors contain several TACs, including benzene, toluene, and xylenes. Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust, DPM, is composed of carbon particles and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of such chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including ROG and NO_X. Due to the published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects, the CARB has identified DPM from diesel-fueled engines as a TAC. Although a variety of TACs are emitted by fossil fueled combustion engines, the cancer risk due to DPM exposure represents a more significant risk than the other TACs discussed above.[6]

More than 90 percent of DPM is less than one micrometer in diameter, and, thus, DPM is a subset of $PM_{2.5}$. As a California statewide average, DPM comprises about eight percent of $PM_{2.5}$ in outdoor air, although DPM levels vary regionally due to the non-uniform distribution of sources throughout the State. Most major sources of diesel emissions, such as ships, trains, and trucks, operate in and around ports, rail yards, and heavily traveled roadways. Such areas are often located near highly populated areas. Thus, elevated DPM levels are mainly an urban problem, with large numbers of people exposed to higher DPM concentrations, resulting in greater health consequences compared to rural areas.

Due to the high levels of diesel activity, high volume freeways, stationary diesel engines, rail yards and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Construction-related activities also have the potential to generate concentrations of DPM from on-road haul trucks and off-road equipment exhaust emissions.

The size of diesel particulates that are of the greatest health concern are fine particles (i.e., $PM_{2.5}$) and UFPs. The small diameter of UFPs imparts the particulates with unique attributes, such as high surface areas and the ability to penetrate deeply into lungs. Once UFPs have been deposited in lungs, the small diameter allows the UFPs to be transferred to the bloodstream. The high surface area of the UFPs also allows for a greater adsorption of other chemicals, which are transported along with the UFPs into the bloodstream of the inhaler, where the chemicals can eventually reach critical organs.[7] The penetration capability of UFPs may contribute to adverse health effects related to heart, lung, and other organ health.[8] UFPs are a subset of DPM and activities that create large amounts of DPM, such as the operations involving heavy diesel-powered engines, also release UFPs. Considering that UFPs are a subset of DPM, and DPM represents a subset of $PM_{2.5}$, estimations of either concentrations or emissions of $PM_{2.5}$ or DPM include UFPs.

Health risks from TACs are a function of both the concentration of emissions and the duration of exposure, which typically are associated with long-term exposure and the associated risk of contracting cancer. Health effects of exposure to TACs other than cancer can include birth

6 California Air Resources Board. *Reducing Toxic Air Pollutants in California's Communities*. February 6, 2002.
7 Health Effects Institute. *Understanding the Health Effects of Ambient Ultrafine Particles*. January 2013.
8 South Coast Air Quality Management District. *Final 2012 Air Quality Management Plan*. December 2012.

defects, neurological damage, and death. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to criteria air pollutants that have established AAQS. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an AAQS or emission-based threshold.

Naturally Occurring Asbestos

Another concern related to air quality is naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs). Because asbestos is a known carcinogen, NOA is considered a TAC. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock; construction activities in ultramafic rock deposits; or rock quarrying activities where ultramafic rock is present.

According to mapping prepared by the California Geological Survey, Yolo County is not in an area likely to contain NOA.[9] In addition, the project site is not located in an area containing ultramafic rock. For the aforementioned reasons, NOA is not expected to be present at the project site.

Attainment Status and Regional Air Quality Plans

The Federal Clean Air Act (FCAA) and the California Clean Air Act (CCAA) require all areas of California to be classified as attainment, nonattainment, or unclassified as to their status with regard to the NAAQS and/or CAAQS. Areas not meeting the NAAQS presented in Table 4.3-2, above, are designated by the USEPA as nonattainment. Further classifications of nonattainment areas are based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious. Because of the differences between the national and State standards, the designation of nonattainment areas is different under the federal and State legislation. The FCAA requires areas violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures for states to use to attain the NAAQS. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA reviews SIPs to determine if they conform to the mandates of the FCAA amendments and would achieve air quality goals when implemented.

The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the CCAA. The CCAA classifies ozone nonattainment areas as moderate, serious, severe, and extreme based on severity of violations of CAAQS. The CCAA requires local air pollution control districts with air quality that is in violation of CAAQS to prepare air quality attainment plans that demonstrate district-wide emission reductions of five percent per year averaged over consecutive three-year periods, unless an approved alternative measure of progress is developed.

[9] California Department of Conservation, Division of Mines and Geology. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos*. August 2000.

Table 4.3-3 below presents the current attainment status of the jurisdictional area of the YSAQMD, including Yolo County. As shown in the table, Yolo County is in an area designated as attainment for all State and federal AAQS, with the exception of ozone, PM_{10}, and $PM_{2.5}$. At the federal level, the area is designated as severe nonattainment for the 8-hour ozone standard, nonattainment for the 24-hour $PM_{2.5}$ standard, and attainment or unclassified for all other criteria pollutants. At the State level, the area is designated as a nonattainment area for the 1-hour ozone standard, nonattainment for the 8-hour ozone standard, nonattainment for the PM_{10} and $PM_{2.5}$ standards, and attainment or unclassified for all other State standards. Although the 1-hour federal ozone standard has been revoked, on October 18, 2012, the USEPA officially determined that the Sacramento Federal Nonattainment Area (SFNA), which includes Sacramento and Yolo counties, Placer and El Dorado counties (except Lake Tahoe Basin portions), Solano County (eastern portion), and Sutter County (southern portion), attained the revoked 1-hour ozone NAAQS. The determination became effective November 19, 2012.

Table 4.3-3
Attainment Status

Pollutant	Designation/Classification	
	Federal Standards	**State Standards**
Ozone – 1-Hour	Revoked in 2005	**Nonattainment**
Ozone – 8-Hour	**Nonattainment**	**Nonattainment**
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
PM_{10} – 24-Hour	Unclassified	**Nonattainment**
PM_{10} – Annual	--	**Nonattainment**
$PM_{2.5}$ – 24-Hour	**Nonattainment**	--
$PM_{2.5}$ – Annual	Unclassified	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Unclassified

Source: YSAQMD. Attainment Status. Available at: https://www.ysaqmd.org/plans-data/attainment/. Accessed June 2024.

In compliance with the FCAA and CCAA, due to the nonattainment designations, the YSAQMD, along with the other air districts in the SVAB region, is required to develop plans to attain the federal and State standards for ozone and PM. The air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control measures have worked, and show how air pollution would be reduced. In addition, the plans include the estimated future levels of pollution to ensure that the area would meet air quality goals. Each of the attainment plans currently in effect are discussed in further detail in the Regulatory Context discussion of this chapter.

Local Air Quality Monitoring

Air quality is monitored by CARB at various locations to determine which air quality standards are being violated, and to direct emission reduction efforts, such as developing attainment plans and rules, incentive programs, etc. The nearest local air quality monitoring station to the project site is the U.C. Davis Station, located along Campbell Road between Hutchinson Drive and Garrod Road in Davis, approximately 10 miles east of the project site. Data for PM_{10} was not available

for the U.C. Davis monitoring site; thus, such data was obtained from the next nearest site, the Vacaville-Marchant Street monitoring site, located approximately 12.5 miles south of the project site at 650 Merchant Street in the City of Vacaville. Table 4.3-4 shows historical occurrences of pollutant levels exceeding the State and federal AAQS for the three-year period from 2020 to 2022.

Table 4.3-4
Air Quality Data Summary (2020-2022)

Pollutant	Standard	Days Standard Was Exceeded		
		2020	2021	2022
1-Hour Ozone	State	0	0	0
	Federal	0	0	0
8-Hour Ozone	State	0	3	1
	Federal	0	2	1
24-Hour $PM_{2.5}$	Federal	*	*	*
24-Hour PM_{10}	State	*	*	0
	Federal	*	0	0
1-Hour Nitrogen Dioxide	State	0	0	0
	Federal	0	0	0

Note: * indicates that sufficient data was not available to determine the value.

Source: California Air Resources Board. Aerometric Data Analysis and Management (iADAM) System. Available at http://www.arb.ca.gov/adam/welcome.html. Accessed June 2024.

Odors

While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable annoyance and distress among the public and can generate citizen complaints to local governments and air districts. Adverse effects of odors on residential areas and other sensitive receptors warrant the closest scrutiny; but consideration is also be given to other land use types where people congregate, such as recreational facilities, worksites, and commercial areas. The potential for an odor impact is dependent on a number of variables including the nature of the odor source, distance between a receptor and an odor source, and local meteorological conditions.

One of the most important factors influencing the potential for an odor impact to occur is the distance between the odor source and receptors, also referred to as a buffer zone or setback. The greater the distance between an odor source and receptor, the less concentrated the odor emission would be when reaching the receptor.

Meteorological conditions also affect the dispersion of odor emissions, which determines the exposure concentration of odiferous compounds at receptors. The predominant wind direction in an area influences which receptors are exposed to the odiferous compounds generated by a nearby source. Receptors located upwind from a large odor source may not be affected due to the produced odiferous compounds being dispersed away from the receptors. Wind speed also influences the degree to which odor emissions are dispersed away from any area.

Odiferous compounds could be generated from a variety of source types including both construction and operational activities. Examples of common land use types that typically generate significant odor impacts include, but are not limited to, wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, petroleum refineries,

chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging plants. The project site is not located near any of the aforementioned odor-generating uses.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. A residential subdivision exists directly to the west of the project site. The closest residences are located approximately 50 feet west of the project site. The remaining surrounding areas include primarily vacant farmland, undeveloped land, and commercial and industrial uses.

Greenhouse Gas Emissions

GHGs are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the Earth's atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through both natural processes and human activities. Other GHGs are created and emitted solely through human activities. The principal GHGs that enter the atmosphere due to human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated carbons. Other common GHGs include water vapor, ozone, and aerosols. The increase in atmospheric concentrations of GHG due to human activities has resulted in more heat being held within the atmosphere, which is the accepted explanation for global climate change.

The primary GHG emitted by human activities is CO_2, with the next largest components being CH_4 and N_2O. A wide variety of human activities result in the emission of CO_2. Some of the largest sources of CO_2 include the burning of fossil fuels for transportation and electricity, industrial processes including fertilizer production, agricultural processing, and cement production. The primary sources of CH_4 emissions include domestic livestock sources, decomposition of wastes in landfills, releases from natural gas systems, coal mine seepage, and manure management. The main human activities producing N_2O are agricultural soil management, fuel combustion in motor vehicles, nitric acid production, manure management, and stationary fuel combustion. Emissions of GHG by economic sector indicate that transportation-related activities account for the majority of U.S. emissions. Transportation is the largest single-source of GHG emissions, and electricity generation is the second largest source, followed by industrial activities. The agricultural, commercial, and residential sectors account for the remainder of GHG emission sources.[10]

Emissions of GHG are partially offset by uptake of carbon and sequestration in trees, agricultural soils, landfilled yard trimmings and food scraps, and absorption of CO_2 by the Earth's oceans. Additional emission reduction measures for GHG could include, but are not limited to, compliance with local, State, or federal plans or strategies for GHG reductions, on-site and off-site mitigation, and project design features. Attainment concentration standards for GHGs have not been established by the federal or State government. The project site currently serves as an undeveloped agricultural field used for annual row crops. Therefore, emissions of GHG are partially offset by uptake of carbon associated with the agricultural biomass and soils on-site.

[10] U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions.* Available at: https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions. Accessed June 2024.

Global Warming Potential

Global warming potential (GWP) is one type of simplified index (based upon radiative properties) that can be used to estimate the potential future impacts of emissions of various gases. According to the USEPA, the GWP of a gas, or aerosol, to trap heat in the atmosphere is the "cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas." The reference gas for comparison is CO_2. GWP is based on a number of factors, including the heat-absorbing ability of each gas relative to that of CO_2, as well as the decay rate of each gas relative to that of CO_2. Each gas's GWP is determined by comparing the radiative forcing associated with emissions of that gas versus the radiative forcing associated with emissions of the same mass of CO_2, for which the GWP is set at one. Methane gas, for example, is estimated by the USEPA to have a comparative global warming potential 25 times greater than that of CO_2, as shown in Table 4.3-5

Table 4.3-5
GWPs and Atmospheric Lifetimes of Select GHGs

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)
Carbon Dioxide (CO_2)	See footnote[1]	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

[1] For a given amount of CO_2 emitted, some fraction of the atmospheric increase in concentration is quickly absorbed by the oceans and terrestrial vegetation, some fraction of the atmospheric increase will only slowly decrease over a number of years, and a small portion of the increase will remain for many centuries or more.

Source: USEPA. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019 [Table 1-2]. April 14, 2021.

As shown in the table, at the extreme end of the scale, sulfur hexafluoride is estimated to have a comparative GWP 22,800 times that of CO_2. The atmospheric lifetimes of such GHGs are estimated by the USEPA to vary from 50 to 200 years for CO_2, to 50,000 years for CF_4. Longer atmospheric lifetimes allow GHG to buildup in the atmosphere; therefore, longer lifetimes correlate with the GWP of a gas. The common indicator for GHG is expressed in terms of metric tons of CO_2 equivalents ($MTCO_2e$), which is calculated based on the GWP for each pollutant.

Effects of Global Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The Intergovernmental Panel on Climate Change's (IPCC) Climate Change 2021: The Physical Science Basis report indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia.[11]

[11] Intergovernmental Panel on Climate Change. *Climate Change 2021: The Physical Science Basis Summary for Policymakers*. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf. Accessed June 2024.

Signs that global climate change has occurred include:

- Warming of the atmosphere and ocean;
- Diminished amounts of snow and ice;
- Rising sea levels; and
- Ocean acidification.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment (OEHHA) identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernable evidence that climate change is occurring in California and is having significant, measurable impacts in the State. Changes in the State's climate have been observed, including:

- An increase in annual average air temperature with record warmth in recent years;
- More frequent extreme heat events;
- More extreme drought;
- A decline in winter chill; and
- An increase in variability of statewide precipitation.

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers and snowpack—upon which the State depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the State's annual water supply. Impacts of climate on physical systems have been observed, such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters. Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed, including climate change impacts on terrestrial, marine, and freshwater ecosystems. However, it should be noted that the effects of climate change are not fully understood. For example, due to a series of atmospheric rivers that occurred throughout the 2022-2023 winter season, California saw the most snow the State has seen since the record was set in the 1982-1983 winter season. The California Department of Water Resources (DWR) has noted that the snowpack in the Sierra was 205 percent of the average in February 2023,[12] 190 percent of the average for March 2023,[13] 237 percent of the average for April 2023,[14] and 254 percent of the average for May of 2023.[15]

[12] California Department of Water Resources. *Second Snow Survey Reflects Boost from Atmospheric Rivers.* Available at: https://water.ca.gov/News/News-Releases/2023/Feb-23/Second-Snow-Survey-Reflects-Boost-from-Atmospheric-Rivers. Accessed June 2024.

[13] California Department of Water Resources. *California's Snowpack Shows Huge Gains from Recent Storms.* Available at: https://water.ca.gov/News/News-Releases/2023/March-23/March-2023-Snow-Survey. Accessed June 2024.

[14] California Department of Water Resources. *California's Snowpack is Now One of the Largest Ever, Bringing Drought Relief, Flooding Concerns.* Available at: https://water.ca.gov/News/News-Releases/2023/April-23/Snow-Survey-April-2023. Accessed June 2024.

[15] California Department of Water Resources. *DWR Conducts May 1 Snow Survey to Continue to Collect Data on Spring Runoff.* Available at: https://water.ca.gov/News/News-Releases/2023/May-2023/May-2023-Snow-Survey. Accessed June 2024.

In the City of Winters, specifically, the number of extreme heat days (defined as days where temperatures exceed 105.6 F) could reach an average of 48 days per year, as compared to the four days per year that occur now. While California could not see the average annual precipitation changing significantly in the next 50 to 75 years, precipitation could likely be delivered in more intense storms and within a shorter wet season. For example, the 30-year average length of dry spell in the City is 120 days. By the end of the century, the average dry spell could be up to 135 days.[16]

According to the City of Winters CAP, the City is most susceptible to climate hazards such as wildfire, flooding, and drought caused by climate change. Such climate hazards can result in direct impacts to the residents of the City including property loss and damage, power outages, water shortages, increased utility rates, and school/business disruptions.

Energy

California is one of the highest energy demanding states within the nation. According to the U.S. Department of Energy, the State consumes approximately 303,300 gigawatt-hours (GWh) of electricity per year.[17] Activities such as heating and cooling structures, lighting, the movement of goods, agricultural production, and other facets of daily life consume a variety of energy sources. However, despite California's high rate of energy use, the State has one of the lowest per capita energy consumption levels in the U.S.

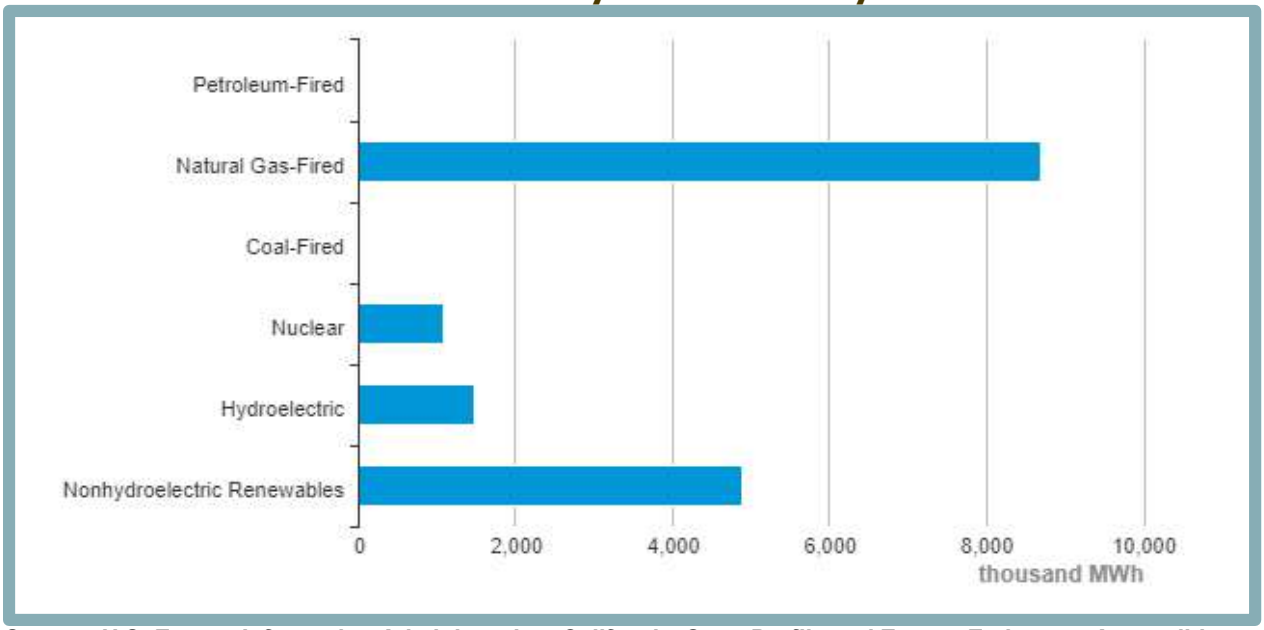
In 2022, California was the fourth-largest electricity producer in the nation. Energy within the State is provided primarily to consumers through a mix of sources including natural gas, hydroelectric, non-hydroelectric renewable sources, nuclear, coal, and petroleum. California is the nation's top producer of electricity from solar, geothermal, and biomass energy. Renewable resources, including hydroelectric power and small-scale (less than 1-megawatt [MW]), customer-sited solar photovoltaic (PV) systems, accounted for 49 percent of California's in-state electricity generation; natural gas-fired power plants fueled another 42 percent of the State's energy generation; and nuclear power supplied almost all the rest.

Figure 4.3-1 presents the sources that are used to produce electricity in the State. As presented therein, energy is mostly generated from natural gas combustion, followed by non-hydroelectric renewables (such as wind and solar) and hydroelectric. Figure 4.3-2 presents energy consumption within California for the most recent year for which data is available (2021). As shown in the figure, transportation-related activity consumes the largest single share of energy within the State. The second largest consumer is the industrial sector, followed closely by the residential and commercial sectors.

Of the total electricity supplied to the State in 2022 (the most recent year for which data is available), Yolo County consumed approximately 1,797 GWh, which constitutes approximately 0.6 percent of the total energy consumed within the State.[18]

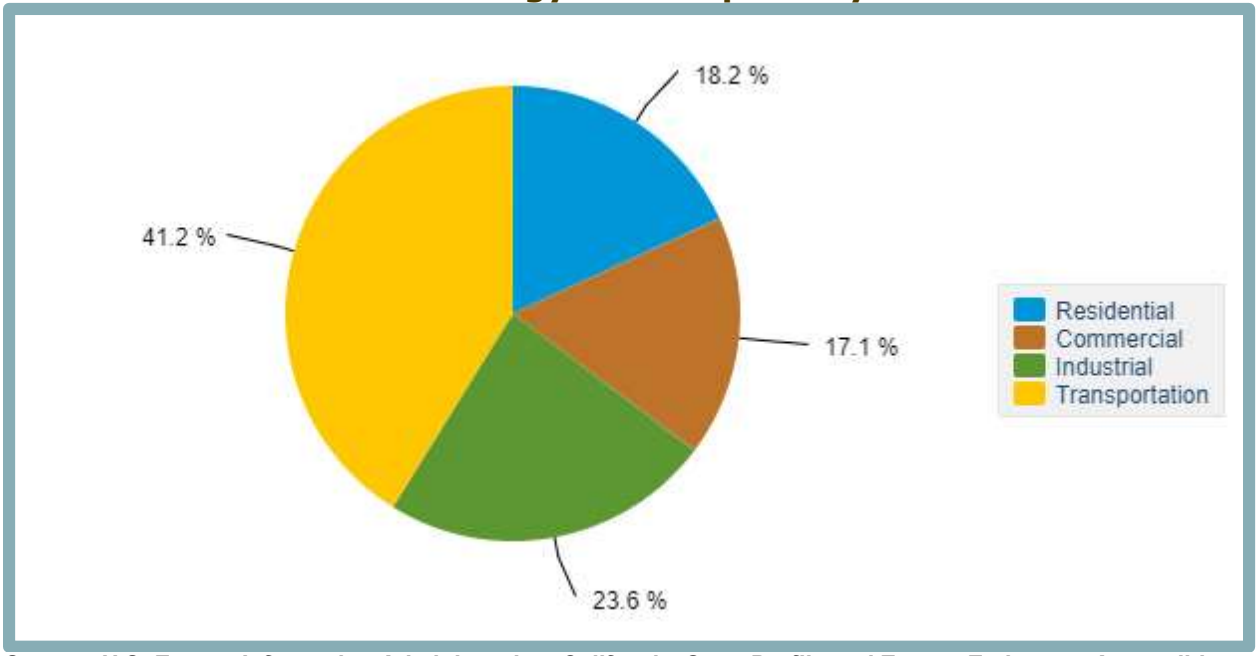
[16] Cal-Adapt. *Local Climate Change Snapshot for Winters, California*. Available at: https://cal-adapt.org/tools/local-climate-change-snapshot/. Accessed June 2024.
[17] U.S. Department of Energy. *State of California Energy Sector Risk Profile.* March 2021.
[18] California Energy Commission. *Electricity Consumption by County*. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed June 2024.

Figure 4.3-1
California Electricity Generation by Source



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed June 2024.

Figure 4.3-2
California Energy Consumption by Sector



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed June 2024.

Energy Consumption at the Project Site

Historically, electricity and natural gas have been supplied to the City of Winters by PG&E. However, beginning in January 2021, Valley Clean Energy (VCE) started serving the electricity needs of the City of Winters, in addition to the cities of Woodland and Davis, as well as unincorporated areas of Yolo County, which began receiving service in June 2018. Customers within the participating areas have the opportunity to continue receiving service from PG&E or to receive energy procured by VCE. VCE plans to provide energy with a higher renewable content and lower associated GHG emissions than PG&E. While VCE supplies the energy for customers enrolled in the VCE program, VCE electricity is transmitted through PG&E-owned-and-operated distribution and power lines. PG&E will continue to provide natural gas supplies to the City.

The project site currently serves as an undeveloped agricultural field used for annual row crops. As such, existing energy use associated with the project site would be limited to land maintenance and harvesting, which would involve the use of electric or gas-powered equipment.

Public Safety Power Shutoffs

In an effort to prevent fires, PG&E initiated public safety power shutoffs (PSPS) in 2019, which may continue in subsequent years until fire risks associated with power lines are decreased. PSPS events involve PG&E turning off electrical service during times when the weather is predicted to have a heightened fire risk from gusty winds and dry conditions. Dependent on the fire risks, the power outage events may occur in specific areas or for all PG&E customers across the County. Based on the project site's location, the site is not located within an area that is more likely to be affected by a PSPS event.[19]

4.3.3 REGULATORY CONTEXT

Air quality, GHG emissions, and energy consumption are monitored and regulated through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and individually to improve air quality through legislation, regulations, planning, policymaking, education, and a variety of programs. The agencies responsible for regulating and improving the air quality within the project area and monitoring or reducing GHG emissions and energy consumption are discussed below.

Federal Regulations Related to Air Quality

The following discussion provides a summary of the federal regulations relevant to air quality, organized by pollutant type.

Criteria Pollutants

The FCAA, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The USEPA is responsible for implementing most aspects of the FCAA, including setting NAAQS for major air pollutants; setting hazardous air pollutant standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric ozone protection measures, and enforcement provisions. Under the FCAA, NAAQS are established for the following criteria pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

[19] Pacific Gas & Electric Co. *Interactive PSPS Planning Map.* Available at: https://vizmap.ss.pge.com/?_ga=2.94997403.624386528.1664230975-1068345172.1664230975. Accessed June 2024.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The FCAA requires the USEPA to reassess the NAAQS at least every five years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants/Toxic Air Contaminants

The 1977 FCAA amendments required the USEPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. Hazardous air pollutants include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 FCAA Amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

Federal Regulations Related to GHG Emissions

The following are the federal regulations relevant to GHG emissions.

Federal Vehicle Standards

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, USEPA, and National Highway Traffic Safety Administration (NHTSA) to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards were projected to achieve emission rates as low as 163 grams of CO_2 per mile by model year 2025 on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if the foregoing emissions level was achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021 (77 FR 62624–63200), and NHTSA intended to set standards for model years 2022 through 2025 in future rulemaking.

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program would have applied to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types of sizes of buses and work trucks. The final standards were expected to lower CO_2 emissions by approximately 1.1 billion MT, and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.

In August 2018, the USEPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new, less-stringent standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards that were previously in place, the 2018 proposal would increase U.S. fuel consumption by approximately 0.5 million barrels per day, and would impact the global climate by 3/1000th of one degree Celsius by 2100. California and other states stated their intent to challenge federal actions that would

delay or eliminate GHG reduction measures, and committed to cooperating with other countries to implement global climate change initiatives.

On September 27, 2019, the USEPA and NHTSA published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program (84 FR 51,310), which became effective November 26, 2019. The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission-vehicle mandates in California. On March 31, 2020, the USEPA and NHTSA issued the Part Two Rule, which sets CO_2 emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. On January 20, 2021, an Executive Order (EO) was issued on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, which includes review of the Part One Rule by April 2021 and review of the Part Two Rule by July 2021. In response to the Part One Rule, in December 2021, the U.S. Department of Transportation withdrew its portions of the "SAFE I" rule. As a result, states are now allowed to issue their own GHG emissions standards and zero-emissions vehicle mandates.[20] In addition, the Part Two Rule was adopted to revise the existing national GHG emission standards for passenger cars and light trucks through model year 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and will result in avoiding more than three billion tons of GHG emissions through 2050.[21]

Federal Regulations Related to Energy

The following are the federal regulations relevant to energy.

Energy Policy and Conservation Act

The Energy Policy and Conservation Act was originally enacted in 1975 with the intention of ensuring that all vehicles sold in the U.S. meet established fuel economy standards. Following congressional establishment of the original set of fuel economy standards the U.S. Department of Transportation was tasked with establishing additional on-road vehicle standards and making revisions to standards as necessary. Compliance with established standards is based on manufacturer fleet average fuel economy, which originally applied to both passenger cars and light trucks but did not apply to heavy-duty vehicles exceeding 8,500 pounds in gross vehicle weight. The fuel economy program implemented under the Energy Policy and Conservation Act is known as the Corporate Average Fuel Economy (CAFE) Standards. Updates to the CAFE standards since original implementation have increased fuel economy requirements and begun regulation of medium- and heavy-duty vehicles.

Energy Policy Act of 2005

The Energy Policy Act of 2005 addressed energy production in the U.S. from various sources. In particular, the Energy Policy Act of 2005 included tax credits, loans, and grants for the implementation of energy systems that would reduce GHG emissions related to energy production.

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[20] National Highway Traffic Safety Administration. *In Removing Major Roadblock to State Action on Emissions Standards, U.S. Department of Transportation Advances Biden-Harris Administration's Climate and Jobs Goals.* Available at: https://www.nhtsa.gov/press-releases/cafe-preemption-final-rule. Accessed June 2024.

[21] U.S. Environmental Protection Agency. *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed June 2024.

State Regulations Related to Air Quality

The following discussion summarizes applicable State regulations related to air quality, organized by pollutant type. Only the most prominent and applicable California air quality-related legislation is included below; however, an exhaustive list and extensive details of California air quality legislation can be found at the CARB website (http://www.arb.ca.gov/html/lawsregs.htm).

Criteria Air Pollutants

The FCAA delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the CCAA of 1988, responding to the FCAA, and regulating emissions from motor vehicles and consumer products.

CARB has established CAAQS, which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and do not violate the standards more than once each year. The CAAQS for ozone, CO, SO_2 (one-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.3-2.

Hazardous Air Pollutants/Toxic Air Contaminants

The State Air Toxics Program was established in 1983 under Assembly Bill (AB) 1807 (Tanner), and involved definition of a list of TACs. The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. The State list of TACs includes the federally-designated hazardous air pollutants. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hot spots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over five years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and, if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

CARB Air Quality and Land Use Handbook

CARB's Air Quality and Land Use Handbook: A Community Health Perspective (CARB Handbook) addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, in the vicinity of intensive air pollutant emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities.[22] The CARB Handbook draws upon studies evaluating the health effects of traffic traveling on major interstate highways in metropolitan California centers within Los Angeles (Interstate-405 and Interstate-710), the San

[22] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

Francisco Bay, and San Diego areas. The recommendations identified by CARB, including siting residential uses a minimum distance of 500 feet from freeways or other high-traffic roadways, are consistent with those adopted by the State of California for location of new schools. Specifically, the CARB Handbook recommends, "Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day".[23]

Importantly, the Introduction chapter of the CARB Handbook clarifies that the guidelines are strictly advisory, recognizing that: "[l]and use decisions are a local government responsibility. The Air Resources Board Handbook is advisory and these recommendations do not establish regulatory standards of any kind." CARB recognizes that there may be land use objectives as well as meteorological and other site-specific conditions that need to be considered by a governmental jurisdiction relative to the general recommended setbacks, specifically stating, "[t]hese recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues".[24]

Diesel Particulate Matter

In 2000, CARB approved a comprehensive diesel risk reduction plan to reduce diesel emissions, including DPM, from new and existing diesel-fueled vehicles and engines. The regulation was anticipated to result in an 80 percent decrease in statewide diesel health risk by 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. The aforementioned regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. Several Airborne Toxic Control Measures (ATCMs) exist that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 California Code of Regulations [CCR] 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

Heavy-Duty Diesel Truck and Bus Regulation

CARB adopted the final Heavy-Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 31, 2014, to reduce DPM and NO_X emissions from heavy-duty diesel vehicles. The rule requires nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an ATCM to limit idling of diesel-fueled commercial vehicles on December 12, 2013. The rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than five minutes at any location (13 CCR 2485).

California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person must not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. Section 41700 also applies to sources of objectionable odors.

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[23] *Ibid.*
[24] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

Heavy-Duty Vehicle Idling Emission Reduction Program

On October 20, 2005, CARB approved a regulatory measure to reduce emissions of toxics and criteria pollutants by limiting idling of new and in-use sleeper berth equipped diesel trucks.[25] The regulation established new engine and in-use truck requirements and emission performance requirements for technologies used as alternatives to idling the truck's main engine. For example, the regulation requires 2008 and newer model year heavy-duty diesel engines to be equipped with a non-programmable engine shutdown system that automatically shuts down the engine after five minutes of idling, or optionally meet a stringent NO_X emission standard. The regulation also requires operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engine when idling more than five minutes at any location within California. Emission producing alternative technologies such as diesel-fueled auxiliary power systems and fuel-fired heaters are also required to meet emission performance requirements that ensure emissions are not exceeding the emissions of a truck engine operating at idle.

In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO_X emissions from in-use (existing), off-road, heavy-duty diesel vehicles in California.[26] Such vehicles are used in construction, mining, and industrial operations. The regulation is designed to reduce harmful emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The idling limits require operators of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to less than five minutes. The idling requirements are specified in Title 13 of the CCR. All fleets are currently prohibited from adding Tier 0, Tier 1, or Tier 2 vehicles to the fleet. In addition, starting January 1, 2024, fleets with a total horsepower over 2,501, excluding non-profit training centers, may not add any Tier 3 or Tier 4 Interim vehicles.[27]

State Regulations Related to GHG Emissions

The statewide GHG emissions regulatory framework is summarized below. The following text describes EOs, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues. The following discussion does not include an exhaustive list of applicable regulations; rather, only the most prominent and applicable California legislation related to GHG emissions and climate change is included below.

State Climate Change Targets

California has taken a number of actions to address climate change, including EOs, legislation, and CARB plans and requirements, which are summarized below.

Executive Order S-3-05

EO S-3-05 (June 2005) established California's GHG emissions reduction targets and laid out responsibilities among the State agencies for implementing the EO and for reporting on progress toward the targets. The EO established the following targets:

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25 California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. October 24, 2013. Available at: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling. Accessed June 2024.

26 California Air Resources Board. *In-Use Off-Road Diesel Vehicle Regulation*. December 10, 2014. Available at: http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm. Accessed June 2024.

27 California Air Resources Board. *Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation.* August 29, 2023.

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

EO S-3-05 also directed the California Environmental Protection Agency (CalEPA) to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team was formed, which subsequently issues yearly GHG reduction report cards to track the progress of emission reduction strategies. Each report card documents the effectiveness of measures to reduce GHG in California, presents GHG emissions from State agencies' operations, and shows reductions that have occurred in the two years prior to publication.

Assembly Bill 32

In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32 (Núñez and Pavley). The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive, multi-year program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the State's long-range climate objectives. AB 32 also required that the CARB prepare a "scoping plan" for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020. The CARB's Scoping Plan is described in further detail below.

Executive Order B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in EO S-3-05. To facilitate achieving this goal, EO B-30-15 called for an update to the CARB's Climate Change Scoping Plan: A Framework for Change (Scoping Plan) to express the 2030 target in terms of million metric tons (MMT) CO_2e. The CARB's Scoping Plan is discussed in further detail below. The EO also called for State agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

Senate Bill 32 and Assembly Bill 197

Senate Bill (SB) 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the State's climate policies. AB 197 also added two members of the Legislature to the Board as non-voting members; requires CARB to make available and update (at least annually via the CARB's website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

CARB's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code Section 38561[a]), and to update the Scoping Plan at least once every five years.

In 2008, CARB approved the first Scoping Plan. The Scoping Plan included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives. The key elements of the Scoping Plan include the following:

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
2. Achieving a statewide renewable energy mix of 33 percent;
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions;
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
5. Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS) (17 CCR, Section 95480 et seq.); and
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15 percent from 2008 levels by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the State's GHG emission reduction priorities for the next five years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuation of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050, including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the State's 1990 emissions level using more recent GWPs identified by the IPCC, from 427 MMT CO_2e to 431 MMT CO_2e.

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40 percent below 1990 levels by 2030 to keep California on a trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050, as set forth in EO S-3-05. In summer 2016, the Legislature affirmed the importance of addressing climate change through passage of SB 32 (Pavley, Chapter 249, Statutes of 2016).

In December 2017, the Scoping Plan was once again updated. The 2017 Scoping Plan built upon the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that would serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the State's climate change priorities to 2030 and beyond. For local governments, the 2017 Scoping Plan replaced the initial Scoping Plan's 15 percent reduction goal with a recommendation to aim for a communitywide goal of no more than six $MTCO_2e$ per capita by 2030, and no more than two $MTCO_2e$ per capita by 2050, which are consistent with the State's long-term goals. The 2017 Scoping Plan recognized the benefits of local government GHG planning (e.g., through CAPs) and provided more information regarding tools to support those efforts. The 2017 Scoping Plan also recognized the CEQA streamlining provisions for project-level review where a legally adequate CAP exists.

When discussing project-level GHG emissions reduction actions and thresholds in the context of CEQA, the 2017 Scoping Plan stated that "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development" for project-level CEQA analysis, but also recognized that such a standard may not be appropriate or feasible for every development project. The 2017 Scoping Plan further provided that "the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."

The most recent update to the Scoping Plan, the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan Update) was adopted by the CARB in December 2022.[28] The 2022 Scoping Plan Update builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. The 2022 Scoping Plan Update, the most comprehensive and far-reaching Scoping Plan developed to date, identifies a technologically feasible and cost-effective path to achieve carbon neutrality by 2045 while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan. The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The relatively longer path assessed in the Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts to reduce GHGs and air pollution, while identifying new clean technologies and energy. Given the focus on carbon neutrality, the Scoping Plan also includes discussion for the first time of the Natural and Working Lands (NWL) sectors as both sources of emissions and carbon sinks.

The 2022 Scoping Plan Update lays out a path to achieve targets for carbon neutrality and reduce GHG emissions by 85 percent below 1990 levels by 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

CARB's Regulations for the Mandatory Reporting of GHG Emissions

CARB's Regulation for the Mandatory Reporting of GHG Emissions (17 CCR 95100–95157) incorporated by reference certain requirements that the USEPA promulgated in its Final Rule on Mandatory Reporting of GHGs (40 Code of Federal Regulations [CFR] Part 98). In general,

[28] California Air Resources Board. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022.

entities subject to the Mandatory Reporting Regulation that emit more than 10,000 $MTCO_2e$ per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 $MTCO_2e$ per year threshold are required to have their GHG emission report verified by a CARB-accredited third party.

Senate Bill 1383

SB 1383 establishes specific targets for the reduction of short-lived climate pollutants (SLCPs) (40 percent below 2013 levels by 2030 for CH_4 and hydrofluorocarbons (HFCs), and 50 percent below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, CARB adopted its SLCP Reduction Strategy in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, CH_4, and fluorinated gases.

Executive Order B-55-18/Assembly Bill 1279

EO B-55-18 (September 2018) establishes a statewide policy for California to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net-negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the State's GHG emissions. CARB intends to work with relevant State agencies to ensure that future scoping plan updates identify and recommend measures to achieve the carbon neutrality goal. On September 16, 2022, AB 1279, also known as the California Climate Crisis Act, codified the carbon neutrality goal established by EO B-55-18.

Mobile Sources

The following regulations relate to the control of GHG emissions from mobile sources. Mobile sources include both on-road vehicles and off-road equipment.

Assembly Bill 1493

AB 1493 (Pavley) (July 2002) was enacted in response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the State board to be vehicles that are primarily used for non-commercial personal transportation in the State. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards would result in a reduction of approximately 22 percent of GHG emissions compared to the emissions from the 2002 fleet, and the mid-term (2013–2016) standards would result in a reduction of approximately 30 percent.

Senate Bill 375

SB 375 (Steinberg) (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, and to update those targets every eight years. SB 375 requires the State's 18 regional metropolitan planning organizations to prepare a sustainable communities strategy as part of their Regional Transportation Plans that will achieve the GHG reduction targets set by CARB. If a metropolitan planning organization is unable to devise a sustainable communities strategy to achieve the GHG reduction target, the metropolitan planning organization must prepare an alternative planning strategy demonstrating how the GHG reduction target would be achieved

through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to California Government Code Section 65080(b)(2)(K), a sustainable communities strategy does not (1) regulate the use of land, (2) supersede the land use authority of cities and counties, or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with the sustainable community strategy. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the State-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. By 2025, implementation of the rule is anticipated to reduce emissions of smog-forming pollution from cars by 75 percent compared to the average new car sold in 2015. To reduce GHG emissions, CARB, in conjunction with the USEPA and NHTSA, adopted GHG standards for model year 2017 to 2025 vehicles; the standards were estimated to reduce GHG emissions by 34 percent by 2025. The zero-emissions vehicle program acts as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of zero-emissions vehicles and plug-in hybrid electric vehicles (EVs) in the 2018 to 2025 model years.

Executive Order B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, California Energy Commission (CEC), California Public Utilities Commission (CPUC), and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

Assembly Bill 1236

AB 1236 (October 2015) (Chiu) required a city, county, or city and county to approve an application for the installation of EV charging stations, as defined, through the issuance of specified permits unless the city or county makes specified written findings based on substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and a feasible method to satisfactorily mitigate or avoid the specific, adverse impact does not exist. The bill provided for appeal of that decision to the planning commission, as specified. AB 1236 required electric-vehicle charging stations to meet specified standards. The bill required a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that created an expedited and streamlined permitting process for EV charging stations. The bill also required a city, county, or

city and county with a population of less than 200,000 residents to adopt the ordinance by September 30, 2017.

Water

The following regulations relate to the conservation of water, which reduces GHG emissions related to electricity demands from the treatment and transportation of water.

Executive Order B-29-15

In response to a drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives subsequently became permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the State. In response to EO B-29-15, the California DWR modified and adopted a revised version of the Model Water Efficient Landscape Ordinance (MWELO) that, among other changes, significantly increases the requirements for landscape water use efficiency, and broadens the applicability of the ordinance to include new development projects with smaller landscape areas.

Solid Waste

The following regulations relate to the generation of solid waste and means to reduce GHG emissions from solid waste produced within the State.

Assembly Bill 939 and Assembly Bill 341

In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code [PRC] Sections 40000 et seq.), was passed because of the observed increase in waste stream and the decrease in landfill capacity.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that the policy goal of the State is that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery to develop strategies to achieve the State's policy goal.

Other State Actions

The following State regulations are broadly related to GHG emissions.

Senate Bill 97

SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research (OPR) to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor's OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities. The advisory further recommended that the lead agency determine the significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The California Natural Resource Agency (CNRA) adopted the CEQA Guidelines amendments in December 2009, and the amended CEQA Guidelines became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis, or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply the lead agency's own thresholds of significance or those developed by other agencies or experts. CNRA acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions.

With respect to GHG emissions, the CEQA Guidelines state that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions (14 CCR 15064.4[a]). The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance-based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

Executive Order S-13-08

EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs State agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009, and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014. To assess the State's vulnerability, the report summarizes key climate change impacts to the State for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016. In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that the State government should take to build climate change resiliency.

State Regulations Related to Energy

The primary State regulatory agencies governing energy consumption are the CEC and the CPUC.

The CEC, created by the Legislature in 1974, has seven major responsibilities: forecasting future energy needs; promoting energy efficiency and conservation by setting the State's appliance and building energy efficiency standards; supporting energy research that advances energy science and technology through research, development, and demonstration projects; developing renewable energy resources; advancing alternative and renewable transportation fuels and

technologies; certifying thermal power plants 50 MW and larger; and planning for and directing State response to energy emergencies.[29]

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC is responsible for ensuring that customers have safe, reliable utility service and infrastructure at reasonable rates, regulating utility services, stimulating innovation, and promoting competitive markets.[30]

The State has adopted various regulations aimed at reducing energy consumption, increasing energy efficiency, and mandating sourcing requirements for electricity production. The following regulations are applicable to the proposed project.

Building Energy

The following regulations relate to energy efficiency and energy use reductions in the built environment.

Title 24, Part 6

Title 24 of the CCR, which is known as the California Building Standards Code (CBSC), was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed periodically, and revised if necessary, by the Building Standards Commission and CEC ([PRC Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (PRC Section 25402). The regulations are scrutinized and analyzed for technological and economic feasibility (PRC Section 25402[d]) and cost effectiveness (PRC Sections 25402[b][2] and [b][3]). As a result, the standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2022 Title 24 standards are the currently applicable building energy efficiency standards and became effective on January 1, 2023. Compliance with the 2022 Title 24 Building Energy Efficiency Standards will reduce energy use and associated GHG emissions compared to structures built in compliance with the previous 2019 Title 24 standards. The 2022 Title 24 standards focus on four key areas in newly constructed homes and businesses:[31]

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.
- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking and EV charging options whenever they choose to adopt those technologies.

[29] California Energy Commission. *About the California Energy Commission*. Available at: http://www.energy.ca.gov/about. Accessed June 2024.
[30] California Public Utilities Commission. *California Public Utilities Commission*. Available at: https://www.cpuc.ca.gov/about-cpuc. Accessed June 2024.
[31] California Energy Commission. *Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions From Homes and Businesses.* Available at: https://www.energy.ca.gov/news/2021-08/energy-commission-adopts-updated-building-standards-improve-efficiency-reduce-0. Accessed June 2024.

- Expanding solar PV system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

Title 24, Part 11

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as the CALGreen Code, and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and State-owned buildings and schools and hospitals. The original CALGreen standards have been updated several times. The CALGreen 2022 standards, which are the current standards, improved upon the 2019 CALGreen standards, and went into effect on January 1, 2023. The mandatory standards require the following:

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California DWR's MWELO;
- 65 percent of construction and demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of EV charging stations or designated spaces capable of supporting future charging stations; and
- Low-pollutant-emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

The CALGreen standards also include voluntary efficiency measures that are provided at two tiers and implemented at the discretion of local agencies and applicants. According to Section A4.602 of Appendix A4 of the CALGreen Code, CALGreen's Tier 1 standards call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 80 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar-reflective roofs.

It should also be noted that the CALGreen standards include what is commonly called California's 2020 Solar Mandate, which requires all newly built homes to install solar photovoltaic systems. The mandate applies to "all low-rise residential occupancies including single-family homes, duplexes, garden apartments, and other housing types with three or fewer habitable stories." The mandate includes multi-family housing such as apartment buildings as long as the buildings are under three stories. Sizing requirements are based on the floor area of the home and the climate zone. The solar panel systems must be sized to provide for the full annual energy usage of the home. In order to increase home energy efficiency, sizes of solar photovoltaic systems would generally be anticipated to range between 2.7 kilowatts and 5.7 kilowatts under the new Title 24

requirements. The average system sizes take into consideration the fact that new homes would also include other technology that would enable them to be more energy-efficient overall. Effective in January 2023, California's Solar Mandate also requires that all single-family homes be electric-ready. The CALGreen standards also include guidance for installing battery storage systems. The battery portion of the mandate currently only applies to select businesses.

Title 20

Title 20 of the CCR requires manufacturers of appliances to meet State and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and State standards for federally regulated appliances, State standards for federally regulated appliances, and State standards for non-federally regulated appliances.

Transportation/Fuel Energy

The following regulations relate to fuel efficiency and energy use reductions in the transportation and motorized vehicle sector.

Assembly Bill 1493

In 2002 California adopted AB 1493, also known as the Pavley I standards, which required new passenger vehicles with model years 2009 to 2016 to meet more stringent fuel efficiency standards. Additional laws have extended these rules to cover vehicles from future model years.

Executive Order S-1-07

EO S-1-07, otherwise known as the LCFS, was adopted in 2009 and requires transportation fuels such as gasoline and diesel sold within the state to be less carbon intensive. These policies reduce emissions from on-road transportation and off-road equipment use in Winters.

Executive Order B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, CEC, CPUC, and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

Assembly Bill 1346

AB 1346 (October 2021) prohibits the sale of new non-electric small off-road engines. Small off-road engines, which are used primarily in lawn and garden equipment, emit high levels of air pollutants and, in 2020, California daily criteria pollutant emissions from small off-road engines were higher than emissions from light-duty passenger cars. Thus, by January 1, 2024, regulations shall prohibit engine exhaust and evaporative emissions from new small off-road engines.

Senate Bill 500

SB 500 (September 2021) requires that, beginning January 1, 2030, to the extent allowed by federal law, any autonomous vehicle that is model year 2031 or later, has a gross vehicle weight rating of less than 8,501 pounds, and is equipped with Level 3, 4, or 5 automation (as defined by the International Society of Automotive Engineers) to be a zero-emission vehicle to be operated on California public roads.

Climate Change Scoping Plan

The key elements of the Scoping Plan, as introduced above, related to transportation energy include the following:

1. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; and
2. Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS (17 CCR, Section 95480 et seq.).

Renewable Energy and Energy Procurement

The following regulation relates to the source of electricity provided to consumers within the State, as well as standards related to the generation of electricity within the State.

Renewable Portfolio Standard (RPS), Senate Bill 350, and Senate Bill 100

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

Since the inception of the RPS program, the program has been extended and enhanced multiple times. In 2015, SB 350 extended the State's RPS program by requiring that publicly owned utilities procure 50 percent of their electricity from renewable energy sources by 2030. The requirements of SB 350 were expanded and intensified in 2018 through the adoption of SB 100, which mandated that all electricity generated within the State by publicly owned utilities be generated through carbon-free sources by 2045. In addition, SB 100 increased the previous renewable energy requirement for the year 2030 by 10 percent; thus, requiring that 60 percent of electricity generated by publicly owned utilities originate from renewable sources by the year 2030.

Local Regulations

The following are the regulatory agencies and regulations pertinent to the proposed project on a local level.

The most prominent local regulations related to air quality, GHG emissions, and energy are established by the YSAQMD and the City of Winters, as discussed in further detail below.

YSAQMD

Various local, regional, State and federal agencies share the responsibility for air quality management in Yolo County. The YSAQMD operates at the local level with primary responsibility for attaining and maintaining the federal and State AAQS in Yolo County. The YSAQMD is tasked with implementing programs and regulations required by the FCAA and the CCAA, including preparing plans to attain federal and State AAQS. The YSAQMD works jointly with the USEPA, CARB, SACOG, other air districts in the region, county and city transportation and planning departments, and various non-governmental organizations to improve air quality through a variety of programs. Programs include the adoption of regulations, policies and guidance, extensive education and public outreach programs, as well as emission reducing incentive programs.

YSAQMD CEQA Guidance

Nearly all development and mining projects in the region have the potential to generate air pollutants that may increase the difficulty of attaining federal and State AAQS. Therefore, for most projects, evaluation of air quality impacts is required to comply with CEQA. In order to help public agencies evaluate air quality impacts, the YSAQMD has developed the Handbook for Assessing and Mitigating Air Quality Impacts.[32] The YSAQMD's handbook includes screening methodology and recommended thresholds of significance, including mass emission thresholds for construction-related and operational criteria pollutants. Although the YSAQMD's handbook includes emissions thresholds and analysis methodology for criteria pollutants, the YSAQMD has not yet established or adopted methodology or thresholds for the assessment of impacts related to GHG emissions.

YSAQMD Rules and Regulations

All projects under the jurisdiction of the YSAQMD are required to comply with all applicable YSAQMD rules and regulations. In addition, YSAQMD permit requirements apply to most industrial processes (e.g., manufacturing facilities, food processing), many commercial activities (e.g., print shops, drycleaners, gasoline stations), and other miscellaneous activities (e.g., demolition of buildings containing asbestos and aeration of contaminated soils). The YSAQMD regulations and rules include, but are not limited to, the following:

Regulation II – Prohibition, Exceptions - Requirements

Regulation II is comprised of prohibitory rules that are written to achieve emission reductions from specific source categories. The rules are applicable to existing sources as well as new sources. Examples of prohibitory rules include Rule 2.1 (Control of Emissions), Rule 2.28 (Cutback and Emulsified Asphalts), Rule 2.5 (Nuisance), Rule 2.11 (Particulate Matter Concentration), Rule 2.14 (Architectural Coatings), and Rule 2.40 (Wood Burning Appliances). Considering the relevance of Rule 2.5 and Rule 2.11 to the proposed activities, both rules are discussed in further depth below.

Rule 2.5 – Nuisance

Rule 2.5 prohibits the discharge of sufficient quantities of air contaminants or other materials that cause injury, detriment, nuisance, or annoyance to any considerable

[32] Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts*. July 11, 2007.

number of persons or to the public. The rule further protects the public from being subject to air contaminants and other materials that could endanger the comfort, repose, health, or safety of any persons, or could damage business or property.

Rule 2.11 – Particulate Matter Concentration

Rule 2.11 is intended to protect the ambient air quality within the YSAQMD's jurisdiction by establishing a standard for PM emissions. Per the definitions of Rule 2.11, PM is defined as any material that is emitted as a liquid or solid particles, or gaseous materials that becomes liquid or solid particles when collected at standard conditions. PM meeting the foregoing definition, shall not be released from any single source operation, dust, fumes, or other total suspended particulate matter emissions in excess of 0.1 grain per cubic foot of gas at dry standard conditions.

Regulations III – Permit System

Regulation III is intended to provide an orderly procedure for the review of new sources, and modification and operation of existing sources, of air pollution through the issuance of permits. Regulation III primarily deals with permitting major emission sources and includes, but is not limited to, rules such as General Permit Requirements (Rule 3.1), Exemptions (Rule 3.2), Portable Equipment (Rule 3.3), New Source Review (Rule 3.4), Emission Reduction Credits (Rule 3.5), Emission Statements (Rule 3.7), and Toxics New Source Review (Rule 3.13).

Air Quality Attainment Plans

As a part of the SVAB federal ozone nonattainment area, the YSAQMD works with the other local air districts within the Sacramento area to develop a regional air quality management plan under the FCAA requirement. The currently applicable regional air quality management plan is called the SIP which describes and demonstrates how the Sacramento nonattainment area (in which the project site is located) would attain the required NAAQS by the proposed attainment deadline. In accordance with the requirements of the FCAA, the YSAQMD, along with the other air districts in the region, prepared the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan) in December 2008. The CARB determined that the Ozone Attainment Plan met FCAA requirements and approved the Plan on March 26, 2009 as a revision to the SIP. An update to the plan, *2017 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (2017 Ozone Attainment Plan), was prepared and adopted by CARB on November 16, 2017. An additional update to the plan was prepared and adopted by CARB on October 15, 2018, and known as the *2018 Updates to the California State Implementation Plan.*

The Ozone Attainment Plan, and subsequent updates, demonstrate how existing and new control strategies would provide the necessary future emission reductions to meet the FCAA requirements, including the NAAQS. It should be noted that in addition to strengthening the 8-hour ozone NAAQS, the USEPA also strengthened the secondary 8-hour ozone NAAQS, making the secondary standard identical to the primary standard. The SVAB remains classified as a severe nonattainment area for ozone with an attainment deadline of 2027. On October 26, 2015, the USEPA released a final implementation rule for the revised NAAQS for ozone to address the requirements for reasonable further progress, modeling and attainment demonstrations, and reasonably available control measures (RACM) and reasonably available control technology (RACT). The USEPA published designations for areas in attainment/unclassifiable for the 2015

ozone standards. The USEPA identified the entire Yolo County as nonattainment for the 2015 ozone standards.[33]

Winters General Plan

The following goals and policies from the Winters General Plan related to air quality, GHG emissions, and energy are applicable to the proposed project.

Goal II.C To encourage energy efficiency in both new and existing homes

Policy II.C.1 As required by state law, the City shall require the use of energy conservation features in the design of all new residential structures. The City shall also promote incorporation of energy conservation and weatherization features in existing homes.

Goal III.D To consider air quality and noise impacts along with traffic flow efficiency when making decisions about improvements to existing roadways or construction of new roadways.

Policy III.D.1 To the extent feasible, the City shall provide for separation of residential and other noise sensitive land uses from major roadways to reduce noise and air pollution impacts.

Goal VI.E To promote and, to the extent possible, improve air quality in Winters and the region.

Policy VI.E.2 The City shall utilize the CEQA process to identify and avoid or mitigate potentially significant air quality impacts of new development. The CEQA process shall also be utilized to ensure early consultation with the Yolo-Solano Air Pollution Control District concerning air quality issues associated with specific development proposals.

Policy VI.E.4 Major intersections shall be designed to minimize long vehicle delays which result in carbon dioxide (CO) "hot spots."

Policy VI.E.5 The City shall, to the extent practicable, separate sensitive land uses from significant sources of air pollutants or odor emissions.

Policy VI.E.6 The City shall require for both public and private projects that construction-related dust be minimized. Larger projects that create a potential for generating a significant amount of construction-related dust shall be required to include dust control measures as part of their construction mitigation plans.

Policy VI.E.8 The City shall attempt through careful land use and site planning to reduce automobile use.

[33] U.S. Environmental Protection Agency. *California Final Area Designations for the 2015 Ozone National Ambient Air Quality Standards Technical Support Document.* June 3, 2018.

Policy VI.E.10 The City shall contribute through tree planting and preservation to the enhancement of air quality.

Policy VI.E.11 In granting development entitlement, the City shall require all new industrial and commercial developments within the city projected to generate more than 500 trips per day (based on typical generation rates) to develop an air quality mitigation plan. This plan shall include an analysis of how the project would utilize site planning, mixed land uses, transportation systems management measures (e.g., carpooling, van pooling, shuttle bus service, transit incentives, etc.) to reduce by 25 percent the number of trips that would typically be projected for such development. Where this goal cannot be met by these methods, the plan shall provide for off-site mitigation through funding of air quality improvements such as new park-and-ride lots, sidewalks, bike paths, and support of transit, as deemed acceptable to the City.

Goal VI.F Promote energy efficient development in City's development review process through effective implementation of adopted state and local standards, and guidelines.

Policy VI.F.1 In approving new residential subdivisions, the City shall promote the maximum feasible east-west alignment of lots for southern solar exposure, as required by the State Subdivision Act.

Policy VI.F.2 The City shall encourage and promote examples of energy efficient design and operation of new residential, commercial, and industrial development projects.

Policy VI.F.4 The City shall provide for the dedication of sunlight easements in connection with land divisions, pursuant to Government Code §66475.3.

Winters Climate Action Plan

In July of 2021, the City of Winters adopted a CAP that is intended to guide reduction of GHG emissions associated with existing operations and future development in the City.[34] The Winters CAP identifies workable climate change abatement and mitigation strategies for the City, residents, and local businesses related to Mobility, Water and Waste, Building and Infrastructure, Urban Forest and Open Space, and Municipal Operations, and provides Adaptation and resilience strategies to help overcome the consequences of climate change within the City. However, the CAP does not include quantitative thresholds to assess a project's compliance with the CAP. Therefore, the City of Winters CAP is not considered a qualified GHG reduction plan under Section 15183.5 of the CEQA Guidelines.

4.3.4 IMPACTS AND MITIGATION MEASURES

The standards of significance and methodology used to analyze and determine the proposed project's potential project-specific impacts related to air quality and GHG emissions are described

[34] City of Winters. *2021 Final Winters Climate Action Plan*. July 20, 2021.

below. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Based on Appendix G of the CEQA Guidelines, an impact related to air quality, GHG emissions, or energy is considered significant if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State AAQS;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources; or
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Issues Dismissed in Initial Study

The Initial Study prepared for the proposed project (see Appendix A) determined that development of the proposed project would result in a less-than-significant impact related to the following impacts:

- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;

However, additional information regarding the potential impacts associated with the above is also included within this EIR.

Criteria Pollutant Emissions

The YSAQMD significance thresholds for emissions of ROG, NO_X, and PM_{10} are presented in Table 4.3-6 below and expressed in maximum tons per year (tons/yr) for ROG and NO_X and maximum pounds per day (lbs/day) for PM_{10}. If the proposed project's emissions exceed the pollutant thresholds presented in Table 4.3-6, the project could have a significant effect on air quality, the attainment of federal and State AAQS, and could conflict with or obstruct implementation of the applicable air quality plan.

Table 4.3-6
YSAQMD Thresholds of Significance

Pollutant	Construction Threshold	Operational/Cumulative Threshold
ROG	10 tons/yr	10 tons/yr
NO_X	10 tons/yr	10 tons/yr
PM_{10}	80 lbs/day	80 lbs/day

Source: YSAQMD. Handbook for Assessing and Mitigating Air Quality Impacts. July 11, 2007.

With regard to cumulative emissions of criteria air pollutants, according to the YSAQMD Handbook for Assessing and Mitigating Air Quality Impacts, any project that would individually have a significant air quality impact (i.e., exceed the project level thresholds presented in Table 4.3-6) would also be considered to have a significant cumulative impact.[35] As a result, the cumulative-level emissions thresholds established by YSAQMD are assumed to be identical to the project-level emissions thresholds presented in Table 4.3-6, above.

Ascertaining cancer risk, or similar measurements of health effects from air pollutants, is very difficult for regional pollutants such as the ozone precursors ROG and NO_X. This challenge was addressed in *Sierra Club v. County of Fresno (2018) 6 Cal.5th 502, 510, 517-522*. In that case, the California Supreme Court held generally that an EIR should "make a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." A possible example of such a connection would be to calculate a project's "impact on the days of nonattainment per year." But the court recognized that there might be scientific limitations on an agency's ability to make the connection between air pollutant emissions and public health consequences in a credible fashion, given limitations in technical methodologies. Thus, the court acknowledged that another option for an agency preparing an EIR might be "to explain why it was not feasible to provide an analysis that connected the air quality effects to human health consequences."

Here, the YSAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of emissions in Yolo County. At present, the YSAQMD has not provided any methodology to assist local governments in reasonably and accurately assessing the specific connection between mass emissions of ozone precursors (e.g., ROG and NO_X) and other pollutants of concern on a regional basis and any specific effects on public health or regional air quality concentrations that might result from such mass emissions.

Ozone concentrations, for instance, depend upon various complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground level ozone concentrations related to the NAAQS and CAAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds. To achieve the health-based standards established by the USEPA, the air districts prepare air quality management plans that detail regional programs to attain the AAQS. However, if a project within the YSAQMD exceeds the regional significance thresholds, the proposed project could contribute to an increase in health effects in the basin until the attainment standards are met in the SVAB.

Notably, during the litigation process that led to the California Supreme Court decision in *Sierra Club v. County of Fresno*, the San Joaquin Valley Air Pollution Control District (SJVAPCD) submitted an amicus curiae brief that provided scientific context and expert opinion regarding the feasibility of performing regional dispersion modeling for ozone. In the brief, SJVAPCD states that "CEQA does not require an EIR to correlate a project's air quality emissions to specific health impacts, because such an analysis is not reasonably feasible." As SJVAPCD explains:

> Attainment of a particular NAAQS occurs when the concentration of the relevant pollutant remains below a set threshold on a consistent basis throughout a particular region. For example, the San Joaquin Valley attained the 1-hour ozone NAAQS when ozone

[35] Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts*. July 11, 2007.

> concentrations remained at or below 0.124 parts per million Valley-wide on 3 or fewer days over a 3-year period. Because the NAAQS are focused on achieving a particular concentration of pollution region-wide, the Air District's tools and plans for attaining the NAAQS are regional in nature.
>
> For instance, the computer models used to simulate and predict an attainment date for the ozone or particulate matter NAAQS in the San Joaquin Valley are based on regional inputs, such as regional inventories of precursor pollutants (NOx, SOx and VOCs) and the atmospheric chemistry and meteorology of the Valley. At a very basic level, the models simulate future ozone or PM levels based on predicted changes in precursor emissions Valley wide. Because the NAAQS are set levels necessary to protect human health, the closer a region is to attaining a particular NAAQS, the lower the human health impact is from that pollutant.
>
> The goal of these modeling exercises is not to determine whether the emissions generated by a particular factory or development project will affect the date that the Valley attains the NAAQS. Rather, the Air District's modeling and planning strategy is regional in nature and based on the extent to which all of the emission-generating sources in the Valley (current and future) must be controlled in order to reach attainment.
>
> Accordingly, the Air District has based its thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the [SJVAB] can accommodate without affecting the attainment date for the NAAQS. The Air District has tied its CEQA significance thresholds to the level at which stationary pollution sources must "offset" their emissions…Thus, the CEQA air quality analysis for criteria air pollutants is not really a localized, project-level impact analysis but one of regional cumulative impacts.

The brief explains that these CEQA thresholds of significance are not intended to be applied such that any localized human health impact associated with a project's regional pollutant emissions could be identified. Rather, CEQA thresholds of significance are used to determine whether a project's emissions would obstruct a region's capability of attaining the NAAQS and CAAQS according to the emissions inventory prepared in a SIP, which is then submitted and reviewed by CARB and CalEPA. This sentiment is corroborated in an additional brief submitted by the South Coast Air Quality Management District. Based on the expert analyses submitted by these leading air districts, the City has concluded that it is not scientifically feasible to predict in a meaningful manner how mass emissions of pollutants of regional concern (e.g., ozone precursors) from a project of the size of the proposed project could lead to specific public health consequences, changes in pollutant concentrations, or changes in the number of days for which the SVAB will be in nonattainment for regional pollutants.

Localized CO Emissions

The YSAQMD recommends the use of screening thresholds to assess a project's potential to create an impact through the creation of CO hotspots. A violation of the CO standard could occur if either of the following criteria is true of any street or intersection affected by the mitigated project:[36]

- The project would reduce peak-hour level of service (LOS) on one or more streets or at one or more intersections to an unacceptable LOS (typically LOS E or F); or

[36] Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts* [p. 21]. July 11, 2007.

- The project would increase a traffic delay by 10 or more seconds on one or more streets or at one or more intersections in the project vicinity where a peak hour LOS of F currently exists.

However, while a Traffic Operations Analysis was included in the Transportation Study prepared for the proposed project by Fehr & Peers, considering that the law has changed with respect to how transportation-related impacts may be addressed under CEQA such that unacceptable LOS is no longer considered a significant impact on the environment under CEQA, the analysis herein related to localized CO emissions uses guidance from the nearby Sacramento Metropolitan Air Quality Management District (SMAQMD) and Placer County Air Pollution Control District (PCAPCD). According to the SMAQMD's CEQA Guide,[37] emissions of CO are generally of less concern than other criteria pollutants, as operational activities are not likely to generate substantial quantities of CO, and the SVAB has been in attainment for CO for multiple years. Thus, SMAQMD no longer recommends an analysis of localized CO emissions. The PCAPCD, which has jurisdiction over a portion of the SVAB, has a screening level for localized CO impacts. According to the PCAPCD screening level, a project could result in a significant impact if the project would result in CO emissions from vehicle operations in excess of 550 lbs/day.[38]

TAC Emissions

For TAC emissions, if a project would introduce a new source of TAC or a new sensitive receptor near an existing source of TAC that would not meet the CARB's minimum recommended setback, a detailed health risk assessment may be required. As such, in addition to the thresholds of significance presented above for criteria air pollutants, YSAQMD has also developed thresholds for potential exposure of the public to TACs from new stationary sources. Exposure of the public to TACs from new stationary sources in excess of the following thresholds would be considered a significant impact:

- Probability of contracting cancer for the Maximally Exposed Individual (MEI) equals to 10 in one million or more; and
- Ground-level concentrations of non-carcinogenic TACs would result in a Hazard Index equal to 1 for the MEI or greater.

Although the YSAQMD has established thresholds for exposure to TACs from new stationary sources, a threshold for exposure of the public to mobile TAC emissions, such as emissions associated with DPM from heavy-duty diesel trucks or off-road construction equipment, does not currently exist. In the absence of a specified threshold for assessing impacts of mobile sources of TACs on a sensitive land use, the industry standard is to use the stationary source threshold of an increase in cancer risk of 10 in one million and a Hazard Index greater than one, which is the standard that has been used throughout the State for similar health risk analyses.

GHG Emissions

The YSAQMD, in their Handbook for Assessing and Mitigating Air Quality Impacts, acknowledges that new emissions generated by development projects could potentially conflict with existing GHG emissions reductions targets, and thus, a need for development of GHG emissions thresholds exists. However, the YSAQMD has not yet established or adopted any such thresholds.

[37] Sacramento Metropolitan Air Quality Management District. *CEQA Guide*. April 2020.
[38] Placer County Air Pollution Control District. *CEQA Air Quality Handbook*. November 21, 2017.

The YSAQMD is currently recommending GHG analysis consistent with the SMAQMD adopted thresholds of significance.

For construction-related GHG emissions, the SMAQMD has adopted a threshold of significance of 1,100 $MTCO_2e$/yr. If construction of the proposed project would result in emissions that exceed 1,100 $MTCO_2e$/yr, then construction of the project could be considered to result in a potentially significant impact and mitigation measures would be required.

For evaluating operational GHG emissions, SMAQMD has prepared a two-tiered framework of analysis for new projects. All development projects are required to implement Tier 1 measures (Best Management Practices [BMPs] 1 and 2). If operations of the proposed project would exceed 1,100 $MTCO_2e$/yr after implementation of the Tier 1 measures, then the project is required to implement Tier 2 measures (BMP 3). The Tier 1 and Tier 2 requirements are explained in further detail below.

Tier 1

All projects within SMAQMD's jurisdiction would be required to comply with the BMPs included in Tier 1. The proposed Tier 1 BMPs are as follows:

- ***BMP 1:*** No natural gas: Projects shall be designed and constructed without natural gas infrastructure.
- ***BMP 2:*** EV ready: Projects shall meet the current CALGreen Tier 2 standards, except all EV Capable spaces shall instead be EV Ready.

If a project would not comply with both of the foregoing BMPs, the project would be required to include features that would achieve an equivalent level of GHG emissions reductions. For instance, a project that includes natural gas infrastructure may include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances. After implementation of BMPs 1 and 2, if a project's operational emissions would be at or below 1,100 $MTCO_2e$/yr, the operational emissions would be considered less than significant. Projects that would still result in emissions in excess of 1,100 $MTCO_2e$/yr after implementation of BMPs 1 and 2 are subject to review under Tier 2 of SMAQMD's thresholds.

Furthermore, projects that are below the Governor's OPR's *de minimis* vehicle miles travelled (VMT) criteria, and/or projects that emit less than 1,100 $MTCO_2e$/yr prior to implementation of BMP 1 and BMP 2 would be considered sufficiently small to screen out of further requirements, and would be assumed to result in a less-than-significant impact related to GHG emissions and climate change. The following types of projects would be considered to be below the OPR's *de minimis* VMT criteria:

- Small projects that generate or attract fewer than 110 trips per day;
- Residential and office projects in areas with low VMT (currently below threshold VMT) that incorporate similar features (i.e., density, mix of uses, transit accessibility), including affordable housing infill development; or
- Residential, retail, office, or mixed-use projects within 0.5-mile walking distance of an existing major transit stop or existing stop along a high-quality transit corridor, unless the primary use of the site is auto-oriented (e.g., car dealership, car wash, gas station).

It is noted, however, that all projects within the jurisdiction of SMAQMD are required to implement the Tier 1 measures, even if the project qualifies for screening using the OPR's *de minimis* VMT criteria.

Tier 2

The second tier of SMAQMD's thresholds includes the following BMP:

- ***BMP 3***: Residential projects shall achieve a 15 percent reduction in VMT per resident, and office projects should achieve a 15 percent reduction in VMT per worker compared to existing average VMT per capita for the county, or for the city if a more local SB 743 target has been established. VMT reductions can be achieved by many strategies, such as:
    - Locate in an area that already has low VMT due to location, transit service, etc.;
    - Adopt California Air Pollution Control Officers Association (CAPCOA) measures;
    - Adopt measures noted in an applicable CAP checklist;
    - Join a Transportation Management Association;
    - Incorporate traffic calming measures;
    - Incorporate pedestrian facilities and connections to public transportation; and/or
    - Promote electric bicycle or other micro-mobility options.
    -

Pursuant to the Tier 2 requirement, if a project can successfully achieve a 15 percent reduction in VMT or meet the requirements of an established local SB 743 target, then impacts associated with operational GHG emissions are considered less than significant.

If a project cannot incorporate any of the foregoing BMPs, other reductions or purchasing and retiring of GHG/carbon offsets can be used as an alternative method of compliance. Given that the developer demonstrates that the alternative method(s) of compliance would achieve the same reductions as those required by BMPs 1 through 3, the project can be considered to result in a less-than-significant impact related to operational GHG emissions. Additionally, while the all electric requirement in SMAQMD's BMP 1 has not been challenged and is consistent with guidance from other agencies, the Ninth Circuit recently held that the Energy Policy and Conservation Act expressly preempted an ordinance banning natural gas piping within new buildings for appliances covered by the Act unless narrow exceptions applied.[39] While that Ninth Circuit decision does not address mitigation measures or GHG emissions thresholds, a similar challenge could be brought forth in the future and a future court decision could find that all-electric mitigation requirements or GHG emissions thresholds are similarly preempted for covered appliances. The feasibility of BMP 1 also relies on the adequate availability of electricity at the time of development.

Energy

Quantitative thresholds for the analysis of potential impacts related to energy consumption have not been adopted by any local, regional, or statewide entities. Consequently, potential impacts of the project related to energy will be determined based on whether the project would result in wasteful, inefficient, or unnecessary use of energy. In addition, the potential for the project to conflict with or obstruct a state or local plan for renewable energy generation or energy efficiency

[39] *California Restaurant Association v. City of Berkeley* (9th Cir. 2023) 65 F.4th 1045, opinion modified (9th Cir. 2024) 89 F.4th 1094, rehearing and request for En banc hearing denied on January 2, 2024.

will be considered. The analysis of energy consumption will include consideration of energy demand during both project construction and operations.

Method of Analysis

The analysis protocol and guidance discussed above, including screening criteria and pollutant thresholds of significance, was used to analyze the proposed project's air quality and GHG emissions impacts.

Construction Emissions

The proposed project's short-term construction emissions were estimated using the web-based California Emissions Estimator Model (CalEEMod) Version 2022.1.1.24, which is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the ITE Manual, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. Accordingly, the proposed project's construction modeling assumes the following based on applicant-provided project-specific data:

- Construction would begin in August 2025;
- Construction would occur over an approximately 3.75-year period; and
- Approximately 35,000 cubic yards (CY) of soil would be imported to the site during grading activities.

The results of construction emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. Results of the modeling are expressed in tons/yr for ROG and NO_X emissions, lbs/day for PM_{10} emissions, and $MTCO_2e$/yr for GHG emissions, which allows for comparison between the model results and the thresholds of significance. All CalEEMod modeling results are included in Appendix C to this EIR.

Operational Emissions

The proposed project's operational emissions were estimated using CalEEMod. Based on project-specific information provided by the project applicant, the proposed project is anticipated to be fully operational by 2029. The modeling performed for the proposed project included compliance with YSAQMD rules and regulations, as well as with the California Building Energy Efficiency Standards Code, which is part of the CBSC. The proposed project's compliance with such would be verified as part of the City's building approval review process. In addition, Fehr & Peers provided project-specific trip generation rates, which were applied to the project modeling.

In addition, the current carbon uptake rate associated with on-site agricultural biomass and soils was estimated to be 63 $MTCO_2e$ per acre based on the combined soil and biomass carbon factors for General Agricultural lands.[40] Such emissions were added to the project operational emissions to account for the loss of the agricultural carbon uptake on-site. It should be noted that while GHG emissions are also currently emitted on-site associated with land maintenance and harvesting equipment, such emissions were omitted from this analysis to provide a conservative, worst-case scenario.

[40] Sacramento Municipal Utility District. *Sacramento County Landscape Carbon Assessment.* December 2017.

The results of operational emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. Results of the modeling are expressed in tons/yr for ROG and NO_X emissions and lbs/day for PM_{10} emissions, which allows for comparison between the model results and the thresholds of significance. In addition, while the thresholds of significance for operational GHG emissions are qualitative, operational GHG emissions are presented herein to determine whether the proposed project would be required to implement BMP 3, and are expressed in $MTCO_2e$/yr. All CalEEMod modeling results are included in Appendix C to this EIR.

Construction Health Risk Assessment (HRA)

To analyze potential health risks to nearby receptors that could result from DPM emissions from off-road equipment at the project site, total DPM emissions from construction of the proposed project were estimated. DPM is considered a subset of $PM_{2.5}$; thus, the CalEEMod estimated $PM_{2.5}$ emissions from exhaust during construction was conservatively assumed to represent all DPM emitted on-site. The CalEEMod estimated $PM_{2.5}$ exhaust emissions were then used to calculate the concentration of DPM at the maximally exposed sensitive receptor near the project site.

DPM concentrations resulting from project implementation were estimated using the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD). The associated cancer risk and non-cancer hazard index were calculated using the CARB's Hotspot Analysis Reporting Program Version 2 (HARP 2) Risk Assessment Standalone Tool (RAST), which calculates the cancer and non-cancer health impacts using the risk assessment guidelines of the 2015 OEHHA Guidance Manual for Preparation of Health Risk Assessments.[41] The modeling was performed in accordance with the USEPA's User's Guide for the AERMOD[42] and the 2015 OEHHA Guidance Manual.

Although pollutant concentrations at all nearby receptors were estimated, for the purpose of determining potential health risks, only the highest estimated pollutant concentrations were used in calculating cancer risk and hazard indices. The receptor experiencing the highest estimated pollutant concentrations was considered to be the maximally exposed receptor, and would experience the highest potential health risks. Health risks to all other receptors would be lower than the health risks to the maximally exposed receptor, because all other receptors would be exposed to lower concentrations of construction-related pollutants as compared to the maximally exposed receptor.

Additionally, the estimation of health risks conservatively assumed that nearby receptors would be continuously exposed to pollutants from construction at the maximum estimated concentrations. This assumption would represent a scenario whereby a resident living nearby also attends a nearby school and is therefore exposed to pollutants both at home and at school. In practice, concentrations of pollutants at nearby schools would be much less than the concentration of pollutants at the maximally exposed receptor location. Due to the difference in pollutant concentrations at the maximally exposed receptor location and nearby schools, a single receptor would not be anticipated to be continuously exposed to the maximum level of pollutant concentrations both at home and at school. Nevertheless, by using the maximum estimated

[41] Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments* [pg. 8-18]. February 2015.
[42] U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.

concentrations and assuming continuous exposure to pollutants, the estimated health risks presented below are considered a worst-case estimate of potential health risks, and actual health risks to receptors in the project area would be lower than the levels presented within this analysis.

The results of construction HRA estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All AERMOD and HARP 2 RAST modeling results are included in Appendix C to this EIR.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above. It should be noted that GHG emissions are inherently cumulative; thus, the discussion of GHG impacts is included under the Cumulative Impacts and Mitigation Measures section below.

4.3-1 Conflict with or obstruct implementation of the applicable air quality plan during project construction. Based on the analysis below, the impact is *less than significant*.

During construction of the project, various types of equipment and vehicles would temporarily operate on the project site. Construction-related emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes PM emissions. As construction of the proposed project would generate emissions of criteria air pollutants, including ROG, NO_X, and PM_{10}, intermittently within the site and in the vicinity of the site, until all construction has been completed, construction is a potential concern, as the proposed project is located in a nonattainment area for ozone and PM.

Table 4.3-7 below presents the estimated construction-related emissions of ROG, NO_X, and PM_{10} associated with the proposed project in comparison with the YSAQMD thresholds of significance as described above.

Table 4.3-7
Maximum Unmitigated Construction-Related Emissions

Pollutant	Project Emissions	Construction Threshold	Exceeds Threshold?
NO_X	1.01 tons/yr	10 tons/yr	**NO**
ROG	1.80 tons/yr	10 tons/yr	**NO**
PM_{10}	21.2 lbs/day	80 lbs/day	**NO**

Source: CalEEMod, June 2024 (see Appendix C).

As shown in Table 4.3-7, construction activities would result in emissions of ROG, NO_X, and PM_{10} below the applicable YSAQMD thresholds of significance. Therefore, construction activities associated with development of the proposed project would not substantially contribute to the SVAB's non-attainment status for ozone or PM, and the

proposed project would not violate an air quality standard, or contribute to an existing or projected air quality violation during construction.

While all projects within the YSAQMD, including the proposed project, are required to comply with all YSAQMD rules and regulations for construction, including Rule 2.1 (Control of Emissions), Rule 2.28 (Cutback and Emulsified Asphalts), Rule 2.5 (Nuisance), Rule 2.14 (Architectural Coatings), and Rule 2.11 (Particulate Matter Concentration), the proposed project was modeled without the inclusion of such rules and regulations to provide a conservative, worst-case emissions scenario. Even under the conservative assumptions used for this analysis, emissions of PM_{10} would remain below the YSAQMD's thresholds of significance.

The YSAQMD also encourages all projects to implement BMPs to reduce dust emissions and avoid localized health impacts. The YSAQMD's BMPs for dust include, but are not necessarily limited to, the following:

- Watering of all active construction sites at least twice daily;
- Maintenance of at least two feet of freeboard in haul trucks;
- Covering of all trucks hauling dirt, sand, or loose materials;
- Application of non-toxic binders to exposed areas after cut and fill operations and hydroseeding of area, as applicable and/or necessary;
- Application of chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days), as applicable and/or necessary;
- Planting of vegetative ground cover in disturbed areas as soon as possible;
- Covering of inactive storage piles;
- Sweeping of streets if visible soil material is carried out from the construction site; and
- Treatment of accesses to distance of 100 feet from the paved road with a six- to 12-inch layer of wood chips, mulch, or gravel.

Compliance with the aforementioned rules and regulations related to construction, as well as implementation of BMPs for dust, would help to further reduce emissions generated during construction activities.

Based on the above, implementation of the proposed project would not conflict with or obstruct implementation of the applicable air quality plan related to the region's nonattainment status for ozone during construction, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.3-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation. Based on the analysis below, the impact is *less than significant*.

Due to the nonattainment designations of the area, the YSAQMD has developed plans to attain the State and federal standards for ozone and PM. The currently applicable air quality plan is the Ozone Attainment Plan. Adopted YSAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with the applicable air quality plan. Thus, if a project's operational emissions exceed the YSAQMD's mass emissions thresholds for operational emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the YSAQMD's air quality planning efforts.

Emissions of ROG, NO_X, and PM_{10} would be generated during operations of the proposed project from both mobile and stationary sources such as architectural coatings, landscape maintenance equipment exhaust, and consumer products (e.g., deodorants, detergents, hair spray, cleaning products, spray paint, insecticides, floor finishes, polishes, etc.). The most significant source of emissions related to the proposed project would be from mobile sources. As discussed in the Method of Analysis section above, to capture the potential emissions related to mobile sources from the proposed project, the project-specific trip generation rate estimates from Fehr & Peers were applied to the project modeling.

The maximum unmitigated operational emissions for the proposed project are presented in Table 4.3-8 below.

Table 4.3-8
Maximum Unmitigated Project Operational Emissions

Pollutant	Project Emissions	Operational Threshold	Exceeds Threshold?
NO_X	6.05 tons/yr	10 tons/yr	**NO**
ROG	4.62 tons/yr	10 tons/yr	**NO**
PM_{10}	44.6 lbs/day	80 lbs/day	**NO**

Source: CalEEMod, June 2024 (see Appendix C).

As shown in Table 4.3-8, the emissions resulting from operation of the proposed project would be below the applicable YSAQMD thresholds for ROG, NO_X, and PM_{10}. Therefore, operation of the proposed project would not conflict with or obstruct implementation of the applicable air quality plan during project operation, and a ***less-than-significant*** impact would result.

Mitigation Measure(s)
None required.

4.3-3 Expose sensitive receptors to substantial pollutant concentrations. Based on the analysis below, the impact is *less than significant*.

The major pollutant concentrations of concern are localized CO emissions, TAC emissions, and criteria pollutant emissions, which are addressed in further detail below.

Localized CO Emissions

Emissions of CO result from the incomplete combustion of carbon-containing fuels such as gasoline or wood and are particularly related to traffic levels. Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. As older, more polluting vehicles are retired and replaced with newer, cleaner vehicles, the overall rate of emission of CO for vehicle fleets throughout the State has been and is expected to continue to decrease.

As discussed in the Method of Analysis section above, while a Traffic Operations Analysis was included in the Transportation Study prepared for the proposed project by Fehr & Peers, considering that the law has changed with respect to how transportation-related impacts may be addressed under CEQA, such that unacceptable LOS is no longer considered a significant impact on the environment under CEQA, the analysis herein uses guidance from the nearby SMAQMD and PCAPCD, which both have jurisdiction over a portion of the SVAB and are adjacent to the YSAQMD.

According to the SMAQMD's CEQA Guide, emissions of CO are generally of less concern than other criteria pollutants, as operational activities are not likely to generate substantial quantities of CO, and the SVAB has been in attainment for CO for multiple years. Thus, SMAQMD no longer recommends an analysis of localized CO emissions.

The PCAPCD has a numerical screening level for localized CO impacts. According to the PCAPCD screening levels, a project could result in a significant impact if the project would result in CO emissions from vehicle operations in excess of 550 lbs/day. According to the modeling performed for the proposed project, the proposed project would result in maximum unmitigated operational mobile source CO emissions of 212 lbs/day. Consequently, CO emissions related to mobile sources associated with operation of the proposed project would be below the 550 lbs/day screening threshold used by PCAPCD, and, according to the PCAPCD's screening methodology for localized CO emissions, the proposed project would not be expected to generate localized CO emissions that would contribute to an exceedance of AAQS or expose sensitive receptors to substantial concentrations of localized CO.

TAC Emissions

Another category of environmental concern is TACs. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. The CARB's Handbook provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways

and high traffic roads, gas dispensing facilities (GDFs), chrome plating operations, distribution centers, and rail yards. The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM.

The nearest existing sensitive land use includes a residential subdivision directly to the west of the project site. The closest residences are approximately 65 feet away from the project site. The remaining surrounding areas include primarily vacant farmland, undeveloped land, and commercial and industrial uses.

Operational-related emissions of TACs are typically associated with stationary diesel engines or land uses that involve heavy truck traffic or idling. The proposed land uses would not involve long-term or frequent operations of any stationary diesel engines and would not involve heavy truck traffic or idling. Thus, the proposed project would not expose sensitive receptors to substantial concentrations of DPM during operations.

However, the proposed project would include construction activity within the project site that would involve the use of off-road equipment, much of which would likely be diesel powered. TAC emissions associated with construction activity are evaluated in further detail below.

Construction Emissions

Construction-related activities would result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. The potential for construction activity to generate DPM emissions is dependent on the number and types of equipment implemented for construction activity. Off-road heavy-duty diesel equipment used for site grading, paving, utility trenching and other construction activities result in the generation of DPM.

In order to determine if construction activities associated with the proposed project would not result in the exposure of any sensitive receptors to substantial pollutant concentrations, the concentration of $PM_{2.5}$ at the maximally exposed sensitive receptor nearest to the site was estimated using AERMOD. The results of the dispersion modeling are included as Figure 4.3-3. As shown in the figure, the maximally exposed receptor, represented by a white X, is located just north of the project site.

The cancer risk and non-cancer hazard indices were estimated for the maximally exposed receptor and are presented in Table 4.3-9.

As shown in the table, DPM emissions related to construction of the proposed project would result in cancer risk, as well as acute hazard and chronic hazard indices, that are below the applicable YSAQMD thresholds of significance.

Thus, construction activities associated with the project would not result in a potentially significant impact related to the exposure of sensitive receptors to substantial concentrations of DPM.

Figure 4.3-3
AERMOD Results



Source: AERMOD, June 2024.

Table 4.3-9
Maximum Unmitigated Cancer Risk and Hazard Index from Construction DPM

	Cancer Risk (per million persons)	Acute Hazard Index	Chronic Hazard Index
At Maximally Exposed Receptor	4.67	0.00	0.002
Thresholds of Significance	*10.00*	*1.00*	*1.00*
Exceed Thresholds?	**NO**	**NO**	**NO**

Sources: AERMOD and HARP 2 RAST, June 2024 (see Appendix C).

Naturally Occurring Asbestos

Another concern related to air quality is NOA. Asbestos is a term used for several types of naturally occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs).

Because asbestos is a known carcinogen, NOA is considered a TAC. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock; construction activities in ultramafic rock deposits; or rock quarrying activities where ultramafic rock is present.

According to mapping prepared by the California Geological Survey, Yolo County is not in an area likely to contain NOA.[43] Consequently, NOA is not expected to be present at the project site.

Criteria Pollutants

As discussed in the Existing Environmental Setting section and summarized in Table 4.3-1, criteria pollutant emissions can cause negative health effects. With regard to the proposed project, the principal criteria pollutants of concern are localized CO, ozone, and PM. As discussed above, the proposed project is not anticipated to result in impacts related to localized exposure of sensitive receptors to substantial concentrations of CO. Unlike CO and many TACs, due to atmospheric chemistry and dynamics, ozone and atmospheric PM typically act to impact public health on a cumulative and regional level, rather than a localized level. Due to the cumulative and regional nature of effects from criteria pollutants, the analysis of potential health effects of criteria pollutants is further discussed in Impact 4.3-6.

[43] California Department of Conservation, Division of Mines and Geology. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos*. August 2000.

Conclusion

Based on the above analysis, the proposed project would not result in the exposure of sensitive receptors to substantial concentrations of TAC, CO, or criteria pollutant emissions, and a ***less-than-significant*** impact would result.

Mitigation Measure(s)

None required.

4.3-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Based on the analysis below, the impact is *less than significant*.

Emissions of pollutants have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading to odors, emissions that have the potential to cause dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in Impacts 4.3-1 through 4.3-3 above. Therefore, the following discussion focuses on emissions of odors and dust.

Odors

As discussed above, due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative analysis to determine the presence of a significant odor impact is difficult. According to the YSAQMD, common types of facilities that are known to produce odors include, but are not limited to, wastewater treatment facilities, chemical or fiberglass manufacturing, landfills, composting facilities, food processing facilities, refineries, dairies, and asphalt or rending plants.[44] The proposed project is not located in the vicinity of any such existing or planned land uses. In addition, operations of the proposed project would involve activities typical to residential and commercial developments, and, consequently, would not be anticipated to result in the creation of substantial odors related to the aforementioned land uses.

However, restaurant uses, which can be a source of odors, are a permitted use within the Neighborhood Commercial (C-1) district that the commercial areas of the project site are zoned. Nevertheless, pursuant to California Mechanical Code Section 508.1 commercial kitchen facilities are required to have an exhaust hood that captures emissions from cooking surfaces, as well as scrubbers for washing the cooking vapors and trapping particles. Commercial kitchen hood exhausts generally consist of particulate filtration for smoke and mist, gas filtration for gases/odors, and a blower to move the air into the hood, through the air cleaning equipment, and then outdoors. Any future restaurant uses would include a low proximity compensating hood system that is intended to insulate heat, prevent condensation, capture and contain cooking vapors, and introduce make-up air into the indoor kitchen space. The hood directs grease laden vapors toward the exhaust filters. Grease filters and a grease trough come standard with the hood. Accordingly, the hood system would ensure that pollutants associated with smoke and exhaust from the cooking surface would be captured and filtered, allowing only filtered air to be released into the atmosphere.

[44] Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts [pg. 14].* July 11, 2007.

Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction is temporary and operation of equipment is regulated by federal, State, and local standards, including YSAQMD rules and regulations. Buildout of the proposed project would involve construction activity in different areas of the site throughout the construction period. Therefore, construction equipment would operate at varying distances from existing sensitive receptors, and potential odors from such equipment would not expose any single receptor to odors for a substantial period of time. Furthermore, construction activity would be restricted to certain hours of the day pursuant to the Winters Municipal Code, Section 8.20.070(B)(4), which would limit the times of day during which construction related odors would potentially be emitted. The proposed project would also be required to comply with all applicable YSAQMD rules and regulations, including, but not limited to, Rule 2.1, Rule 2.28, and Rule 2.5, which would help to control construction-related odorous emissions. Considering the size of the development area, construction equipment would operate at various locations throughout the project site intermittently, and the distances from the nearest sensitive receptors would allow for dispersal of diesel odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

The YSAQMD also regulates objectionable odors through Rule 2.5 (Nuisance), which prohibits any person or source from emitting air contaminants or other material that result in any of the following: cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; endanger the comfort, repose, health, or safety of any such persons or the public; or have a natural tendency to cause injury or damage to business or property. Rule 2.5 is enforced based on complaints. If complaints are received, the YSAQMD is required to investigate the complaint, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the YSAQMD would ensure that such odors are addressed, and any potential odor effects reduced to less than significant.

Dust

The proposed project is required to comply with all applicable YSAQMD rules and regulations for construction, including, but not limited to, Rule 2.1 (Control of Emissions), Rule 2.5 (Nuisance), and Rule 2.11 (Particulate Matter Concentration). Furthermore, all projects are required to implement the YSAQMD's BMPs for dust, as described in Impact 4.3-1, above. Compliance with YSAQMD rules and regulations and BMPs would help to ensure that dust is minimized during project construction. Following project construction, vehicles operating within the project site would be limited to paved areas of the site, which would not have the potential to create substantial dust emissions. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

Conclusion

For the aforementioned reasons, project construction and operations would not result in substantial emissions, such as those leading to odors or dust, which could

adversely affect a substantial number of people, and a ***less-than-significant*** impact would result.

Mitigation Measure(s)

None required.

4.3-5 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, the impact is *less than significant*.

The following discussion addresses the proposed project's potential effects related to energy demand during construction and operations.

Construction Energy Use

Construction of the proposed project would involve increased energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met through a hookup to the existing electricity grid; however, grid power would be used as opposed to diesel generators, where feasible.

Typically, at construction sites, electricity from the existing grid is used to power portable and temporary lights or office trailers. Because grid electricity would be used primarily for steady sources such as lighting, not sudden, intermittent sources such as welding or other hand-held tools, the increase in electricity usage at the site during construction would not be expected to cause any substantial peaks in demand. Construction of the proposed project, which would result in temporary increases in electricity demand, would not cause a permanent or substantial increase in demand that would exceed PG&E's demand projections or exceed the ability of PG&E's existing infrastructure to handle such an increase. Therefore, project construction would not result in any significant impacts on local or regional electricity supplies, the need for additional capacity, or on peak or base period electricity demands. In addition, standards or regulations specific to construction-related electricity usage do not currently exist.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing a five-minute limit on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. Furthermore, as a means of

reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. Engine tiers are used to describe the emissions intensity and efficiency of an engine. Construction equipment with Tier 0 or Tier 1 engines are the least efficient, and Tier 4 is the most efficient. In November 2021, the CARB began developing standards for Tier 5 engines. All fleets are currently prohibited from adding Tier 0, Tier 1, or Tier 2 vehicles to the fleet. In addition, starting January 1, 2024, fleets with a total horsepower over 2,501, excluding non-profit training centers, may not add any Tier 3 or Tier 4 Interim vehicles.[45] The In-Use Off-Road Diesel Vehicle Regulation would, therefore, help to improve fuel efficiency for equipment used in construction of the proposed project.

The CARB enforces off-road equipment regulations through their reporting system, Diesel Off-road Online Reporting System (DOORS). Each construction fleet is required to update their DOORS account within 30 days of buying or selling a vehicle, and DOORS automatically calculates the fleet average index for each fleet. The fleet average index is an indicator of a fleet's overall emission rate, and is based on each vehicle's engine horsepower and model year, and whether it is equipped with a Verified Diesel Emission Control Strategy (VDECS). If a fleet cannot, or does not want to, meet the fleet average target in a given year, the fleet may instead choose to comply with the Best Available Control Technology (BACT) requirements. A fleet may meet the BACT requirements each year by turning over or installing VDECS on a certain percentage of its total fleet horsepower. 'Turnover' means retiring a vehicle, designating a vehicle as permanent low-use (a vehicle used less than 200 hours per year), repowering a vehicle with a higher tier engine, or rebuilding the engine to a more stringent emission standard. By each compliance date (annually on January 1st), the fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the BACT requirements.[46] The project would be required to comply with such regulations, which would ensure that construction equipment meets all State efficiency requirements.

Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand on oil and limit emissions associated with construction. Over time, as technology progresses and more stringent emissions standards are put in place, construction equipment engines become increasingly efficient. Project construction would also be required to comply with all applicable YSAQMD rules and regulations, which are indirectly related to energy efficiency, which would help to further reduce energy use associated with the proposed project.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

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45 California Air Resources Board. Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation. August 29, 2023.

46 California Air Resources Board. *Frequently Asked Questions, Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation)*. August 2014.

Building Energy Demand

The proposed project would include the development of various residential and neighborhood commercial uses. Energy use associated with operation of the proposed project would be typical of such uses, requiring electricity for interior and exterior building lighting, HVAC systems, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment.

The proposed project is required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the CBSC and CARB standards, which would ensure that the future uses would be designed to be energy efficient to the maximum extent practicable. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed development on-site would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. The proposed project would also be subject to all applicable CAP measures related to energy demand, as discussed in the Regulatory Context section, above. In addition, the 2022 CBSC has begun phasing in the provision of zero net energy by requiring low-rise residential projects to meet 100 percent of their electricity needs through rooftop solar. Therefore, the low-rise residential development associated with the proposed project would include rooftop solar to meet 100 percent of each unit's electricity demand. The 2022 Building Energy Efficiency Standards also requires that newly constructed non-residential buildings, including grocery stores, offices, financial institutions, unleased tenant space, retail space, schools, warehouses, auditoriums, convention centers, hotel/motels, libraries, medical office building/clinics, and theaters, be developed to include a solar PV system. Therefore, a portion of the electricity demand associated with development of the proposed project would be met by on-site renewable energy. Furthermore, State regulations promote the generation of renewable energy and encourage energy efficiency through requirements placed on utility providers and strict development standards. For instance, the RPS requires utilities, including PG&E and VCE, to procure an increasing proportion of electricity from renewable sources. Ultimately the RPS requirements mandate that all electricity produced within the State be renewably sourced by the year 2045.

Based on the air quality modeling prepared for the proposed project, and after taking into consideration on-site renewable energy generation, the proposed project is anticipated to result in increased electricity consumption of approximately 0.85 GWh annually during operations. Compared to the electricity consumption for all of Yolo County, the proposed project's contribution would represent a 0.05 percent increase in electricity demand. Although the project would increase electricity demand in the project area, the increased demand is not anticipated to conflict with PG&E's ability to meet the RPS requirements or exceed PG&E's capacity such that the proposed project's energy demands would not be met.

Increased energy does not necessarily mean that a project would have an impact related to energy resources. Based on Appendix F of the CEQA Guidelines, a proposed project would result in an impact related to energy resources if a project

would result in the inefficient use or waste of energy. As stated above, the proposed project would be required to comply with the efficiency standards set forth in the CBSC, CALGreen Code, Building Energy Efficiency Standards, CARB, and the City's CAP, and the proposed project would not conflict or obstruct with any State or local plans related to renewable energy.

With regard to landscaping and maintenance equipment, AB 1346 requires all new small off-road engines sold after January 1, 2024 to be all-electric. By the time the project is operational, a reasonable assumption can be made that at least a portion of the landscaping and maintenance equipment that would be used on-site would be electric. Given that electricity from PG&E and VCE is partially generated from renewable sources, the use of electric landscaping and maintenance equipment would be considered more energy efficient than diesel- or gas-powered landscaping and maintenance equipment.

Transportation Energy Demand

The average fuel economy for the U.S. passenger vehicle fleet was 24.8 miles per gallon (mpg) in 2022, the most recent year such data is available.[47] In addition, petroleum refineries in the U.S. typically produce approximately 20 gallons of gasoline from one 42-gallon barrel of crude oil. Using an average of 24.8 mpg and an annual VMT of approximately 22,826,543,[48] the proposed project is estimated to result in the consumption of approximately 46,021 barrels of petroleum a year related to gasoline. California is estimated to consume approximately 605 million barrels of petroleum per year.[49] Based on the annual consumption within the State, vehicle trips generated by the proposed project would result in a 0.008 percent increase in the State's current consumption of gasoline.

The calculation above is likely an overestimate, as the estimate does not account for the increasing ownership of EVs. California leads the nation in registered alternatively-fueled and hybrid vehicles. In fact, under SB 500, the State has required that, starting in the year 2030, all cars sold shall be zero-emission/EVs. In addition, State-specific regulations encourage fuel efficiency and reduction of dependence on oil. Improvements in vehicle efficiency and fuel economy standards help to reduce consumption of gasoline and reduce the State's dependence on petroleum products. The 2022 CBSC also requires new developments to include the necessary electrical infrastructure for EV charging stations. Based on the above, the actual consumption of gasoline associated with the proposed project is anticipated to be even lower than the 0.008 percent statewide contribution noted above.

The proposed project would be required to comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, buildout of the proposed project would involve the provision of sidewalks throughout the project site,

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47 U.S. Energy Information Administration. *Total Energy, Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy*. Accessible at: https://www.eia.gov/totalenergy/data/browser/?tbl=T01.08#/?f=A&start=200001. Accessed June 2024.

48 The annual VMT estimate presented herein is based on conservative VMT data for each of the proposed land use types provided in the CalEEMod modeling.

49 U.S. Energy Information Administration. *California: State Profile and Energy Estimates*. Accessible at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA. Accessed June 2024.

as well as an on-site network of bicycle trails. The aforementioned improvements would provide pedestrian and bicycle connectivity within the project site, thereby helping to discourage driving and reduce vehicle trips and associated transportation energy demand.

Conclusion

Based on the above, the proposed project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and the proposed project is not anticipated to conflict with a State or local plan for renewable energy or energy efficiency. Thus, impacts would be considered ***less than significant***.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

A project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The geographic context for the cumulative air quality analysis includes Yolo County and surrounding areas within the portion of the SVAB that is designated nonattainment for ozone and PM_{10}.

As discussed previously, climate change occurs on a global scale, and emissions of GHGs, even from a single project, contribute to the global impact. However, due to the existing regulations within the State, for the purposes of this analysis, the geographic context for the analysis of GHG emissions presented in this EIR is the State of California.

Finally, a project's impacts related to energy use may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The following discussion of energy impacts is based on the implementation of the proposed project in combination with buildout of the adopted City of Winters General Plan. Additional detail regarding the cumulative project setting can be found in Chapter 5, Statutorily Required Sections, of this EIR.

4.3-6 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

Buildout of the proposed project would lead to the release of emissions that would contribute to the cumulative regional air quality setting. The following section includes a discussion of the proposed project's contribution to the cumulative operational emissions associated with implementation of the proposed project, and the cumulative health effects of exposure to criteria pollutants. It should be noted that because construction would occur over a relatively short time period as compared to the operational lifetime of the proposed project, construction emissions are not considered to be cumulative in nature.

Cumulative Operational Emissions

The proposed project is within an area currently designated as nonattainment for ozone, PM_{10}, and $PM_{2.5}$. By nature, air pollution is largely a cumulative impact. Thus, the proposed project, in combination with other proposed and pending projects in the region would significantly contribute to air quality effects within the SVAB, resulting in an overall significant cumulative impact. However, any single project is not sufficient enough in size to, alone, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's incremental impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, YSAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the significance thresholds, as identified by the YSAQMD and shown in Table 4.3-6 above, that project's emissions would be cumulatively considerable, resulting in a significant adverse air quality impact to the region's existing air quality conditions.[50]

Accordingly, if the proposed project would result in an increase of ROG, NO_X, or PM_{10}, in excess of the YSAQMD's cumulative-level emissions threshold, which are equivalent to the YSAQMD's project-level operational emissions thresholds, the project could potentially result in a significant incremental contribution towards cumulative air quality impacts. Similarly, the proposed project's unmitigated cumulative contribution to regional emissions is equivalent to the project's unmitigated emissions, as presented in Table 4.3-8.

As presented in Table 4.3-8, the proposed project's unmitigated operational criteria pollutant emissions would be below the YSAQMD's applicable thresholds of significance. Therefore, implementation of the proposed project would not result in a significant incremental contribution to a cumulative violation of any air quality standards, contribute substantially to an existing or projected air quality violation, or conflict with and/or obstruct implementation of the YSAQMD's air quality planning efforts.

Cumulative Health Effects of Criteria Pollutants

The AAQS presented in Table 4.3-2 are health-based standards designed to ensure safe levels of criteria pollutants that avoid specific adverse health effects. Because the YSAQMD is designated as nonattainment for ozone, PM_{10}, and $PM_{2.5}$, the YSAQMD, along with other air districts in the SVAB region, has adopted federal and State

[50] Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts* [pg. 7]. July 11, 2007. Available at: http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf. Accessed June 2024.

attainment plans to demonstrate progress towards attainment of the AAQS. Full implementation of the attainment plans would ensure that the AAQS are attained and sensitive receptors within the SVAB are not exposed to excess concentrations of criteria pollutants. The YSAQMD's thresholds of significance were established with consideration given to the health-based air quality standards established by the AAQS and are designed to aid the district in implementing the applicable attainment plans to achieve attainment of the AAQS. Thus, if a project's criteria pollutant emissions exceed the YSAQMD's mass emission thresholds of significance, a project would be considered to conflict with or obstruct implementation of the YSAQMD's air quality planning efforts, thereby delaying attainment of the AAQS. Because the AAQSs are representative of safe levels that avoid specific adverse health effects, a project's hinderance of attainment of the AAQS could be considered to contribute towards regional health effects associated with the existing nonattainment status of ozone and PM standards. However, as noted above, ascertaining cancer risk, or similar measurements of health effects from air pollutants, is very difficult for regional pollutants such as the ozone precursors ROG and NO_X, as there might be scientific limitations on an agency's ability to make the connection between air pollutant emissions and public health consequences in a credible fashion, given limitations in technical methodologies. For example, ozone concentrations depend upon various complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground level ozone concentrations related to the NAAQS and CAAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds.

Nonetheless, as discussed in Impact 4.1-2, the proposed project would not result in emissions that exceed the YSAQMD's thresholds of significance during operations. Consequently, implementation of the proposed project would not conflict with the YSAQMD's adopted attainment plans or inhibit attainment of regional AAQS, and implementation of the proposed project would not contribute towards regional health effects associated with the existing nonattainment status of ozone and PM standards.

Conclusion

Based on the above analysis, the proposed project's incremental contribution to the significant cumulative effect would be considered ***less than cumulatively considerable.***

Mitigation Measure(s)

None required.

4.3-7 Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Based on the analysis below, and with the implementation of mitigation, the project's incremental contribution to this significant cumulative impact is *cumulatively considerable* and *significant and unavoidable*.

Buildout of the proposed project would contribute to increases of GHG emissions that are associated with global climate change during construction and operation. As discussed above, the YSAQMD has not yet established or adopted any thresholds related to such. The YSAQMD is currently recommending GHG analysis consistent with the SMAQMD adopted thresholds of significance. Project consistency with such thresholds, as well as a discussion of the proposed project's consistency with the City of Winters CAP are discussed in further detail below.

Construction GHG Emissions

The estimated unmitigated maximum construction-related emissions associated with the Proposed Project Scenario are presented in Table 4.3-10.

Table 4.3-10
Maximum Unmitigated Construction GHG Emissions ($MTCO_2e$/yr)

GHG Emissions	Threshold of Significance	Exceeds Threshold?
696	1,100	**NO**

Source: CalEEMod, June 2024 (see Appendix C).

As shown in the table, the maximum annual construction-related GHG emissions associated with the proposed project would be below the SMAQMD threshold of 1,100 $MTCO_2e$/yr. Therefore, project construction would not result in a cumulatively considerable contribution to global climate change.

Operational GHG Emissions

The unmitigated maximum annual operational GHG emissions associated with the proposed project are presented in Table 4.3-11.

Table 4.3-11
Unmitigated Annual Operational GHG Emissions ($MTCO_2e$/yr)

Emission Source	Project GHG Emissions
Mobile	8,354
Area	4.63
Energy	520
Water	25.0
Waste	83.4
Refrigerants	0.64
Loss of Carbon Uptake	3,899.7
TOTAL ANNUAL GHG EMISSIONS	**12,887.4**

Note: Rounding may result in small differences in summation.

Sources:
- ***CalEEMod, June 2024 (see Appendix C); and***
- ***Sacramento County Landscape Carbon Assessment, December 2017.***

The proposed project's compliance with the SMAQMD's BMPs is discussed in further detail below.

BMP 1: No Natural Gas

In order to be consistent with BMP 1, the proposed project is required to include all electric appliances and plumbing. However, project specific information is not available to ensure that the proposed project would be designed and constructed without natural gas infrastructure. In addition, the complete prohibition of natural gas may be infeasible for the proposed project, as natural gas could be used for cooking appliances in restaurant uses allowed within the C-1 district that the commercial areas of the project site are zoned. According to the SMAQMD's guidance, a project would not conflict with BMP 1 if an equivalent reduction in GHG emissions can be demonstrated elsewhere. Therefore, in order to offset on-site natural gas usage, the proposed project would be required to implement GHG reduction measures as deemed feasible by the City, such as the inclusion of pre-wiring to allow for the future retrofit of natural gas appliances with all-electric appliances. Without the inclusion of feasible GHG reduction measures, operation of the proposed project would not comply with BMP 1. As such, compliance with such requirements would be ensured by Mitigation Measure 4.3-7(a).

In addition, it should be noted that, as discussed above, the potential exists that a challenge could be brought forth in the future and a future court decision could find that all-electric mitigation requirements or GHG emissions thresholds are preempted for covered appliances. The feasibility of BMP 1 also relies on the adequate availability of electricity at the time of development. Therefore, to conservatively address the possibility that implementation of BMP 1 may not be enforceable or commercially feasible at the time of development for certain project components, the use of GHG/carbon offsets is included in Mitigation Measure 4.3-7(a) to ensure that any natural gas usage associated with the proposed project due the unenforceability of the prohibition of natural gas or commercial infeasibility of all electric is adequately offset at the time of project development.

BMP 2: EV-Ready

Consistent with BMP 2, the EV Ready parking spaces would be required to be provided within the project site at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces (see Table 4.3-12). However, project specific information is not available to ensure that the proposed project would be designed to include the required number of EV Ready and Electric Vehicle Support Equipment (EVSE) spaces. Therefore, compliance with BMP 2 would be ensured by Mitigation Measure 4.3-7(a).

BMP 3: 15 Percent Reduction in VMT

Even with implementation of BMPs 1 and 2, the project would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3.

Consistency with BMP 3 is evaluated in Chapter 4.9, Transportation, of this EIR. As presented therein, while the proposed project's retail component would be considered local serving, and therefore, would result in a less-than-significant impact related to VMT, the project's residential component is estimated to generate approximately 30.69 residential VMT per capita, which would exceed a level of 15 percent below the existing regional VMT per capita. Therefore, without mitigation, the proposed project would conflict with BMP 3.

Table 4.3-12
EV Ready Parking Space Requirements

Land Use Type	Requirements for New Construction		
1-2 family dwelling units/townhouses[1]	Each dwelling unit shall have a listed raceway to accommodate a dedicated 208/40-volt branch circuit		
Multifamily dwelling units, hotels, and motels[2]	55 percent of total parking spaces shall be EV Ready, and 20 percent of spaces shall have Level 2 EV Chargers		
Nonresidential[3]	**Total Number of Parking Spaces**	**EV Ready Spaces**	**EVSE Spaces**
	0-9	3	0
	10.25	8	3
	26-50	17	6
	51-75	28	9
	76-100	40	13
	101-150	57	19
	151-200	79	26
	201 and over	45 percent of actual parking spaces	33 percent of EV Ready Spaces

Sources:
1. ***2022 CalGreen Code Section A4.106.8.1.***
2. ***2022 CalGreen Code Section A4.106.8.2.***
3. ***2022 CalGreen Code Table A5.106.5.3.3.***

Consistency with City of Winters CAP

As discussed above, the City of Winters adopted a CAP in July of 2021, which is intended to guide reduction of GHG emissions associated with existing operations and future development in the City.[51] However, the Winters CAP does not include quantitative thresholds to assess a project's compliance with the CAP. As such, the City of Winters CAP is not considered a qualified GHG reduction plan under Section 15183.5 of the CEQA Guidelines.

Nonetheless, the Winters CAP identifies workable climate change abatement and mitigation strategies for the City, residents, and local businesses related to Mobility, Water and Waste, Building and Infrastructure, Urban Forest and Open Space, and Municipal Operations, and provides Actions related to each topic to help reduce GHG emission related to such. The majority of the GHG reduction Actions included within the City's CAP are targeted for implementation at the City level; however, the proposed project would implement several key policies and goals applicable to the project.

For example, CAP Action 35 encourages mixed use development for vacant lots, new development, and redevelopment projects. As discussed throughout this EIR, the proposed project would consist of various residential uses, including a subdivided 183-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex, as well as two commercial lots totaling 6.7 acres and 6.1 total acres of park uses. Therefore, the proposed project would be considered a mixed-use development and would generally comply with Action 35.

51 City of Winters. *2021 Final Winters Climate Action Plan*. July 20, 2021.

In addition, Actions 26, 27 32, 40, and 45 require that new projects promote walking, bicycling, and transit by providing adequate alternative transportation infrastructure and facilities. As discussed in Chapter 4.9, Transportation, of this EIR, the proposed project would include the construction of a new bus stop and turnout on westbound SR 128 west of East Main Street. In addition, the proposed project would construct several bicycle and/or pedestrian facilities within the project area, consistent with the City's Bikeway System Master Plan and the Grant Avenue Design Guidelines. The proposed project would also be required to comply with Mitigation Measures 4.9-1(a) and 4.9-1(b) included in this EIR, which would require additional alternative transportation improvements within the project area to ensure pedestrian and cyclist safety.

Finally, CAP Action 85 requires all new construction to have a portion of the development's energy usage be renewable. As discussed above, the 2022 CBSC, with which the project would be required to comply, has begun phasing in the provision of zero net energy by requiring residential projects to meet 100 percent of their electricity needs through rooftop solar, and requiring new non-residential buildings to be solar ready. It should also be noted that due to the rural nature of the project area, and the amount of landscaping and park uses proposed on-site, urban heat island effects associated with the proposed project would be minimal.

Based on the above, the proposed project would generally comply with the City of Winters CAP.

Conclusion

Based on the analysis above, the proposed project could be considered to generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Consequently, the project could result in a cumulatively considerable incremental contribution to GHG emissions or climate change and the project's impact would be ***significant***.

Mitigation Measure(s)

As discussed above, project specific information is not available to ensure that the proposed project would be designed and constructed without natural gas infrastructure, or to ensure that the proposed project would be designed to include the required number of EV Ready spaces. As such, Mitigation Measure 4.3-7(a) would ensure project compliance with SMAQMD BMP 1 and BMP 2.

As discussed further in Chapter 4.9, Transportation, of this EIR, implementation of the measures required by Mitigation Measure 4.9-2 would reduce project VMT, but not to a level that would achieve 15 percent less than the regional average VMT. Therefore, even with implementation of Mitigation Measure 4.9-2, the project would not comply with BMP 3. Consequently, the project's incremental contribution to the cumulatively significant effects of GHG emissions and global climate change would remain *cumulatively considerable* and *significant and unavoidable*.

4.3-7(a) The following requirements shall be noted on project improvement plans, subject to review and approval by the City of Winters Community Development Department:

- *The proposed project shall be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; and*
- *The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces.*

If the use of all-electric for any project component(s) (e.g., an appliance) is not enforceable or commercially feasible at the time of issuance of building permit, the applicant shall be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric. The emissions from the use of natural gas shall be calculated by a qualified professional utilizing YSAQMD-, CARB-, or the USEPA-approved emissions models and quantification methods available and submitted to the City for review and approval, which shall include third-party review by a qualified consultant of the City's selection and be subject to applicant reimbursement of consultant costs.

Any and all GHG credits to off-set for the use of natural gas must be created through a CARB-approved registry. These registries are currently the ACR, CAR, and Verra, although CARB may accredit additional registries in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. The selected protocol must demonstrate that the GHG-emissions reductions are real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR 95802(a) are provided below.

(1) Real: GHG reductions or enhancements result from a demonstrable action or set of actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the [GHG credit] project boundary and account for uncertainty and the potential for activity-shifting and market-shifting leakage.
(2) Additional: GHG reductions or removals that exceed any GHG reduction, or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario.

(3) Permanent: GHG reductions and removal enhancements are not reversible or, when GHG reductions and GHG-removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG-emission reductions and GHG-removal enhancements to ensure that all credited reductions endure for at least 100 years.

(4) Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG-removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the [GHG credit] project boundary, while accounting for uncertainty. activity-shifting, and market-shifting leakage.

(5) Verifiable: A [GHG credit] project report assertion is well-documented and transparent such that it lends itself to an objective review by an accredited verification body.

(6) Enforceable: The authority for CARB to hold a particular party liable and take appropriate action if any of the provisions of this article are violated. Note that this definition of enforceability is specific to the Cap-and-Trade regulation, where CARB holds enforcement authority, but this measure will employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and backed by a legal instrument or contract that defines exclusive ownership.

Geographic Prioritization of GHG Credits

GHG credits from reduction projects in the City will be prioritized before projects in larger geographies (i.e., northern California, California, United States, and international). The applicant will inform brokers of the required geographic prioritization for the procurement of GHG credits. GHG credits from reduction projects identified in the City that are of equal or lesser cost compared to the settlement price of the latest Cap-and-Trade auction must be included in the transaction. GHG credits from reduction projects outside of the City may be purchased if adequate credits cannot be found in the City or if they exceed the maximum price identified above. The economic and geographic analysis undertaken to inform the selection of GHG credits must be provided by the applicant to the City as part of the required documentation discussed below under Plan Implementation and Reporting.

Types of GHG Credits

GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project-generated emissions at any time. GHG credits from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of

FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated through a prorated surcharge of additional FMUs proportional to the effect of the delay. Because emissions of CO_2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10 percent for every year of lag between project emissions and their reduction through a FMU will be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 metric ton of project GHG emissions generated in the year prior to funding and implementation of the FMU).

Verification and Independent Review of GHG Credits
All GHG credits will be verified by an independent verifier accredited by the ANSI National Accreditation Board (ANAB) or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the accreditation board (i.e., ANAB or CARB), the verifier will certify the following.

- *GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. Verification of the latter requires certification that the credits meet or exceed the standards in 17 CCR 95972.*
- *GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.*
- *GHG credits are purchased according to the geographic prioritization standard defined in this measure under Geographic Prioritization of GHG Credits.*

Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that will result from future projects, additional verification must occur beyond initial certification is required. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification will examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. The applicant will retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project.

4.3-7(b) Implement Mitigation Measure 4.9-2.

4.3-8 Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, the impact is *less than cumulatively considerable.*

Impact 4.3-5 discusses the consumption of energy on a project level, within the context of existing State plans and regulations. As discussed previously, the project would

involve consumption of diesel, gasoline, natural gas, and electricity throughout construction and operations. However, all proposed structures would be built in compliance with existing statewide mandatory energy efficiency standards, such as those contained in the California Building Energy Efficiency Standards and the CALGreen Code. Compliance with the energy efficiency standards would reduce the amount of electricity consumed by the proposed development. State regulations would also help to reduce the amount of energy consumed by on-road vehicles over time. For instance, State and federal emissions standards and fuel economy standards result in increased fuel efficiency for on-road vehicles. Overall, as concluded above, the proposed project would result in a less-than-significant impact related to the inefficient or wasteful use of energy or conflicting with a State or local plan for renewable energy or energy efficiency. Furthermore, EV charging stations would be required to be implemented on-site, as required by the 2022 CBSC and Mitigation Measure 4.3-7(a) of this EIR, which would help to further reduce transportation energy use associated with the proposed project.

Similar to the proposed project, all future development within the City of Winters would be required to comply with applicable State and local regulations related to energy efficiency. Increased efficiency would be ensured in the future as cumulative development occurs due to compliance with the State's robust energy efficiency requirements. For example, pursuant to 2022 CBSC, new residential buildings associated with cumulative development would be required to meet 100 percent of their electricity needs through rooftop solar, and new non-residential buildings associated with cumulative development would be required to be solar ready. Furthermore, energy efficiency regulations have been getting progressively more stringent over time. Thus, as cumulative development occurs under the increasingly stringent regulations, the energy use associated with such cumulative development is anticipated to be increasingly energy efficient over time as well.

Based on the above, implementation of the project in combination with other cumulative development in the project region would not result in the wasteful or inefficient use of energy. Because the project would not conflict with a local plan to increase energy efficiency and reduce energy consumption, a ***less-than-cumulatively-considerable*** impact would occur.

Mitigation Measure(s)

None required.

4.4 Biological Resources

4.4 BIOLOGICAL RESOURCES

4.4.1 INTRODUCTION

The Biological Resources chapter of the EIR evaluates the biological resources known to occur or potentially occur within the project site. The chapter describes the proposed project's potential impacts to biological resources and identifies measures to eliminate or substantially reduce impacts to a less-than-significant level. Existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities are discussed for the project region. The information contained in the analysis is primarily based on a Special-Status Plant Survey Report (see Appendix D of this EIR)[1] and an updated Special-Status Plant Survey Results Memorandum prepared for the proposed project by Madrone Ecological Consulting (Madrone) (see Appendix E of this EIR).[2] Raney Planning & Management, Inc. conducted a query of the California Natural Diversity Database (CNDDB) for special-status species known to occur within the project vicinity (see Appendix F of this EIR).[3] Additionally, Madrone prepared a Valley Elderberry Longhorn Beetle Habitat Survey Report (VELB Habitat Report) (see Appendix G of this EIR),[4] a Federal Endangered Species Act (FESA) Documentation Memorandum (see Appendix H of this EIR),[5] and an Aquatic Resources Delineation (ARD) (see Appendix I of this EIR) for the proposed project.[6] Further information was sourced from the Winters General Plan[7] and associated General Plan EIR,[8] and the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).[9]

It should be noted that in response to the Notice of Preparation (NOP), the City received comments related to biological resources. The comments have been carefully reviewed and considered by the City of Winters. With regard to potential impacts to salmon in Putah Creek, given the distance of the project site from Putah Creek, and the results of the CNDDB query conducted for the project area, impacts associated with the proposed project are not anticipated to occur. In addition, potential impacts related to project-generated light and glare on the surrounding existing environment are discussed in Chapter 4.1, Aesthetics, of this EIR. Therefore, further discussion of the aforementioned topics is not included herein.

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1 Madrone Ecological Consulting. *Special-Status Plant Survey Report: Winters 61, Yolo County, California*. June 2018.
2 Madrone Ecological Consulting. *Winters 61 – 2023 Special-Status Plant Survey Results*. May 26, 2023.
3 California Department of Fish and Wildlife. *California Natural Diversity Database Rarefind 5*. Available at: https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx. Accessed November 2023.
4 Madrone Ecological Consulting. *Valley Elderberry Longhorn Beetle Habitat Survey Report: Winters 61, Yolo County, California*. June 2023.
5 Madrone Ecological Consulting. *Winters 61 FESA Documentation*. November 30, 2020
6 Madrone Ecological Consulting. *Revised Winters 61 Aquatic Resources Delineation in the City of Winters, Yolo County, California (SPK-2018-0582)*. December 10, 2020.
7 City of Winters. *The City of Winters General Plan Policy Document*. Adopted May 19, 1992.
8 City of Winters. *City of Winters General Plan Final Environmental Impact Report*. Certified May 1992.
9 Yolo Habitat Conservancy. *Yolo Habitat Conservation Plan/Natural Community Conservation Plan*. April 2018.

4.4.2 EXISTING ENVIRONMENTAL SETTING

The following sections describe the regional biological setting in which the project site is located, the biological setting of the project site, and the special-status species known to occur within the project site and surrounding environs.

Regional Setting

The project site is located to the northwest of the intersection of State Route (SR) 128 and Timber Crest Road in the City of Winters, California. The City of Winters is located in southwestern Yolo County along the border of Solano County and encompasses approximately 2.9 square miles. Historically, the natural vegetation pattern in the Winters region consisted of native valley grasslands with scattered oaks and brush along the drainage ways and foothills to the west. Extensive riparian woodland and scrub existed along Putah and Dry creeks.

The current patterns of vegetation in and surrounding the City are predominantly man-made, due to clearing, cultivation and settlement. The undeveloped portions of the City's planning area are characterized by scattered home sites, cultivated cropland, orchards, pasture, vacant land, and limited urban uses. Hay, grain, and row crops (e.g., alfalfa, wheat, tomatoes) dominate the area. Orchards, planted primarily with walnut trees, are more dominant to the south and west of the City. Common plant species along the borders of fields and fallow land include alfalfa, rye grass, barley, wild oats, wheat, Johnson grass, blackberry, burr clover, sweet clover, turkey mullein, watergrass, filaree, Jana vetch, lupine, yellow mustard, buttercup, California poppy, valley live oak and eucalyptus.

Less human influence has been exerted on the strips of land immediately adjacent to Putah Creek, Dry Creek, and a few steeper slopes northwest of the City. Riparian woodland and wetland habitat is found along Putah Creek, a perennial watercourse which forms the southern boundary of the City and the City's planning area. Riparian habitat along the lower reaches of Dry Creek is less extensive, due to its intermittent flow and the encroachment of adjacent agricultural and residential development. The east bank within the planning area is nearly completely developed with old neighborhoods and new subdivisions. A band of valley oak, cottonwood, black walnut, and willow occurs along the west bank, beyond which lie walnut orchards and cultivated fields.

The wildlife in the Winters area is typical of that which would be found in a small community surrounded by agricultural lands. The riparian woodland and wetlands along Putah Creek provide the most important wildlife habitat in the planning area due to the density and diversity of the flora, fairly undisturbed conditions, and perennial surface water flows. The riparian corridor provides foraging, cover, and nesting habitat, and migratory corridor for a wide variety of mammals, fish, water birds, raptors, and passerine birds.

Project Setting

The project site consists of a 61.9-acre undeveloped, agricultural field that is currently used for annual row crops. The site is bordered by SR 128 on the south and commercial and single-family residential development on the west. Based on a review of historic aerial photographs, the site appears to have been farmed for several decades, with the ground periodically tilled for row crops, hay, or other dry farming purposes. Vegetation within the project site consists primarily of ruderal non-native species including alfalfa *(Medicago sativa*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), perennial rye grass (*Festuca perennis*), and slender wild oat (*Avena barbata*). As discussed further below in the Trees section, the project site contains numerous trees and shrubs along the perimeter.

Yolo HCP/NCCP Land Cover Types

The following three Yolo HCP/NCCP land cover types occur within the project site: Cultivated Land, Semiagricultural/Incidental to Agriculture, and Lacustrine and Riverine. The land cover types are shown in Figure 4.4-1 and are discussed in further detail below.

Cultivated Land

The majority of the project site is comprised of Cultivated Land Yolo HCP/NCCP land cover. Pursuant to the Yolo HCP/NCCP, the Cultivated Land seminatural community consists of non-rangeland agricultural crops that provide habitat for Covered Species. Cultivated Land provides important habitat value, with various species depending on or benefiting from agricultural operations on croplands, such as tilling, harvesting, or crop rotations.

Semiagricultural/Incidental to Agriculture

A portion of the project site, primarily along the boundaries of the site, is comprised of Semiagricultural/Incidental to Agriculture land cover. Semiagricultural areas include livestock feedlots, farm steads, and miscellaneous semiagricultural features such as small roads, ditches, and unplanted areas of cropped fields, such as field edges.

Lacustrine and Riverine

A segment of Lacustrine and Riverine land cover is located in the northern portion of the project site, which is associated with the former segment of Willow Canal. According to the Yolo HCP/NCCP, the Lacustrine and Riverine land cover includes a variety of lakes, reservoirs, and ponds (lacustrine); rivers and streams (riverine); and other open-water land cover types, such as stock ponds, stormwater detention ponds, and wastewater treatment ponds. Perennially aquatic natural communities usually support fish, which may affect suitability for invertebrates, amphibians, and some reptiles, while seasonal riverine natural communities may contain unique assemblages of fish. The Lacustrine and Riverine land cover supports algae, mosses, and aquatic plants.

It should be noted that a segment of Willow Canal was previously located within the northeastern edge of the project site. As discussed further below, the Willow Canal was replaced with an underground pipe in 2013. Therefore, aquatic resources do not currently exist in the northern portion of the project site.

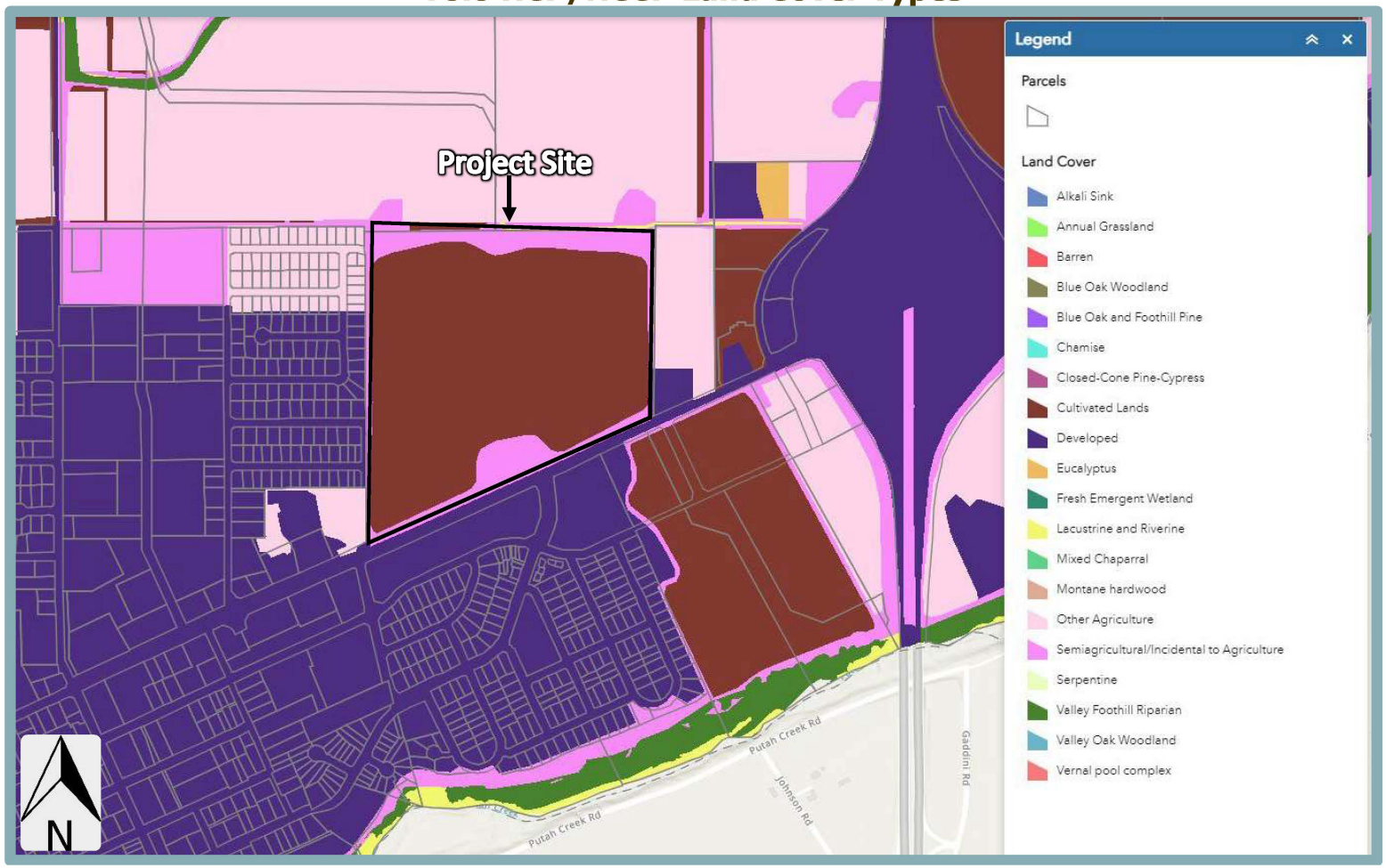
Aquatic Resources

A total of 0.086-acre of aquatic resources were mapped within the project site and off-site areas to the south of the site as part of two ARDs conducted by Madrone (see Figure 4.4-2), which are discussed further below.

Roadside Ditch

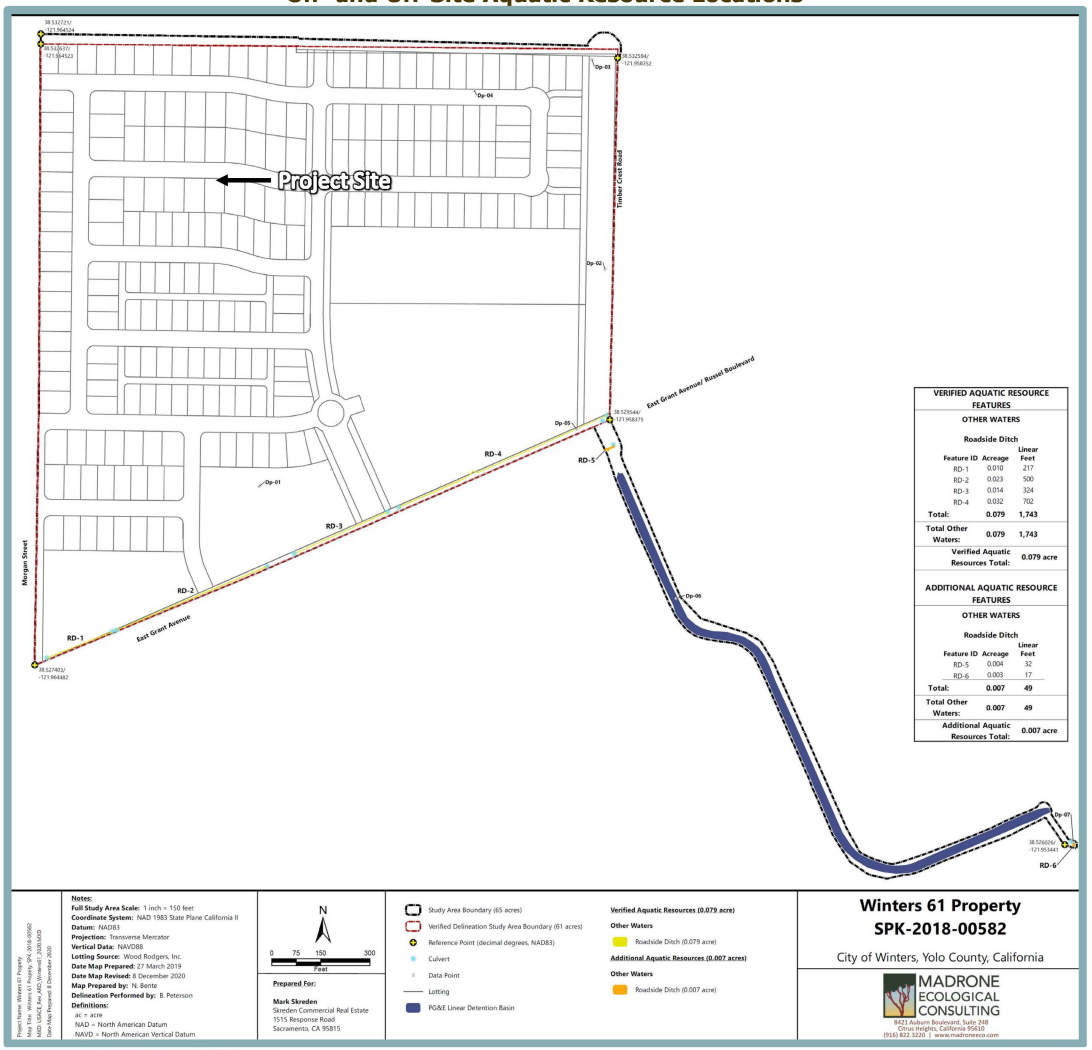
An approximately 0.079-acre roadside ditch parallel to SR 128 (also known as East Grant Avenue) was mapped within the project site during an ARD conducted by Madrone in February 2018. Four ditch segments, identified as RD-1, RD-2, RD-3, and RD-4, are located along the southern boundary of the project site, with culverts at driveways and existing crossings. A culvert located under SR 128, near the southeast corner of the project site, connects flows from the roadside ditch to the off-site Pacific Gas & Electric Company (PG&E) detention basin to the south of the site, across SR 128.

Figure 4.4-1
Yolo HCP/NCCP Land Cover Types



Source: Yolo Habitat Conservancy Geomapper, June 2024.

Figure 4.4-2
On- and Off-Site Aquatic Resource Locations



The ditch consists predominantly of upland plants, such as black mustard and Johnson grass (*Sorghum halepense*). Deeper parts of the ditch have a more-even mix of upland and facultative species, including fiddle dock (*Rumex pulcher*) and perennial rye grass.

Madrone requested a jurisdictional determination of the project site from the U.S. Army Corps of Engineers (USACE) on November 5, 2018. A Jurisdictional Determination Verification Letter was issued by the USACE on March 29, 2019, under File Number SPK-2018-00582, which concurred with Madrone's ARD and confirmed that the 0.079-acre of on-site roadside ditch are not waters of the U.S. and not subject to Section 404 of the Clean Water Act (CWA).

Additionally, the project site contains several abandoned, discontinuous unmapped irrigation features that historically received irrigation water from the previous alignment of the Willow Canal drainage ditch that was present across a portion of the northern boundary of the parcel until it was replaced with an underground pipe in 2013. The abandoned irrigation features located in upland areas, identified as DP-01 in Figure 4.4-2, are shallow, without bed or banks, discernable flow, or Ordinary High-Water Mark (OHWM) field indicators, and are completely overgrown with upland species. The abandoned irrigation features are non-jurisdictional features.[12]

Pacific Gas & Electric Company Detention Basin

A culvert located under SR 128 near the southeast corner of the project site, conveys flows from the on-site roadside ditch to an off-site detention basin owned by PG&E. The PG&E detention basin was installed in 2016 as part of the development of the adjacent PG&E Gas Safety Facility located east of the ditch, to collect and temporarily detain stormwater flows from the roadside ditches along SR 128, the PG&E Gas Safety Academy, and surrounding planned future development, consistent with the City of Winters Storm Drain Master Plan. The PG&E detention basin is an approximately 60-foot-wide aquatic feature with a flat bottom and 3:1 sloped sides. Currently, the PG&E detention basin extends south from SR 128 to a ditch along Interstate 505 (I-505), which is concrete-lined and ultimately flows into Putah Creek.

Multiple culvert outlets are located along the PG&E detention basin, and at each culvert location the detention basin is lined with rip rap. The detention basin does not exhibit any hydrology indicators, lacking evidence of flow or scour, and is designed to temporarily detain flows from the majority of rain events. Habitats within the detention basin are dominated by upland annual vegetation, including lesser canary grass (*Phalaris minor*), yellow star thistle (*Centaurea solstitialis*), stinkwort (*Dittrichia graveolens*), and blue wild rye (*Elymus glaucus*). Side slopes of the ditch are dominated primarily by wild oats (*Avena* sp.). Vegetation growing out of cracks in the concrete apron of the I-505 ditch includes black mustard (*Brassica nigra*), Johnsongrass (*Sorghum halepense*), winter vetch (*Vicia villosa*), and rough cocklebur (*Xanthium strumarium*). As shown in Figure 4.4-2, a total of 0.007-acre of roadside ditch is located within the PG&E detention basin and I-505 ditch and are identified as RD-5, an upland drainage ditch, and RD-6, a concrete-lined upland drainage ditch.

Madrone requested a jurisdictional determination of the off-site areas associated with the PG&E detention basin and I-505 ditch from USACE on September 3, 2021. A Jurisdictional Determination Verification Letter was issued by the USACE on April 27, 2022, under File Number SPK-2018-00582, which concurred with Madrone's ARD and confirmed that the 0.007-acre of aquatic resources, consisting of approximately 0.004-acre of RD-5 and approximately 0.003-acre

[12] U.S. Army Corp of Engineers. *Interim Approved Jurisdictional Determination Form*. November 29, 2018.

of RD-6, are not waters of the U.S. regulated under Section 404 of the Clean Water Act or under Section 10 of the Rivers and Harbors Act.[13]

Special-Status Species

Special-status species are species that have been listed as threatened or endangered under the FESA, California Endangered Species Act (CESA), or are of special concern to federal resource agencies, the State, or private conservation organizations. A species may be considered to have special status due to declining populations, vulnerability to habitat change, or restricted distributions. A general description of the criteria and laws pertaining to special-status classifications is described below.

Special-status plant and wildlife species may meet one or more of the following criteria:

1. Listed as threatened or endangered, or proposed or candidates for listing by the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS);
2. Listed as threatened or endangered and candidates for listing by the California Department of Fish and Wildlife (CDFW);
3. Identified as Fully Protected species, Species of Special Concern, or Watch List species by CDFW;
4. Identified as a Bird of Conservation Concern by the USFWS;
5. Identified as Medium or High priority species by the Western Bat Working Group (WBWG);
6. Plant species considered to be rare, threatened, or endangered in California by the California Native Plant Society (CNPS) and CDFW (California Rare Plant Rank [CRPR] 1, 2, and 3):
    a. CRPR 1A: Plants presumed extinct.
    b. CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
    c. CRPR 2A: Plants extirpated in California, but common elsewhere.
    d. CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
    e. CRPR 3: Plants about which the CNPS needs more information – a review list.
7. Identified as a Covered Species in the Yolo HCP/NCCP.

Listed and Special-Status Plants

As discussed further in the Method of Analysis section of this chapter, a list of special-status plant species with potential to occur in the project site and off-site detention basin (study area) was developed by Madrone, from which the following three plants were identified as target species: bearded popcornflower, dwarf downingia; and recurved larkspur. None were observed during the April 13, 2018 or April 26, 2023 special-status plant surveys. Each are discussed further below.

Recurved Larkspur

Recurved larkspur (*Delphinium recurvatum*) is not federally or State-listed, but is classified as a CRPR List 1B.2 plant. The species is not a Yolo HCP/NCCP Covered Species. Recurved larkspur grows in chenopod scrub, cismontane woodland, and valley and foothill grassland at elevations between approximately five and 2,600 feet above mean sea level (amsl). The perennial herb favors alkaline soils and blooms from March to June. The on-site agricultural areas with non-

[13] U.S. Army Corp of Engineers, Sacramento District. *Approved Jurisdictional Determination Verification Letter*. April 27, 2022.

native grassland provides extremely marginal habitat for the species. The species was not observed during the 2018 or 2023 special-status plant surveys of the study area.

Dwarf Downingia

Dwarf downingia (*Downingia pusilla*) is not federally or State-listed, but is classified as a CRPR List 2B.2 plant. The species is not a Yolo HCP/NCCP Covered Species. Dwarf downingia grows in mesic valley and foothill grassland and in vernal pools at elevations between sea level and approximately 1,460 feet amsl. The annual herb blooms from March to May. The deeper portions of the on-site roadside ditch provide extremely marginal habitat for the species. The species was not observed during the 2018 or 2023 special-status plant surveys of the study area.

Bearded Popcornflower

Bearded popcornflower (*Plagiobothrys hystriculus*) is not federally or State-listed, but is classified as a CRPR List 1B.1 plant. The species is not a Yolo HCP/NCCP Covered Species. The annual herb is often found in vernal swales and along vernal pool margins, as well as in mesic valley and foothill grassland habitat. Bearded popcornflower occurs at elevations ranging from sea level to 900 feet amsl, and blooms from April through May. The deeper portions of the on-site roadside ditch provide extremely marginal habitat for the species. The species was not observed during the 2018 or 2023 special-status plant surveys of the study area.

Listed and Special-Status Wildlife

Based on a review of the reports prepared for the proposed project, as well as a query of the CNDDB, 19 special-status wildlife species were determined to have the potential to occur within the query area, which encompassed the U.S. Geological Survey (USGS) Winters quadrangle, as well as the eight surrounding quadrangles. Based on habitat requirements, 10 of the 19 total species are considered to have potential to occur within the study area, including northwestern pond turtle, giant garter snake, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, western red bat, pallid bat, and American badger.

Table 4.4-1 lists all 19 special-status wildlife species that have the potential to occur within the query area. The following discussions provide further details of the 10 special-status wildlife species with potential to occur within the study area.

Northwestern Pond Turtle

The northwestern pond turtle (*Emys marmorata*) is not listed under FESA or CESA. The species is a CDFW Species of Special Concern and a Yolo HCP/NCCP Covered Species. Northwestern pond turtle's favored habitats include streams, large rivers, and canals with slow-moving water, aquatic vegetation, and open basking sites. Although the turtles must live near water, they can tolerate drought by burrowing into the muddy beds of dried drainages. The species feeds mainly on invertebrates, such as insects and worms, but will also consume small fish, frogs, mammals, and some plants. Northwestern pond turtle predators include raccoons, coyotes, raptors, weasels, large fish, and bullfrogs. The species breeds from mid to late spring in adjacent open grasslands or sandy banks.

The on-site roadside ditch provides marginal habitat for the species. Based on the above, northwestern pond turtle has potential to occur within the study area.

Table 4.4-1
On-Site Special-Status Wildlife Species

Scientific Name (Common Name)	Federal Status	State Status	Yolo HCP/NCCP Covered Species?	Habitat Requirements	Potential for Occurrence
Invertebrates					
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	--	No	Occurs in vernal pools.	**No.** Potential habitat not present within study area.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	--	Yes	Dependent upon elderberry *(Sambucus* sp.) shrubs as primary host species.	**No.** Elderberry shrubs were not observed on-site during the April 26, 2023 field survey.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FT	--	No	Occurs in vernal pools.	**No.** Potential habitat not present within study area.
Amphibians and Reptiles					
California tiger salamander (*Ambystoma californiense*)	FT	CT	Yes	Breeds in ponds or other deeply ponded wetlands, and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging.	**No.** Potential habitat not present within study area.
Northwestern pond turtle (*Emys marmorata*)	--	CSC	Yes	Occurs in ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	**Yes.** The roadside ditch provides potential habitat for the species.
Giant garter snake (*Thamnophis gigas*)	FT	CT	Yes	Found in rivers, canals, irrigation ditches, rice fields, and other aquatic habitats with slow-moving water and heavy emergent vegetation.	**Yes.** The roadside ditch provides potential habitat for the species.
Birds					
American peregrine falcon (*Falco peregrinus anatum*)	--	CFP	No	Year-round resident and winter visitor. Occurs in a wide variety of habitats, though often associated with coasts, bays, marshes and other bodies of water. Nests on protected cliffs and also on man-made structures including buildings and bridges. Preys on birds, especially waterbirds. Forages widely.	**No.** Potential habitat not present within study area.

(Continued on next page)

Table 4.4-1
On-Site Special-Status Wildlife Species

Scientific Name (Common Name)	Federal Status	State Status	Yolo HCP/NCCP Covered Species?	Habitat Requirements	Potential for Occurrence
Bank swallow (*Riparia riparia*)	--	CT	No	Found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period. In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils.	**No.** Potential habitat not present within study area.
Tricolored blackbird (*Agelaius tricolor*)	--	CT, CSC	Yes	Occurs locally throughout Central Valley and in coastal districts. Breeds near freshwater, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs. Feeds in grassland and cropland habitats. Breeds locally in northeastern California.	**Yes.** Agricultural field on-site could provide foraging habitat, and the roadside ditch could provide potential nesting habitat.
Burrowing owl (*Athene cunicularia*)	--	CSC	Yes	Nests in man-made refugia and abandoned mammal burrows associated with open grassland habitats.	**Yes.** Potential habitat is present on-site.
Swainson's hawk (*Buteo swainsoni*)	--	CT	Yes	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures.	**Yes.** On-site non-native grasslands could provide potential foraging habitat, and trees along perimeter of project site could provide potential nesting habitat.
Northern harrier (*Circus cyaneus*)	--	CSC	No	Nests in emergent wetland/marsh, open grasslands, or savannah habitats. Forages in open areas such as marshes, agricultural fields, and grasslands.	**Yes.** On-site non-native grasslands could provide potential foraging habitat, and trees along perimeter of project site could provide potential nesting habitat.

(Continued on next page)



Table 4.4-1
On-Site Special-Status Wildlife Species

Scientific Name (Common Name)	Federal Status	State Status	Yolo HCP/NCCP Covered Species?	Habitat Requirements	Potential for Occurrence
Western yellow-billed cuckoo (*Coccyzus americanus occidetalis*)	FT	CE	Yes	Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, adjacent to slow-moving waterways, backwaters, or seeps.	**No.** Potential habitat not present within study area.
White-tailed kite (*Elanus leucurus*)	--	CFP	Yes	Common to uncommon, yearlong resident in coastal and valley lowlands. Rarely found away from agricultural areas. Inhabits herbaceous and open stages of most habitats, mostly in cismontane California.	**Yes.** On-site non-native grasslands could provide potential foraging habitat, and trees along perimeter of project site could provide potential nesting habitat.
Yellow-breasted chat (*Icteria virens*)	--	CSC	No	Occurs in riparian forest, riparian scrub, and riparian woodland.	**No.** Potential habitat not present within study area.
Mammals					
Western red bat (*Lasiurus blossevilii*)	--	CSC, WBWG H	No	Roosts primarily in the foliage of trees or in shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. The species may associate with intact riparian habitat, particularly willows, cottonwoods, and sycamores.	**Yes.** Potential foraging in agricultural fields. Trees within the study area provide potential roosting habitat for the species.
Pallid bat (*Antrozous palidus*)	--	CSC, WBWG H	No	Roosts in crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating bark, deciduous trees in riparian areas, and fruit trees in orchards), bridges, barns, porches, bat boxes, and human-occupied, as well as vacant, buildings.	**Yes.** Potential foraging in agricultural fields. Trees within the study area provide potential roosting habitat for the species.
Townsend's big-eared bat (*Corynorhinus Townsendii*)	--	CSC, WBWG H	No	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of coast redwoods and giant sequoias. Extremely sensitive to human disturbance.	**No.** Potential habitat not present within study area.

(Continued on next page)

Table 4.4-1
On-Site Special-Status Wildlife Species

Scientific Name (Common Name)	Federal Status	State Status	Yolo HCP/NCCP Covered Species?	Habitat Requirements	Potential for Occurrence
American badger (*Taxidea taxus*)	--	CSC	No	The species prefers dry open fields, grasslands, and pastures.	**Yes.** The on-site non-native grasslands within the study area provide potential habitat for the species.

CC: CDFW Candidate for Listing
CE: CDFW Endangered
CFP: CDFW Fully Protected
CRPR: California Rare Plant Rank
CR: California Rare
CT: CDFW Threatened
FC: Federal Candidate for Listing
FPT: Federal Proposed Threatened
FD: Federally Delisted
CSC: CDFW Species of Special Concern
FT: Federally Threatened
WBWG M: Western Bat Working Group Medium Threat Rank
WBWG H: Western Bat Working Group High Threat Rank
FE: Federally Endangered

Sources: Raney Planning & Management, Inc., 2023; Madrone Ecological Consulting, 2020.

Giant Garter Snake

The giant garter snake (*Thamnophis gigas*) is listed as threatened pursuant to FESA and is a Yolo HCP/NCCP Covered Species. The historic range of giant garter snake extended from the vicinity of Sacramento and Contra Costa counties southward to Buena Vista Lake, near the City of Bakersfield in Kern County; however, by the 1950s, agricultural conversion appeared to have resulted in the extirpation of the species from the southern third of its range. Currently, the range of the species is restricted to rice-production zones of Sacramento, Sutter, Butte, Colusa, and Glenn counties, portions of Yolo County, and along the eastern fringes of the Sacramento-San Joaquin River Delta.

Giant garter snakes inhabit marshes, sloughs, ponds, small lakes, low-gradient streams, other waterways, and agricultural wetlands, including irrigation canals, drainage canals, and rice fields. Habitat requirements for giant garter snake include adequate water during the snake's active period (from early spring to mid-fall), emergent herbaceous wetland vegetation for cover and foraging, grassy banks and openings for basking, and higher elevation uplands for cover and refuge from flood waters in the winter. The species is typically absent from larger rivers and other water bodies that have been highly channelized and support predatory fish.

The on-site roadside ditch provides potential habitat for the giant garter snake, which may use the drainage during the species' active season (May 1 through October 1), if the drainage is inundated. Based on the above, giant garter snake has potential to occur within the study area.

Tricolored Blackbird

Tricolored blackbird (*Agelaius tricolor*) is not federally listed. The species is State-listed as threatened and is a Yolo HCP/NCCP Covered Species. Tricolored blackbird has been in decline throughout the State. Tricolored blackbirds are colonial nesters, and historically, established colonies in freshwater marshes dominated by cattails (*Typha* sp.) and bulrushes (*Scirpus* or *Schoenoplectus* sp.). More recently, the species has utilized non-native mustards (*Brassica* sp.), blackberries (*Rubus* sp.), thistles (*Circium* sp.), and mallows (*Malva* sp.) as nesting substrate. Since the 1980s, the largest colonies have been observed in the San Joaquin Valley in cultivated fields of triticale, which is a hybrid of wheat and rye often grown as livestock fodder. Nesting in active agricultural fields has further imperiled the species, given that nestlings typically are not fledged by the time the triticale is harvested.

The on-site agricultural land is considered suitable foraging habitat for the species. Therefore, the tricolored blackbird has potential to occur within the study area.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is not listed under FESA or CESA. The species is designated as a CDFW Species of Special Concern and is a Yolo HCP/NCCP Covered Species. Burrowing owls typically inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos. The species typically uses burrows created by fossorial mammals, most notably the California ground squirrel (*Otospermophilus beecheyi*), but may also use man-made structures, such as culverts, cement, asphalt, or wood debris piles or openings beneath cement or asphalt pavement. The species' breeding season extends from February 1 through August 31.

Due to the presence of grassland habitat within the project site, portions of the site are considered suitable habitat for the species. However, it should be noted that the past and on-going disturbance of on-site areas due to agriculture within the project site reduces the suitability of the

site as habitat for the species. Nevertheless, because the project site includes potential nesting and foraging habitat for the burrowing owl, the species has potential to occur within the study area.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a raptor species that is not federally listed, but is State-listed as threatened. The species is also a Yolo HCP/NCCP Covered Species. Breeding pairs typically nest in tall trees associated with riparian corridors, and forage in grassland, irrigated pasture, and cropland with a high density of rodents. The Central Valley populations breed and nest in the late spring through early summer before migrating to Central and South America for the winter.

The trees around the perimeter of the project site provide suitable nesting habitat for the Swainson's hawk. In addition, the on-site agricultural land is suitable Swainson's hawk foraging habitat. Therefore, the Swainson's hawk has potential to occur within the study area.

Northern Harrier

The northern harrier *(Circus hudsonius)* is not listed pursuant to either FESA or CESA and is not covered by the Yolo HCP/NCCP. The species is a CDFW Species of Special Concern. Northern harrier, a ground-nesting species, is known to nest within the Central Valley, along the Pacific Coast, and in northeastern California, typically in emergent wetland/marsh, open grasslands, or savannah habitats. Foraging occurs within a variety of open habitats, such as marshes, agricultural fields, and grasslands.

The on-site agricultural land provides potential foraging habitat, and the trees along the perimeter of the project site provide suitable nesting habitat for the species. Therefore, the species has potential to occur within the study area.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is not listed pursuant to either FESA or CESA. The raptor is a CDFW Fully Protected species and a Yolo HCP/NCCP Covered Species. White-tailed kite is a yearlong resident of the Central Valley and is primarily found in or near foraging areas, such as open grasslands, meadows, farmlands, savannahs, and emergent wetlands. White-tailed kites typically nest from March through June in trees within riparian, oak woodland, and savannah habitats of the Central Valley and Coast Range.

The trees around the perimeter of the project site provide suitable nesting habitat for the white-tailed kite. In addition, the on-site agricultural land is suitable white-tailed kite foraging habitat. Therefore, the species has potential to occur within the study area.

Western Red Bat

Western red bat (*Lasiurus blossevillii*) is not listed pursuant to either FESA or CESA and is not covered by the Yolo HCP/NCCP. The species is a CDFW Species of Special Concern and classified by the WBWG as a High priority species. Western red bat is typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. The species may associate with intact riparian habitat, particularly willows, cottonwoods, and sycamores.

Tree hollows and exfoliating bark on trees throughout the study area provide suitable day and maternity roosting habitat for western red bat, and the on-site agricultural land provides potential foraging habitat. Therefore, western red bat has potential to occur within the study area.

Pallid Bat

Pallid bat (*Antrozous pallidus*) is not listed pursuant to either FESA or CESA and is not covered by the Yolo HCP/NCCP. The species is a CDFW Species of Special Concern and classified by the WBWG as a High priority species. Pallid bat favors roosting sites in crevices in rock outcrops, caves, abandoned mines, hollow trees, and man-made structures, such as barns, attics, and sheds. Though pallid bats are gregarious, they tend to group in smaller colonies of 10 to 100 individuals. The bat is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which the bat seizes after landing.

Tree hollows and exfoliating bark on trees throughout the study area provide suitable day and maternity roosting habitat for pallid bat, and the on-site agricultural land provides potential foraging habitat. Therefore, pallid bat has potential to occur within the study area.

American Badger

American badger (*Taxidea taxus*) is not listed pursuant to either FESA or CESA and is not covered by the Yolo HCP/NCCP. The species is designated as a CDFW Species of Special Concern. American badger historically ranged throughout much of the State, except in humid coastal forests, and were once numerous in the Central Valley. However, populations now occur in low numbers in the surrounding peripheral parts of the valley and in the adjacent lowlands of eastern Monterey, San Benito, and San Luis Obispo counties. American badgers occupy a variety of habitats, including grasslands and savannahs, and primarily require food supply, friable soils, and relatively open uncultivated ground.

The non-native grasslands within the study area provide potential habitat for the species; however, on-going maintenance activities related to the project site's agricultural uses could dissuade their presence. Based on the above, American badger has potential to occur within the study area.

Trees

The southern perimeter of the project site contains numerous trees and shrubs, including valley oak (*Quercus lobata*), paradox walnut (*Juglans x paradox*), English walnut (*Juglans regia*), olive (*Olea europaea*), and common fig (*Ficus carica*), and one large coast redwood (*Sequoia sempervirens*). Volunteer domestic almond (*Prunus dulcis*) line the east, north, and west edges of the project site.

4.4.3 REGULATORY CONTEXT

A number of federal, State, and local policies provide the regulatory framework that guides the protection of biological resources. The following discussion summarizes those laws that are most relevant to biological resources in the vicinity of the project site.

Federal Regulations

The following are the federal environmental laws and policies relevant to biological resources:

Federal Endangered Species Act

The U.S. Congress passed the FESA in 1973 to protect species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [3], [19]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 Code of Federal Regulations [CFR] Section 17.3). Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR Section 17.3). Actions that result in take can result in civil or criminal penalties.

Section 10 requires the issuance of an "incidental take" permit before any public or private action may be taken that could take an endangered or threatened species. The permit requires preparation and implementation of an HCP that would offset the take of individuals that may occur, incidental to implementation of a proposed project, by providing for the protection of the affected species.

Pursuant to the requirements of FESA, a federal agency reviewing a project within the jurisdiction of the agency must determine whether any federally listed threatened or endangered species may be present on-site and whether the proposed project will have a potentially significant impact on such species.

In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 U.S. Code [USC], Section 1536[3], [4]).

For federally listed species covered under the Yolo HCP/NCCP, the Biological Opinion issued by the USFWS for the Yolo HCP/NCCP provides take coverage for covered projects under the Yolo HCP/NCCP that may impact federally listed species that are Covered Species under the Yolo HCP/NCCP. Further consultation is not required as long as the covered project complies with Yolo HCP/NCCP requirements. For federally listed species that are not Yolo HCP/NCCP Covered Species, take coverage is required as outlined below.

In the context of the proposed project, FESA consultation with USFWS or the NMFS would be initiated if development would result in take of a threatened or endangered species not covered under the Yolo HCP/NCCP or if issuance of a Section 404 permit or other federal agency action could result in take of an endangered species not covered under the Yolo HCP/NCCP or adversely modify critical habitat of such a species.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of State and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior.

Clean Water Act

The USACE regulates discharge of dredged or fill material into waters of the U.S. under Section 404 of the CWA. "Discharge of fill material" is defined as the addition of fill material into waters of the U.S., including but not limited to, the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for the construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and sub-aqueous utility lines (33 CFR Section 328.2[f]). In addition, Section 401 of the CWA (Title 33 of USC, Section 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the U.S. include a range of wet environments, such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR Section 328.3[b]).

Furthermore, jurisdictional waters of the U.S. can be defined by exhibiting a defined bed and bank and OHWM. The OHWM is defined by the USACE as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]).

State Regulations

The following are the State environmental laws and policies relevant to biological resources:

California Department of Fish and Wildlife

CDFW administers a number of laws and programs designed to protect fish and wildlife resources under the California Fish and Game Code (CFGC), such as CESA (CFGC Section 2050, et seq.), Fully Protected Species (CFGC Section 3511) and the Lake or Streambed Alteration Agreement (LSAA) Program (CFGC Sections 1600 to 1616). The aforementioned regulations are summarized below.

California Endangered Species Act

The State of California enacted CESA in 1984. CESA is similar to the FESA but pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with CDFW when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the existence of listed species. CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur, and allows CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that "overriding considerations" exist; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species.

As with FESA, for covered projects that may impact State-listed species under CESA that are also Covered Species under the Yolo HCP/NCCP, direct consultation with CDFW for State-listed take authorization is not required as long as the covered project complies with Yolo HCP/NCCP requirements. For projects that may result in take of State-listed species that are not Yolo

HCP/NCCP Covered Species, CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur and allows CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (CFGC Section 2081).

California Fish and Game Codes

A number of species have been designated "Fully Protected" species under Sections 5515, 5050, 3511, and 4700 of the CFGC, but are not listed as endangered (Section 2062) or threatened (Section 2067) species under CESA. Except for take related to scientific research, all take of fully protected species is prohibited. The CFGC defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

Birds of prey are protected in California under provisions of the CFGC Section 3503.5 (1992), which states, "it is unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by CDFW.

Lake or Streambed Alteration Program

The CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, CFGC Section 1602 requires notification to CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, State or local government agency, or public utility that proposes an activity that will:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement that could pass into any river, stream, or lake.

For the purposes of Section 1602, rivers, streams, and lakes must flow at least intermittently through a bed or channel. If notification is required and CDFW believes the proposed activity is likely to result in adverse harm to the natural environment, the CDFW will require that the parties enter into a LSAA.

CDFW Species of Special Concern

In addition to formal listings under FESA and CESA, plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern" developed by CDFW. Species whose numbers, reproductive success, or habitat may be threatened are tracked by CDFW in California.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. Currently 64 species, subspecies, and varieties of plants are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations, emergencies, and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

Regional Water Quality Control Board

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the federal CWA. Although the CWA is a federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Quality Control Boards (RWQCBs) are the authorities that certify that issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE's permits for fill and dredge discharges within waters of the U.S., and also implements the State's wetland protection and hydromodification regulation program under the Porter-Cologne Water Quality Control Act.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California Plan. The Procedures consist of four major elements: (1) a wetland definition; (2) a framework for determining if a feature that meets the wetland definition is a water of the State; (3) wetland delineation procedures; and (4) procedures for the submittal, review, and approval of applications for WQCs and Waste Discharge Requirements (WDR) for dredge or fill activities. The State Office of Administrative Law (OAL) approved the Procedures on August 28, 2019, and the Procedures became effective May 28, 2020.

Under the Procedures and the State Water Code (Water Code Section 13050[e]), "waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to waters of the State, which includes waters of the U.S. and non-federal waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals.

Local Regulations

The following are the local environmental laws and policies relevant to biological resources:

Yolo County Habitat Conservation Plan and Natural Community Conservation Plan

The Yolo HCP/NCCP, which was adopted in January 2019, is a 50-year regional plan that provides for the conservation of 12 Covered Species and the natural communities and agricultural land on which they depend, while allowing for orderly development in Yolo County consistent with local general plans. The following six local agencies prepared the Yolo HCP/NCCP: the Yolo Habitat Conservancy, County of Yolo, City of Davis, City of West Sacramento, City of Winters, and City of Woodland. The Yolo HCP/NCCP only applies to eligible projects, also known as Covered Activities, undertaken within the Yolo HCP/NCCP plan area, which includes all areas within Yolo County, including the incorporated cities of Davis, West Sacramento, Winters, and Woodland.

The Yolo HCP/NCCP provides the basis for issuance of long-term permits under FESA and the California Natural Community Conservation Planning Act (NCCPA) that cover an array of public and private activities, including activities that are essential to the ongoing viability of Yolo County's agricultural and urban economies. Specifically, the Yolo HCP/NCCP provides permittees (i.e., Yolo County, the four incorporated cities, and the Yolo Habitat Conservancy) with incidental take permits from both USFWS and CDFW for the 12 Covered Species, pursuant to Section 10(a)(1)(B) of the FESA and Section 2835 of the NCCPA chapter of the CFGC. The Yolo HCP/NCCP ensures compliance with the FESA, NCCPA, and CESA for Covered Activities that may affect Covered Species.

In addition to the permittees, the Yolo HCP/NCCP permits may cover the activities of other entities through certificates of inclusion obtained by completing the Yolo HCP/NCCP application process. The Yolo Habitat Conservancy charges various types of fees to cover implementation costs, including administration, land acquisition, restoration, and land management costs. Yolo HCP/NCCP applicants can either pay mitigation fees for land cover conversion, or conduct wetland restoration, and/or dedicate land in-lieu of the fees. Wetland restoration and land-in-lieu proposals must be reviewed and approved by the Yolo Habitat Conservancy. If an applicant opts to pay the mitigation fees, the Yolo Habitat Conservancy applies an adopted land cover fee schedule, with additional fees for wetlands. Fees are automatically increased annually, adjusted for inflation. Additionally, every five years, the Yolo Habitat Conservancy completes a fee assessment to review costs, underlying assumptions, and actual costs. After the review, fee schedule adjustments are made, and automatic annual increases resume based off the five-year fee assessment.

City of Winters General Plan

The Winters General Plan biological resource goals and policies that are applicable to the proposed project are presented below.

Goal VI.C To protect sensitive native vegetation and wildlife communities and habitat.

Policy VI.C.1 Prior to approving public or private development projects in areas containing or adjacent to areas containing large trees, riparian vegetation, wetlands, or other significant wildlife habitat, the City shall require the project area and its environs be field surveyed

for the presence of special-status plant and animal taxa. Such field surveys shall be conducted by a qualified biologist. If special-status taxa are encountered during the field surveys, appropriate measures shall be developed to minimize disturbance and protect identified populations where feasible.

Policy VI.C.2 In regulating private development and constructing public improvements, the City shall ensure that there is no net loss of riparian or wetland habitat acreage and value and shall promote projects that avoid sensitive areas. Where habitat loss is unavoidable, the City shall require replacement on at least a 1:1 basis. Replacement entails creating habitat that is similar in extent and ecological value to that displaced by the project. The replacement habitat should consist of locally-occurring, native species and be located as close as possible to the project site. Implementation of this policy should be based on baseline data concerning existing native species. Study expenses shall be borne by development.

Policy VI.C.3 Unless there are overriding considerations as defined in the California Environmental Quality Act, the City shall not approve any project that would cause significant unmitigable impacts on rare, threatened, or endangered wildlife or plant species.

Policy VI.C.5 The City shall require mitigation of potential impacts on special-status plant and animal taxa based on a policy of no-net-loss of habitat value. Mitigation measures shall incorporate as the City deems appropriate, the guidelines and recommendations of the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Implementation of this policy may include a requirement that project proponents enter into an agreement with the City satisfactory to the City Attorney to ensure that the proposed projects will be subject to a City fee ordinance to be adopted consistent with the regional Habitat Management Plan.

Policy VI.C.7 The City shall promote the use of drought-tolerant and native plants, especially valley oaks, for landscaping roadsides, parks, schools, and private properties.

Policy VI.C.8 Parks, the drainage detention areas, and golf course development shall incorporate areas of native vegetation and wildlife habitat.

Policy VI.C.9 Large, older and historically-significant trees should not be removed unless they are diseased or represent an unavoidable obstacle to development. Development should be designed and constructed to avoid adverse impacts on such trees.

Goal VI.D To promote the protection and enhancement of wetlands and the riparian and aquatic ecosystems of Putah Creek and Dry Creek.

Policy VI.D.4 Any upstream development that creates potential erosion impacts on Dry Creek and Putah Creek shall be required to adopt all feasible measures to mitigate such impacts.

Winters Municipal Code

Winters Municipal Code Chapter 12.08 establishes the City's regulations for the planning and removal of trees within the City. The provisions of Chapter 12.08, which are directly applicable to the proposed project, are as follows:

Section 12.08.010 – Applications
All applications to plant, move, remove or replace a tree in the control area shall be referred to the tree commission for prior approval. Authority shall be given to the property owner by the city manager, pursuant to the action taken by the tree commission.

A. Applications shall state the number and kind of trees proposed to be moved, removed or replaced, and such other information as the city manager shall find reasonably necessary to a fair determination of whether or not authority should be issued under this article.

B. The city manager may require the planting of a new tree as a condition for granting authority to remove a tree.

Section 12.08.050 – Removal of trees.
B. Any owner of private property at his or her sole cost shall remove all dead, injured, or insecurely rooted trees, or diseased portions thereof, which constitute a hazard to trees or plants in public places, and shall trim or remove any tree which overhangs a street or public place, which is reasonably likely to fall onto a street or public place, which may cause a hazard to a public place, or interferes with proper lighting of public streets or places by street lights, or which is an obstruction to vision of sidewalks, street signs, traffic signs or signals, streets or street intersections.

4.4.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to biological resources. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact would occur if the proposed project would result in the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
- Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

Method of Analysis

The information presented in this chapter is primarily based on the Special-Status Plant Survey Report and updated Special-Status Plant Survey Results Memorandum, a VELB Habitat Report a FESA Documentation Memorandum, and an ARD conducted by Madrone. Additionally, a query of the CNDDB was conducted by Raney Planning and Management, Inc.

Special-Status Plant Survey Report and Updated Special-Status Plant Survey Results Memorandum

Madrone conducted a special-status plant survey of the project site on April 13, 2018 in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants; the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities; and the CNPS Botanical Survey Guidelines.

A list of special-status plant species with potential to occur within the project site was developed by reviewing the following literature.

- CNPS Rare and Endangered Plant Inventory query of CRPR Lists 1A, 1B, 2A, and 2B within the USGS Winters quadrangle and the eight surrounding quadrangles; and
- CNDDB occurrences of special-status plant species within five miles of the project site.

The list of species with potential to occur within the project site was refined based on habitats present within the project site. The identified target species included recurved larkspur, dwarf downingia, and bearded popcornflower. Meandering pedestrian surveys were conducted throughout all portions of the project site that represented potential habitat. The surveys were floristic in nature, which means that all plant species observed on-site were identified to the taxonomic level necessary to determine rarity. If a special-status plant was present but not on the target list, the plant would have been detected and documented. A comprehensive list of all plant species observed during the survey of the project site is included in Attachment B of the Special-Status Plant Survey Report (see Appendix D of this EIR). Plant taxonomy was based on the nomenclature in the Jepson eFlora. Vegetation communities were classified according to the Manual of California Vegetation, Second Edition.

As part of the updated Special-Status Plant Survey Results Memorandum, a second special-status plant survey was conducted on April 26, 2023. The survey followed the same methods discussed above and included the same target species.

California Natural Diversity Database Query

Raney Planning & Management, Inc. conducted a query of the CNDDB on July 29, 2024 to identify wildlife species with the potential to occur in the project site and off-site areas. As part of the

query, a search of the CNDDB was completed for the USGS Winters quadrangle, as well as the eight surrounding quadrangles. The following search parameters were used:

- CDFW Fully Protected and CDFW Species of Special Concern;
- Federal Endangered, Threatened, Proposed Endangered, Proposed Threatened, and Candidate species; and
- State Endangered, Threatened, Candidate Endangered, and Candidate Threatened species.

Valley Elderberry Longhorn Beetle Habitat Report

During the April 26, 2023 survey, Madrone also conducted a protocol-level field survey of the project site in accordance with the survey protocol outlined in the USFWS Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (Framework). The Framework focuses on assessing impacts to VELB when elderberry shrubs have been located within a project site. Mitigation is based on a per-shrub basis or habitat impact acreage. The project site was thoroughly surveyed for elderberry shrubs. In accordance with the protocol, all elderberry shrubs with stems greater than one inch in diameter are mapped with a Global Positioning System (GPS) unit capable of sub-meter accuracy. All stems greater than one inch in diameter at ground level are tallied by diameter size class, and all stems are searched for VELB exit holes. Shrub height, canopy diameter, and riparian position are also recorded. If shrubs are not found on-site, further documentation is not collected. Elderberry shrubs were not observed within the project area.

Federal Endangered Species Act Documentation Memorandum

Madrone prepared a FESA Documentation Memorandum to provide information demonstrating the lack of habitat on-site for federally protected plant and wildlife species listed under the FESA. The FESA Documentation Memorandum was intended to support the Federal Emergency Management Agency's (FEMA's) processing of a Conditional Letter of Map Revision (CLOMR) for the project site. As part of the FESA Documentation Memorandum, Madrone conducted a query of the CNDDB in 2018 and 2020 in order to determine which species listed under FESA have been documented within a five-mile radius of the project site. Based on the CNDDB records and Madrone's experience conducting special-status species surveys within the project area, federally listed animals potentially occurring within the greater project vicinity were determined to include vernal pool fairy shrimp, vernal pool tadpole shrimp, and VELB. Due to the lack of vernal pools or wetlands of any kind within the project site, as well as the lack of elderberry shrubs, none of the foregoing species were found to have potential of occurring within the project site.

Aquatic Resources Delineations

Madrone conducted an ARD of the project site in February 2018 and submitted a request for an approved jurisdictional determination to the USACE on November 5, 2018. A Jurisdictional Determination Verification Letter was issued by the USACE on March 29, 2019, under File Number SPK-2018-00582, which concurred with Madrone's ARD and confirmed that the 0.079-acre of on-site roadside ditch are not waters of the U.S. and not subject to Section 404 of the CWA.

The survey area was slightly modified after the 2019 Jurisdictional Determination Verification Letter, as during project design, the determination was made that drainage and flood control features would extend to off-site features, resulting in the survey area being modified to include an additional four off-site acres. On October 21, 2020, Madrone conducted a site visit to delineate any additional wetlands and other waters within the updated survey area. Aquatic resources and

data points were mapped in the field with a GPS unit capable of sub-meter accuracy (Arrow 100). Three-parameter data (vegetation, soils, and hydrology) were collected at two additional data points, documenting wetland/waters or upland status, as appropriate. The previously verified delineation map was updated in accordance with the USACE Updated Map and Drawing Standards for the South Pacific Division Regulatory Program. The delineation was performed in accordance with the USACE Wetlands Delineation Manual, the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version2.0), A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States, and the USACE Sacramento District's Minimum Standards for Acceptance of Preliminary Wetlands Delineations.

USACE regulations were used to determine the presence of waters of the U.S. other than wetlands present within the survey area. The most recent National Wetland Plant List was used to determine the wetland indicator status of plants observed in the survey area. The Jepson eFlora was used for plant nomenclature, except where conflicts occurred with the nomenclature in the National Wetland Plant List, which was given priority on the data sheets. Additionally, a review of historic aerial photography and topographic maps was conducted to inform historic site conditions in the project site and vicinity.

Madrone submitted a request for an approved jurisdictional determination to the USACE on September 3, 2021 for the additional four off-site acres. USACE issued a Jurisdictional Determination Verification Letter on April 27, 2022, which concurred with Madrone's ARD and confirmed that the 0.007-acre of off-site ditches are not waters of the U.S. and not subject to Section 404 of the CWA.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to biological resources is based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above:

4.4-1 Have a substantial adverse effect, either directly or through habitat modifications, on any special-status plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The special-status plant species with potential to occur in the study area include recovered larkspur, dwarf downingia, and bearded popcornflower. The deeper portions of the on-site roadside ditch provide potential habitat for dwarf downingia and bearded popcornflower, and the on-site agricultural areas with non-native grassland provide potential habitat for recurved larkspur.

The special-status plant surveys conducted by Madrone in 2018 and 2023 were negative for all three plant species. However, the proposed frontage improvements along SR 128, including construction of a new 12-foot-wide right-turn lane, bicycle lanes, multi-use pathways, ditches, and landscaping, could result in potential impacts

to the existing on-site roadside ditch. The on-site agricultural areas would also be converted to urban uses as a result of the proposed project. Given enough time, plants may become established in the foregoing areas, which provide suitable habitat for recovered larkspur, dwarf downingia, and bearded popcornflower. Therefore, special-status plants could become established within the foregoing portions of the project site in the interim between the ceasing of agricultural activities and start of construction activities, which could result in potential impacts during project construction.

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on special-status plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.4-1 *If construction has not commenced prior to the first day of spring 2026 (March 20, 2026), a new round of special-status plant surveys shall be conducted by a qualified biologist in areas proposed for disturbance, prior to the commencement of construction.*

The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the California Native Plant Society (CNPS) Botanical Survey Guidelines of the California Native Plant Society, and the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The surveys shall be conducted at the appropriate time of year when plants are in bloom. A report summarizing the results of the protocol-level special-status plant surveys shall be submitted for review and approval to the City of Winters Community Development Department.

If special-status plant species are not found, further mitigation shall not be required. If special-status plants are found within the proposed impact area and they are perennials, such as recurved larkspur, then mitigation shall consist of digging up the plants and transplanting them into a suitable mitigation area prior to construction. If the plant found is an annual, such as dwarf downingia or bearded popcornflower, then mitigation shall consist of collecting seed-bearing soil and spreading it into a suitable constructed wetland at a mitigation site. If special-status plants will be impacted, a mitigation plan shall be developed and approved by the City of Winters Community Development Department. Mitigation for the transplantation/establishment of rare plants shall result in no net loss of individual plants after a five-year monitoring period.

4.4-2 Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle or giant garter snake. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The on-site roadside ditch represents potential habitat for northwestern pond turtle and giant garter snake, which could be potentially impacted, if present, during the proposed frontage improvements to SR 128. In addition, northwestern pond turtles and giant garter snakes present and/or nesting in the upland areas within 100 feet of the on-site roadside ditch during project construction could be injured or killed, as well as their eggs.

The northwestern pond turtle and giant garter snake are both Yolo HCP/NCCP Covered Species. Winters Municipal Code Chapter 18.12 requires project applicants for Covered Activities within the Yolo HCP/NCCP plan area to comply with the applicable Yolo HCP/NCCP Avoidance and Minimization Measures (AMMs) to avoid, minimize, and mitigate the take of Covered Species. Thus, as the proposed project is a Covered Activity under the Yolo HCP/NCCP, the project would be required to comply with the applicable Yolo HCP/NCCP AMMs, including species-specific Yolo HCP/NCCP AMM14, which necessitates permanent buffer zones to protect habitat of northwestern pond turtle and preconstruction assessment of the potential for northwestern pond turtle to occur within on- and off-site habitat. If the potential is determined to be moderate to high, AMM14 requires a qualified biologist to monitor ground-disturbing activity. Additionally, the proposed project would be required to comply with species-specific Yolo HCP/NCCP AMM15, which necessitates avoidance of potential giant garter snake habitat and minimization procedures if avoidance is infeasible, including, but not limited to, dewatering irrigation ditches, canals, or other aquatic habitat, providing environmental awareness training, and stopping construction if giant garter snake is encountered. However, as the final application to the Yolo Habitat Conservancy has not yet been prepared, proper compliance with the applicable Yolo HCP/NCCP AMMs cannot be ensured at this time. Thus, the proposed project could have a substantial adverse effect on northwestern pond turtle or giant garter snake, either directly or through habitat modifications.

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a special-status wildlife species (northwestern pond turtle and giant garter snake) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Northwestern pond turtle and giant garter snake are both Yolo HCP/NCCP Covered Species. Thus, the proposed project would be subject to the following Yolo HCP/NCCP AMMs to address potential impacts to the species. The AMMs included throughout this chapter are pulled forward as they are written in the Yolo HCP/NCCP. It should be noted that AMM9, as referenced below within AMM14, is related to establishing buffers around valley foothill riparian communities and, thus, is not applicable due to the lack of such habitat within areas that would be disturbed by the proposed project.

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Northwestern Pond Turtle

4.4-2(a) *Yolo HCP/NCCP AMM14: There are no specific design requirements for western pond turtle habitat, however, project proponents must follow design requirements for the valley foothill riparian and lacustrine and riverine natural communities described in AMMs 9 and 10, which require a 100-foot (minimum) permanent buffer zone from the canopy drip-line (the farthest edge on the ground where water will drip from the tree canopy, based on the outer boundary of the tree canopy). If modeled upland habitat will be impacted, a qualified biologist must be present and will assess the likelihood of western pond turtle nests occurring in the disturbance area (based on sun exposure, soil conditions, and other species habitat requirements). If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, the qualified biologist will monitor all initial ground disturbing activity for nests that may be unearthed during the disturbance, and will move out of harm's way any turtles or hatchlings found.*

Giant Garter Snake

4.4-2(b) *Yolo HCP/NCCP AMM15: The project proponent will avoid effects on areas where planning-level surveys indicate the presence of suitable habitat for giant garter snake. To avoid effects on giant garter snake aquatic habitat, the project proponent will conduct no in-water/in-channel activity and maintain a permanent 200-foot non-disturbance buffer from the outer edge of potentially occupied aquatic habitat. If the project proponent cannot avoid effects of construction activities, the project proponent will implement the measures below to minimize effects of construction projects (measures for maintenance activities are described after the following bulleted list).*

- *Conduct preconstruction clearance surveys using USFWS-approved methods within 24 hours prior to construction activities within identified giant garter snake aquatic and adjacent upland habitat. If construction activities stop for a period of two weeks or more, conduct another preconstruction clearance survey within 24 hours prior to resuming construction activity.*
- *Restrict all construction activity involving disturbance of giant garter snake habitat to the snake's active season, May 1 through October 1. During this period, the potential for direct mortality is reduced because snakes are expected to move and avoid danger.*
- *In areas where construction is to take place, encourage giant garter snakes to leave the site on their own by dewatering all irrigation ditches, canals, or other aquatic habitat (i.e., removing giant garter snake aquatic habitat) between April 15 and*

September 30. Dewatered habitat must remain dry, with no water puddles remaining, for at least 15 consecutive days prior to excavating or filling of the habitat. If a site cannot be completely dewatered, netting and salvage of giant garter snake prey items may be necessary to discourage use by snakes.

- *Provide environmental awareness training for construction personnel, as approved by the Conservancy. Training may consist of showing a video prepared by a qualified biologist, or an in-person presentation by a qualified biologist. In addition to the video or in-person presentation, training may be supplemented with the distribution of approved brochures and other materials that describe resources protected under the Yolo HCP/NCCP and methods for avoiding effects.*
- *A qualified biologist will prepare a giant garter snake relocation plan which must be approved by the Conservancy prior to work in giant garter snake habitat. The qualified biologist will base the relocation plan on criteria provided by CDFW or USFWS, through the Conservancy.*
- *If a live giant garter snake is encountered during construction activities, immediately notify the project's biological monitor and USFWS and CDFW. The monitor will stop construction in the vicinity of the snake, monitor the snake, and allow the snake to leave on its own. The monitor will remain in the area for the remainder of the work day to ensure the snake is not harmed or, if it leaves the site, does not return. If the giant garter snake does not leave on its own, the qualified biologist will relocate the snake consistent with the relocation plan described above.*
- *Employ the following management practices to minimize disturbances to habitat:*

    - *Install temporary fencing to identify and protect adjacent marshes, wetlands, and ditches from encroachment from construction equipment and personnel.*
    - *Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted practices. No plastic, monofilament, jute, or similar erosion-control matting that could entangle snakes or other wildlife will be permitted.*

Ongoing maintenance covered activities by local water and flood control agencies typically involve removal of vegetation, debris, and sediment from water conveyance canals as well as resloping, rocking, and stabilizing the canals that serve agricultural water users. Maintenance of these conveyance facilities can typically occur only from mid-January through April when conveyance canals and ditches are not in service by the agency, although some drainages are used for storm conveyance during the winter and are wet all year. This timing is during the giant garter snake's inactive period. This is when snakes

may be using underground burrows and are most vulnerable to take because they are unable to move out of harm's way. Maintenance activities, therefore, will be limited to the giant garter snake's active season (May 1 to October 1) when possible. All personnel involved in maintenance activities within giant garter snake habitat will first participate in environmental awareness training for giant garter snake, as described above for construction-related activities. To minimize the take of giant garter snake, the local water or flood control agency will limit maintenance of conveyance structures located within modeled giant garter snake habitat (Appendix A, Covered Species Accounts) to clearing one side along at least 80 percent of the linear distance of canals and ditches during each maintenance year (e.g., the left bank of a canal is maintained in the first year and the right bank in the second year). To avoid collapses when resloping canal and ditch banks composed of heavy clay soils, clearing will be limited to one side of the channel during each maintenance year.

For channel maintenance activities conducted within modeled habitat for giant garter snake, the project proponent will place removed material in existing dredged sites along channels where prior maintenance dredge disposal has occurred. For portions of channels that do not have previously used spoil disposal sites and where surveys have been conducted to confirm that giant garter snakes are not present, removed materials may be placed along channels in areas that are not occupied by giant garter snake and where materials will not re-enter the canal because of stormwater runoff.

Modifications to this AMM may be made with the approval of the Conservancy, USFWS, and CDFW.

4.4-3 Have a substantial adverse effect, either directly or through habitat modifications, on tricolored blackbird. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Potential nesting habitat for tricolored blackbird is available on-site within the roadside ditch, which would be disturbed during project construction as part of the improvements to SR 128. On-site agricultural fields represent potential foraging habitat for the species. The on-site Cultivated Land and Semiagricultural/Incidental to Agriculture land covers that currently provide tricolored blackbird foraging habitat would be permanently impacted by the proposed project through conversion of the existing agricultural landscape to urban uses.

The tricolored blackbird is a Yolo HCP/NCCP Covered Species. Therefore, the proposed project would be required to comply with species-specific Yolo HCP/NCCP AMM21, which necessitates identifying potential tricolored blackbird nests, maintaining non-disturbance buffers, and checking records for tricolored blackbird nesting colonies. However, as the final application to the Yolo Habitat Conservancy has not yet been prepared, proper compliance with the Yolo HCP/NCCP cannot be

ensured at this time. Thus, the proposed project could have a substantial adverse effect on tricolored blackbird, either directly or through habitat modifications.

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a special-status wildlife species (tricolored blackbird) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Tricolored blackbird is a Yolo HCP/NCCP Covered Species. Thus, the proposed project would be subject to the following species-specific Yolo HCP/NCCP AMM to address potential impacts to the species. Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.4-3 *Yolo HCP/NCCP AMM21: The project proponent will retain a qualified biologist to identify and quantify (in acres) tricolored blackbird nesting and foraging habitat (as defined in Appendix A, Covered Species Accounts) within 1,300 feet of the footprint of the covered activity. If a 1,300-foot buffer from nesting habitat cannot be maintained, the qualified biologist will check records maintained by the Conservancy (which will include CNDDB data, and data from the tricolored blackbird portal) to determine if tricolored blackbird nesting colonies have been active in or within 1,300 feet of the project footprint during the previous five years. If there are no records of nesting tricolored blackbirds on the site, the qualified biologist will conduct visual surveys to determine if an active colony is present, during the period from March 1 to July 30, consistent with protocol described by Kelsey (2008).*

Operations and maintenance activities or other temporary activities that do not remove nesting habitat and occur outside the nesting season (March 1 to July 30) do not need to conduct planning or construction surveys or implement any additional avoidance measures.

If an active tricolored blackbird colony is present or has been present within the last five years within the planning-level survey area, the project proponent will design the project to avoid adverse effects within 1,300 feet of the colony site(s), unless a shorter distance is approved by the Conservancy, USFWS, and CDFW. If a shorter distance is approved, the project proponent will still maintain a 1,300-foot buffer around active nesting colonies during the nesting season but may apply the approved lesser distance outside the nesting season. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.

4.4-4 Have a substantial adverse effect, either directly or through habitat modifications, on burrowing owl. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The on-site agricultural areas with non-native grassland provide potential habitat for burrowing owl. Because a protocol-level burrowing owl survey has not been conducted for the proposed project, the potential exists for the species to occur on-site. If ground disturbance occurs while burrowing owls are occupying burrows within the on-site non-native grassland, individuals could be directly impacted, and a potential impact could occur.

The burrowing owl is a Yolo HCP/NCCP Covered Species. Therefore, the proposed project would be required to comply with species-specific Yolo HCP/NCCP AMM18, which necessitates a planning-level survey for suitable burrowing owl habitat and the species, non-disturbance buffers on occupied habitat, and potentially, a preconstruction survey prior to ground-disturbing activities and nest monitoring to ensure buffers are enforced and any on-site burrowing owls remain undisturbed. However, as the final application to the Yolo Habitat Conservancy has not yet been prepared, proper compliance with the applicable Yolo HCP/NCCP AMMs cannot be ensured at this time. Thus, the proposed project could have a substantial adverse effect on burrowing owl, either directly or through habitat modifications.

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a special-status wildlife species (burrowing owl) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Burrowing owl is a Yolo HCP/NCCP Covered Species. Thus, the proposed project would be subject to the following species-specific Yolo HCP/NCCP AMM to address potential impacts to the species. Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.4-4 *Yolo HCP/NCCP AMM18: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify western burrowing owl habitat (as defined in Appendix A, Covered Species Accounts) within or adjacent to (i.e., within 500 feet of) a covered activity. If habitat for this species is present, additional surveys for the species by a qualified biologist are required, consistent with CDFW guidelines (Appendix L).*

If burrowing owls are identified during the planning-level survey, the project proponent will minimize activities that will affect occupied habitat as follows. Occupied habitat is considered fully avoided if the project footprint does not impinge on a nondisturbance buffer around the suitable burrow. For occupied burrowing owl nest burrows, this nondisturbance buffer could range from 150 to 1,500 feet (Table 4-2, Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls [incorporated as Table 4.4-2 of this chapter]), depending on the time of year and the level of disturbance, based on current guidelines (California Department of Fish

and Game 2012). The Yolo HCP/NCCP generally defines low, medium, and high levels of disturbances of burrowing owls as follows.

- *Low: Typically 71-80 dB, generally characterized by the presence of passenger vehicles, small gas-powered engines (e.g., lawn mowers, small chain saws, portable generators), and high-tension power lines. Includes electric hand tools (except circular saws, impact wrenches and similar). Management and enhancement activities would typically fall under this category. Human activity in the immediate vicinity of burrowing owls would also constitute a low level of disturbance, regardless of the noise levels.*
- *Moderate: Typically 81-90 dB, and would include medium- and large-sized construction equipment, such as backhoes, front end loaders, large pumps and generators, road graders, dozers, dump trucks, drill rigs, and other moderate to large diesel engines. Also includes power saws, large chainsaws, pneumatic drills and impact wrenches, and large gasoline-powered tools. Construction activities would normally fall under this category.*
- *High: Typically 91-100 dB, and is generally characterized by impacting devices, jackhammers, compression ("jake") brakes on large trucks, and trains. This category includes both vibratory and impact pile drivers (smaller steel or wood piles) such as used to install piles and guard rails, and large pneumatic tools such as chipping machines. It may also include large diesel and gasoline engines, especially if in concert with other impacting devices. Felling of large trees (defined as dominant or subdominant trees in mature forests), truck horns, yarding tower whistles, and muffled or underground explosives are also included. Very few covered activities are expected to fall under this category, but some construction activities may result in this level of disturbance.*

Table 4.4-2
Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls

Time of Year	Level of Disturbance (feet) from Occupied Burrows		
	Low	Medium	High
April 1-August 15	600	1,500	1,500
August 16-October 15	600	600	1,500
October 16-March 31	150	300	1,500

Source: Yolo Habitat Conservancy. Yolo County Habitat Conservation Plan/Natural Community Conservation Plan [Table 4-2]. April 2018.

The project proponent may qualify for a reduced buffer size, based on existing vegetation, human development, and land use, if agreed upon

by CDFW and USFWS (California Department of Fish and Game 2012).

If the project does not fully avoid direct and indirect effects on nesting sites (i.e., if the project cannot adhere to the buffers described above), the project proponent will retain a qualified biologist to conduct preconstruction surveys and document the presence or absence of western burrowing owls that could be affected by the covered activity. Prior to any ground disturbance related to covered activities, the qualified biologist will conduct the preconstruction surveys within three days prior to ground disturbance in areas identified in the planning-level surveys as having suitable burrowing owl burrows, consistent with CDFW preconstruction survey guidelines (Appendix L, Take Avoidance Surveys). The qualified biologist will conduct the preconstruction surveys three days prior to ground disturbance. Time lapses between ground disturbing activities will trigger subsequent surveys prior to ground disturbance.

If the biologist finds the site to be occupied by western burrowing owls during the breeding season (February 1 to August 31), the project proponent will avoid all nest sites, based on the buffer distances described above, during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups that forage on or near the site following fledging). Occupancy of burrowing owl habitat during preconstruction surveys is confirmed at a site when at least one burrowing owl or sign (fresh whitewash, fresh pellets, feathers, or nest ornamentation) is observed at or near a burrow entrance. Construction may occur inside of the disturbance buffer during the breeding season if the nest is not disturbed and the project proponent develops an AMM plan that is approved by the Conservancy, CDFW, and USFWS prior to project construction, based on the following criteria:

- *The Conservancy, CDFW, and USFWS approves the AMM plan provided by the project proponent.*
- *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).*
- *The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.*
- *If the qualified biologist identifies a change in owl nesting and foraging behavior as a result of construction activities, the qualified biologist will have the authority to stop all construction related activities within the non-disturbance buffers described above. The qualified biologist will report this information to the Conservancy, CDFW, and USFWS within 24 hours, and the Conservancy will require that these activities immediately cease within the non-disturbance buffer. Construction cannot resume*

within the buffer until the adults and juveniles from the occupied burrows have moved out of the project site, and the Conservancy, CDFW, and USFWS agree.

- *If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the project proponent may remove the nondisturbance buffer, only with concurrence from CDFW and USFWS. If the burrow cannot be avoided by construction activity, the biologist will excavate and collapse the burrow in accordance with CDFW's 2012 guidelines to prevent reoccupation after receiving approval from the wildlife agencies.*

If evidence of western burrowing owl is detected outside the breeding season (December 1 to January 31), the project proponent will establish a non-disturbance buffer around occupied burrows, consistent with Table 4-2 (incorporated as Table 4.4-2 of this chapter), as determined by a qualified biologist. Construction activities within the disturbance buffer are allowed if the following criteria are met to prevent owls from abandoning important overwintering sites:

- *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).*
- *The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.*
- *If there is any change in owl roosting and foraging behavior as a result of construction activities, these activities will cease within the buffer.*
- *If the owls are gone for at least one week, the project proponent may request approval from the Conservancy, CDFW, and USFWS for a qualified biologist to excavate and collapse usable burrows to prevent owls from reoccupying the site if the burrow cannot be avoided by construction activities. The qualified biologist will install one-way doors for a 48-hour period prior to collapsing any potentially occupied burrows. After all usable burrows are excavated, the buffer will be removed and construction may continue.*

Monitoring must continue as described above for the nonbreeding season as long as the burrow remains active.

A qualified biologist will monitor the site, consistent with the requirements described above, to ensure that buffers are enforced and owls are not disturbed. Passive relocation (i.e., exclusion) of owls has been used in the past in the Plan Area to remove and exclude owls from active burrows during the nonbreeding season (Trulio 1995). Exclusion and burrow closure will not be conducted during the breeding season for any occupied burrow. If the Conservancy determines that

passive relocation is necessary, the project proponent will develop a burrowing owl exclusion plan in consultation with CDFW biologists. The methods will be designed as described in the species monitoring guidelines (California Department of Fish and Game 2012) and consistent with the most up-to-date checklist of passive relocation techniques12. This may include the installation of one-way doors in burrow entrances by a qualified biologist during the nonbreeding season. These doors will be in place for 48 hours and monitored twice daily to ensure that the owls have left the burrow, after which time the biologist will collapse the burrow to prevent reoccupation. Burrows will be excavated using hand tools. During excavation, an escape route will be maintained at all times. This may include inserting an artificial structure, such as piping, into the burrow to prevent collapsing until the entire burrow can be excavated and it can be determined that no owls are trapped inside the burrow. The Conservancy may allow other methods of passive or active relocation, based on best available science, if approved by the wildlife agencies. Artificial burrows will be constructed prior to exclusion and will be created less than 300 feet from the existing burrows on lands that are protected as part of the reserve system.

4.4-5 Have a substantial adverse effect, either directly or through habitat modifications, on Swainson's hawk or white-tailed kite. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The agricultural fields and other on-site open areas represent suitable foraging habitat for Swainson's hawk and white-tailed kite. The on-site Cultivated Land and Semiagricultural/Incidental to Agriculture land covers that currently provide Swainson's hawk and white-tailed kite foraging habitat would be permanently impacted by the proposed project through conversion of the existing agricultural landscape to urban uses. Removal of such areas could indirectly impact the species by reducing the availability of prey. In addition, the trees along the perimeter of the project site provide suitable nesting habitat for Swainson's hawk and white-tailed kite. The project would result in the removal of such trees, which could result in mortality or nest abandonment if Swainson's hawk and white-tailed kite are present during project construction. Additionally, the proposed project would include ground-disturbing activities, which could result in abandonment of active nests within the project vicinity.

Swainson's hawk and white-tailed kite are Yolo HCP/NCCP Covered Species. Thus, the proposed project would be required to comply with species-specific Yolo HCP/NCCP AMM16, which necessitates planning-level surveys and avoidance of potential Swainson's hawk and white-tailed kite nest trees. If avoidance is infeasible, AMM16 requires preconstruction surveys, non-disturbance buffers around any identified nests, and on-site monitoring to watch for agitated behavior. However, as the final application to the Yolo Habitat Conservancy has not yet been prepared, proper compliance with the applicable Yolo HCP/NCCP AMMs cannot be ensured at this time. Thus, the proposed project could have a substantial adverse effect on Swainson's hawk or white-tailed kite, either directly or through habitat modifications.

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a special-status wildlife species (Swainson's hawk and white-tailed kite) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Swainson's hawk and white-tailed kite are Yolo HCP/NCCP Covered Species. Thus, the proposed project would be subject to the following species-specific Yolo HCP/NCCP AMM to address potential impacts to the species. Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.4-5 *Yolo HCP/NCCP AMM16: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify any nesting habitat present within 1,320 feet of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.*

If a construction project cannot avoid potential nest trees (as determined by the qualified biologist) by 1,320 feet, the project proponent will retain a qualified biologist to conduct preconstruction surveys for active nests consistent, with guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000), between March 15 and August 30, within 15 days prior to the beginning of the construction activity. The results of the survey will be submitted to the Conservancy and CDFW. If active nests are found during preconstruction surveys, a 1,320-foot initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. Up to 20 Swainson's hawk nest trees (documented nesting within the last 5 years) may be removed during the permit term, but they must be removed when not occupied by Swainson's hawks.

For covered activities that involve pruning or removal of a potential Swainson's hawk or white-tailed kite nest tree, the project proponent will conduct preconstruction surveys that are consistent with the guidelines provided by the Swainson's Hawk Technical Advisory

Committee (2000). If active nests are found during preconstruction surveys, no tree pruning or removal of the nest tree will occur during the period between March 1 and August 30 within 1,320 feet of an active nest, unless a qualified biologist determines that the young have fledged and the nest is no longer active.

4.4-6 Have a substantial adverse effect, either directly or through habitat modifications, on other nesting birds and raptors protected under the MBTA and CFGC, including northern harrier. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

In addition to the special-status bird and raptor species listed above, other bird species protected by the MBTA and CFGC, such as northern harrier, have the potential to be present and nest within the project site. If such species are actively nesting within trees, shrubs, or ground cover planned for removal during project construction, incidental mortality of individuals could occur. Furthermore, construction activities adjacent to birds nesting in avoided areas could result in nest abandonment.

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on northern harrier and other nesting songbirds and raptor species protected under the MBTA and CFGC. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.4-6 *The removal of any buildings, trees, or shrubs shall occur from September 1 through December 15, outside of the avian nesting season. If removal of buildings, trees, or shrubs occurs, or construction begins between February 1 and August 31 (nesting season for passerine or non-passerine land birds) or between December 15 and August 31 (nesting season for raptors), a nesting bird survey shall be performed by a qualified ornithologist throughout the project site and all accessible areas within a 500-foot radius of proposed construction areas, at most, 14 days prior to the removal or disturbance of a potential nesting structure, tree, or shrub, or the initiation of other construction activities. During this survey, a qualified biologist shall inspect all potential nesting habitat (trees, shrubs, structures, grasslands, etc.) for nests in and immediately adjacent to the impact areas. If a break in construction activity of more than 14 days occurs, then subsequent surveys shall be conducted. A report of the survey findings shall be provided to the City of Winters Community Development Department and CDFG within 30 days of the completed survey and is valid for one construction season. If nests are not found, further mitigation is not required.*

If active raptor nests are found, construction activities shall not take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot non-disturbance buffer shall be established. The non-disturbance buffers may be reduced if a smaller, sufficiently protective buffer is approved by the City after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, the nest occupants' habituation to existing or ongoing activity, and nest concealment (i.e., whether visual or acoustic barriers occur between the proposed activity and the nest). A qualified biologist may visit the nest, as needed, to determine when the young have fledged the nest and are independent of the site or the nest can be left undisturbed until the end of the nesting season.

If the nest buffer is reduced but construction activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest in a way that would be considered a result of construction activities, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the agitated behavior. The revised non-disturbance buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the City.

Construction activities may only resume within the non-disturbance buffer after a follow-up survey by the biologist has been conducted and a report has been prepared indicating that the nest (or nests) are not active any longer, and that new nests have not been identified.

4.4-7 Have a substantial adverse effect, either directly or through habitat modifications, on special-status roosting bats. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The project site contains potential habitat for two special-status bat species, western red bat and pallid bat. Trees along the perimeter of the project site, which would be removed as part of the proposed project, represent potential roosting habitat for both species. Should western red bat and/or pallid bat be roosting in trees proposed for removal as part of the proposed project, the foregoing species could be injured or killed.

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on special-status bat species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.4-7 *Prior to the commencement of construction activities, a qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees within the proposed impact footprint and within the project vicinity. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. The results of the assessment shall be submitted for review and approval to the City of Winters Community Development Department.*

- *If potential roosting habitat is identified (cavities in trees) within the areas proposed for impact, the biologist shall survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys shall be conducted using methods that are considered acceptable by bat experts after consultation with CDFW. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof.*
- *If roosting bats are identified within any of the trees planned for removal, or if presence is assumed, the trees shall be removed outside of pup season, only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree.*
- *Additionally, all other tree removal shall be conducted from January through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.*
- *If roosting bats are identified within any trees planned for removal, a bat exclusion plan shall be prepared by a qualified bat biologist describing the methods to be used to humanely exclude bats prior to disturbance. The plan shall be submitted for review and approval to the City of Winters Community Development Department after consultation with CDFW and shall be implemented prior to the start of construction.*
- *The requirements for the bat expert and City to consult with CDFW prior to approving survey methods and a bat exclusion plan shall be satisfied either where CDFW responds to requests for consultation within 30 days of the requests or where the bat expert and City have attempted to consult with CDFW but CDFW has failed to respond to the request within 30 days of the placement of the request.*

4.4-8 Have a substantial adverse effect, either directly or through habitat modifications, on American badger. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The proposed project would result in the permanent conversion of the on-site Cultivated Land and Semiagricultural/Incidental to Agriculture land covers to urban uses. The foregoing land covers include non-native grasslands that provide potential habitat for American badger. Additionally, the proposed project would result in disturbance to the roadside ditch through construction of the proposed improvements to SR 128. If the species is present in the aforementioned areas during project construction, American badgers could be directly impacted.

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a special-status wildlife species (American badger) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.4-8 *Within 48 hours prior to the commencement of construction, a preconstruction survey for American badger shall be conducted by a qualified biologist. A report summarizing the results of the preconstruction survey shall be submitted for review and approval to the City of Winters Community Development Department. If American badger or burrows with American badger are found on-site during the preconstruction survey, consultation with CDFW shall occur prior to the initiation of any construction activities, to determine an appropriate burrow excavation and/or relocation method. If American badger is not found, further mitigation shall not be required.*

4.4-9 Have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. Based on the analysis below, the impact is *less than significant*.

As previously discussed, the project site is periodically tilled for row crops, hay, or other dry farming purposes. The routine disturbance as part of the site's agricultural maintenance activities prevents the growth of riparian habitat or other Sensitive Natural Communities within the project site. Additionally, the field survey conducted as part of the Special-Status Plant Survey Report did not identify any riparian habitat or Sensitive Natural Communities within the project site or frontage areas proposed for installation of culverts.

The majority of the project site is designated as Cultivated Land and Semiagricultural/Incidental to Agriculture according to the Yolo Habitat Conservancy Geomapper, and a small potion associated with the former Willow Canal is designated as Lacustrine and Riverine.[16] Thus, the project site does not include Valley Foothill Riparian or Valley Oak Woodland land covers, which are designated Sensitive Natural Communities.

Based on the above, the proposed project would not have a substantial adverse effect on riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations or by the CDFW or USFWS, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.4-10 Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Wetlands are generally considered to be areas that are periodically or permanently inundated by surface or groundwater, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions.

As previously discussed, an approximately 0.079-acre roadside ditch parallel to SR 128 occurs within the project site and a total of 0.007-acre of roadside ditch is located within the PG&E detention basin and I-505 ditch. According to Jurisdictional Determination Verification Letters issued by USACE on March 29, 2019 and April 27, 2022, none of the roadside ditches are waters of the U.S. and regulated under Section 404 of the CWA.

However, the aquatic features have not been evaluated for their potential as being considered waters of the State. The RWQCB and CDFW have jurisdiction over modifications to stream channels, river banks, lakes, and other wetland features. The jurisdictional authority of the RWQCB is established pursuant to Section 401 of the CWA. The RWQCB also has jurisdiction over waters of the State under the Porter-Cologne Water Quality Control Act. As such, the proposed project could be required to obtain a Section 401 permit from the RWQCB and would be subject to all the conditions set forth therein.

[16] Yolo Habitat Conservancy. *Geomapper*. Available at: https://yolo.maps.arcgis.com/apps/webappviewer/index.html?id=3e5da77c78e844f085287e23441a5aa1. Accessed June 2024.

Based on the above, without compliance with Section 401 of the CWA, the proposed project could have a substantial adverse effect on State-protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.4-10 *Prior to the commencement of ground-disturbing activities, the project applicant shall apply to the Central Valley Regional Water Quality Control Board (RWQCB) for a Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements for Projects Involving Discharge of Dredged and/or Fill Material to Waters of the State. Written verification of the Section 401 permit shall be submitted to the City of Winters Community Development Department. The project applicant shall be responsible for conducting all project activities in accordance with the permit provisions outlined therein.*

4.4-11 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Based on the analysis below, the impact is *less than significant*.

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation also occurs when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance, such as fire, mudslide, or grading activities. Wildlife corridors mitigate the effects of fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thereby reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

Existing land uses in the project vicinity include a single-family residential development to the west, agricultural uses to the north, and commercial and industrial uses to the southeast. SR 128 bounds the project site to the south. As such, the developed nature of the surrounding area limits the potential for use of the project site as a wildlife movement corridor. In addition, the ongoing agricultural uses within the project site result in regular disturbance of the site, limiting the site's potential as a wildlife nursery site. Furthermore, while a roadside ditch is located on-site, the ditch does not contain water year-round, and thus, the project site does not contain sustained streams or other waterways that could be used by migratory fish or as a wildlife corridor for other wildlife species.

Based on the above, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.4-12 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Based on the analysis below, the impact is *less than significant*.

The perimeter of the project site contains numerous trees, including valley oak, paradox walnut, English walnut, olive, and common fig along the southern border; volunteer domestic almond trees along the northern, eastern, and western boundaries; and two large coast redwoods located immediately north of the center of the southern property line. The proposed project could require the removal of a number of trees on-site.

Pursuant to Section 12.08.010 of the Winters Municipal Code, an application to the City's tree commission is required to plant, move, remove, or replace a tree. Applications are required to state the number and type of trees proposed for removal and any other information that the City Manager finds reasonably necessary to make a fair determination of whether or not authority should be issued. As part of the project conditions, the project applicant would obtain authorization from the City Manager to plant, remove, or replace any tree on the project site prior to the initiation of any such activities. Although landscaping for the proposed project would include the planting of one tree per lot in accordance with Winters Municipal Code Section 12.08.100, as well as various street trees and trees within the commercial and park areas of the project site, compliance with Winters Municipal Code Chapter 12.08 cannot be ensured at this time as the final design of the new landscaping selection and layout has not yet been prepared.

Based on the above, the proposed project could conflict with a local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.4-12 *Pursuant to Winters Municipal Code Section 12.08.010, prior to the removal of any trees as part of the proposed project, the project applicant shall submit an application for review and approval to the City of Winters Tree Commission. Authority to remove trees shall be at the discretion of the City Manager, pursuant to the action taken by the Tree Commission. The application shall state the number and type of trees proposed to be removed or replaced, and other pertinent information*

as the City Manager finds reasonably necessary to make a fair determination of whether or not authority for tree removal shall be issued.

4.4-13 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Applicants of development projects within the Yolo HCP/NCCP permit area are required to complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an AMM plan, and fees or equivalent mitigation. Land cover conversion fees would be applied for the proposed project's land cover impacts, in accordance with Yolo HCP/NCCP guidelines. The Yolo HCP/NCCP land cover fee is currently $16,559 per acre for most land covers. It should be noted that land cover fees may not be required for the Lacustrine and Riverine cover type, as the associated Willow Canal has been relocated; however, payment of fees for the conversion of land covers is ultimately subject to the discretion of the Yolo Habitat Conservancy.

In addition, pursuant to Yolo HCP/NCCP Chapter 4, the Yolo HCP/NCCP AMMs are intended to ensure that adverse effects on Covered Species and natural communities are avoided and minimized. As previously discussed in this chapter in the species-specific analyses of potential impacts that could occur to Yolo HCP/NCCP Covered Species, the proposed project would be subject to the applicable Yolo HCP/NCCP AMMs. However, without compliance with the aforementioned provisions of the Yolo HCP/NCCP, the project would result in a significant impact.

Based on the above, without compliance with all applicable AMMs set forth by the Yolo HCP/NCCP, the proposed project could conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

4.4-13(a) *Yolo HCP/NCCP AMM3: Where natural communities and covered species habitat are present, workers will confine land clearing to the minimum area necessary to facilitate construction activities. Workers will restrict movement of heavy equipment to and from the project site to established roadways to minimize natural community and covered species habitat disturbance. The project proponent will clearly identify boundaries of work areas using temporary fencing or equivalent and will identify areas designated as environmentally sensitive. All construction vehicles, other equipment, and personnel will avoid these designated areas.*

4.4-13(b) *Yolo HCP/NCCP AMM4: To prevent injury and mortality of giant garter snake, western pond turtle, and California tiger salamander [It should be noted that California tiger salamander would not be potentially impacted by the proposed project], workers will cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during non-working hours. The construction contractor will inspect open trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.*

4.4-13(c) *Yolo HCP/NCCP AMM5: Workers will minimize the spread of dust from work sites to natural communities or covered species habitats on adjacent lands.*

4.4-13(d) *Yolo HCP/NCCP AMM6: All construction personnel will participate in a worker environmental training program approved/authorized by the Conservancy and administered by a qualified biologist. The training will provide education regarding sensitive natural communities and covered species and their habitats, the need to avoid adverse effects, state and federal protection, and the legal implications of violating the FESA and NCCPA Permits. A pre-recorded video presentation by a qualified biologist shown to construction personnel may fulfill the training requirement.*

4.4-13(e) *Yolo HCP/NCCP AMM7: Workers will direct all lights for nighttime lighting of project construction sites into the project construction area and minimize the lighting of natural habitat areas adjacent to the project construction area.*

4.4-13(f) *Yolo HCP/NCCP AMM8: Project proponents should locate construction staging and other temporary work areas for covered activities in areas that will ultimately be a part of the permanent project development footprint. If construction staging and other temporary work areas must be located outside of permanent project footprints, they will be located either in areas that do not support habitat for covered species or are easily restored to prior or improved ecological functions (e.g., grassland and agricultural land). Construction staging and other temporary work areas located outside of project footprints will be sited in areas that avoid adverse effects on the following:*

- *Serpentine, valley oak woodland, alkali prairie, vernal pool complex, valley foothill riparian, and fresh emergent wetland land cover types.*
- *Occupied western burrowing owl burrows.*
- *Nest sites for covered bird species and all raptors, including noncovered raptors, during the breeding season.*

Project proponents will follow specific AMMs for sensitive natural communities (Section 4.3.3, Sensitive Natural Communities) and covered species (Section 4.3.4, Covered Species) in temporary staging and work areas. For establishment of temporary work areas outside of the project footprint, project proponents will conduct surveys to determine if any of the biological resources listed above are present.

Within one year following removal of land cover, project proponents will restore temporary work and staging areas to a condition equal to or greater than the covered species habitat function of the affected habitat. Restoration of vegetation in temporary work and staging areas will use clean, native seed mixes approved by the Conservancy that are free of noxious plant species seeds.

4.4-13(g) *To ensure avoidance and minimization of impacts to the species covered by the Yolo HCP/NCCP, which could be impacted by the project, the project applicant shall obtain coverage under the Yolo HCP/NCCP for on-site, and as may be determined necessary by Yolo Habitat Conservancy, for off-site infrastructure work, for each phase of development. In addition to payment of any applicable HCP/NCCP fees, the applicant shall implement Yolo HCP/NCCP AMMs identified in Mitigation Measures 4.4-2(a) and 4.4-2(b), 4.4-3, 4.4-4, and 4.4-5.*

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

The geographic scope for the cumulative biological resources analysis generally includes buildout of the proposed project in conjunction with the development of the Winters General Plan planning area. For more details regarding the cumulative setting, refer to Chapter 5, Statutorily Required Sections, of this EIR.

4.4-14 Cumulative loss of habitat for special-status species. Based on the analysis below, the project's impact is *less than cumulatively considerable*.

The cumulative analysis in this EIR is based upon development of the proposed project in conjunction with buildout of the Winters General Plan planning area. The City of Winters General Plan EIR concluded that the combination of urban development in individual towns and cities throughout the Sacramento Valley on agricultural fields, pastures, and even small areas of wetlands, which provide habitat for special-status plants and animals, would be substantial. The General Plan includes policies to cooperate with surrounding jurisdictions in the preparation of a regional mitigation program for endangered or threatened species, which could help to compensate for the cumulative loss of habitat. In addition, mitigation measures set forth by the General

Plan EIR include the use of native plant species for landscaping; minimization of disturbance to areas of dense riparian and marshland cover; coordination with CDFW and the USACE for proposed channel modifications; designing flood control or drainage improvements to existing channels and other waterways to minimize disturbance to wetland vegetation; special-status plant and wildlife surveys and raptor nest surveys prior to approval of development plans; preparation of a Swainson's Hawk Habitat Resource Plan (HRP); and protection of elderberry plants. However, the General Plan EIR determined that impacts to vegetation and the loss of Swainson's hawk habitat from buildout of the General Plan would be cumulatively significant.

As discussed above, the study area contains three Yolo County HCP/NCCP land covers, including Cultivated Land, Semiagricultural/Incidental to Agriculture, and Lacustrine and Riverine. As discussed throughout this chapter, the above areas represent potential habitat for various special-status species. The portion of the project site identified as Lacustrine and Riverine is associated with the former Willow Canal, which has been replaced with an underground pipe, and is not located within the project site.

This chapter provides a wide range of mitigation to minimize potential adverse effects associated with the proposed project to habitat for special-status species. For example, mitigation measures have been set forth in this chapter to ensure that the proposed project complies with all applicable Yolo HCP/NCCP AMMs, including, but not limited to, AMMs to address potential impacts to Yolo HCP/NCCP Covered Species, including northwestern pond turtle, giant garter snake, tricolored blackbird, burrowing owl, Swainson's hawk, and white-tailed kite, as well as general construction, operations, and maintenance AMMs. In addition, the proposed project would be required to pay land cover conversion fees to with the Yolo Habitat Conservancy.

With respect to special-status species that are not covered under the Yolo HCP/NCCP, such as recurved larkspur, dwarf downingia, bearded popcornflower, northern harrier, western red bat, and pallid bat, this chapter sets forth mitigation to ensure that potential impacts are reduced to a less-than-significant level. For example, preconstruction plant and wildlife surveys would be conducted prior to the commencement of construction, habitat would be avoided or preserved, and conditions of take authorization would be required. In addition, it should be noted that while the proposed project would result in the loss of a portion of the existing on-site habitat, the proposed project would include a total of approximately 9.1 acres of open space preserved on-site.

Overall, with incorporation of the mitigation measures set forth herein, the proposed project would be required to comply with all applicable Yolo HCP/NCCP AMMs and pay all applicable land cover conversion fees to address Covered Activities within the study area. The mitigation measures set forth herein additionally address potential impact to biological resources that are not covered under the Yolo HCP/NCCP. As such, the proposed project would not result in substantial adverse effects to biological resources protected by CEQA.

Additionally, the Yolo HCP/NCCP requires the Yolo Habitat Conservancy to protect approximately 33,300 acres over 50 years, primarily through the acquisition of habitat conservation easements on agricultural land funded with development fees paid by

project proponents. The Yolo HCP/NCCP coordinates conservation efforts to ensure that the lands are selected consistent with a conservation strategy based on biological criteria, including the selection of lands that provide habitat to multiple species and are located near existing protected lands and riparian areas. The Yolo Habitat Conservancy regularly consults with the CDFW and the USFWS to ensure that the Yolo HCP/NCCP is successfully and sustainably implemented. As such, the Yolo HCP/NCCP functions as the regional strategy for preserving natural habitat, and compliance with the Yolo HCP/NCCP would prevent cumulative impacts. It should be noted that projects within the City limits, including project associated with buildout of the Winters General Plan planning area, as well as the list of present and probable future projects, would all be required to comply with the Yolo HCP/NCCP.

As further discussed in Chapter 5 of this EIR, CEQA Guidelines Section 15064, Subdivision (h)(5) states, "[…]the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable.

In addition, the courts have explicitly rejected the notion that a finding of significance is required simply because a proposed project would result in a net loss of habitat. "[M]itigation need not account for every square foot of impacted habitat to be adequate. What matters is that the unmitigated impact is no longer significant," (*Save Panoche Valley v. San Benito County* [2013] 217 Cal.App.4th 503, 528, quoting *Banning Ranch Conservancy v. City of Newport Beach* [2012] 211 Cal.App.4th 1209, 1233).

The above discussion provides substantial evidence that, while the combined effects on biological resources resulting from approved/planned development throughout the City of Winters would be considered significant, the proposed project's incremental contribution to the significant cumulative effect would be reduced with implementation of the mitigation measures required in this EIR.

Based on the above, although cumulative buildout of the City of Winters would result in a significant cumulative impact related to the loss of special-status species habitat, the proposed project's contribution to the significant impact, through incorporation of the mitigation measures set forth herein, would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

4.5 Cultural and Tribal Cultural Resources

4.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

4.5.1 INTRODUCTION

The Cultural and Tribal Cultural Resources chapter of the EIR addresses known historic and prehistoric cultural resources, as well as tribal cultural resources and paleontological resources in the vicinity of the project area. Cultural resources can be categorized into prehistoric or historic resources. Tribal cultural resources are those sites and artifacts associated with indigenous, non-Euroamerican populations, generally prior to contact with people of European descent. Historic resources include structures, features, artifacts, and sites that date from Euroamerican settlement of the region. The chapter summarizes the existing setting with respect to cultural, tribal cultural, and paleontological resources, identifies thresholds of significance, evaluates project impacts to such resources, and sets forth mitigation measures as necessary.

Information presented in the chapter is primarily drawn from the Cultural and Paleontological Resources Inventory prepared by Natural Investigations Company, Inc. (Natural Investigations).[1]

4.5.2 EXISTING ENVIRONMENTAL SETTING

The following sections provide further details regarding the paleontological overview, prehistoric overview, ethnographic overview, and historic overview of the project area, as well as a description of any identified cultural resources associated with the project site and a discussion of tribal cultural resources.

Paleontological Overview

Yolo County has 133 recorded fossil localities. Of these localities, 20 have yielded vertebrate fossils, 111 have yielded invertebrates or microfossils, half of which are marine, and two have yielded plant fossils. Of the 20 localities with vertebrates, 11 contain marine specimens from the Pliocene-age Tehama Formation (5.3–2.6 million years), which is found in the Coast Ranges province in the western margin of the County and is considered highly sensitive for paleontological resources. The Eocene-aged Capay Formation (55.8–33.9 million years), from which numerous invertebrate marine fossils have been recovered, is exposed on the western side of the Capay Valley and is also considered to have a high paleontological sensitivity. The nine vertebrate localities with non-marine specimens have yielded Rancholabrean fauna, including mammoth, giant ground sloth, saber-toothed cat, horse, and deer/elk, dating from 300,000–12,000 years ago during the Middle to Late Pleistocene. Identified rock units are the Modesto, Montezuma, and Red Bluff formations, which depending on location, have a moderate to high paleontological sensitivity for non-marine vertebrate fossils.

None of the formations that have yielded significant fossils in Yolo County are present within the project site and vicinity. Geologic mapping indicates the project area is underlain by Older alluvial deposits (Qoa3 and Qoa4). The two units within the project area range in age from the Middle to Late Pleistocene (781,000–11,700 years). Little or no original alluvial surfaces are preserved in

[1] Natural Investigations Company, Inc. *Cultural and Paleontological Resources Inventory for the Winters 71, City of Winters, Yolo County, California.* May 1, 2019.

these alluvial fan, stream terrace, basin and channel deposits, which are moderately to deeply dissected.

Prehistoric Overview

A tripartite classification scheme for cultural change in California's Sacramento Valley, Sacramento–San Joaquin Delta, and San Joaquin Valley was developed as the result of efforts of a number of researchers since the 1930s and has been further refined over the succeeding decades. The general chronological sequence for the Central Valley is: Paleo-Indian (11,500–8550 cal [calibrated] B.C.), Lower Archaic (8550–5550 cal B.C.), Middle Archaic (5550–550 cal B.C.), Upper Archaic (550 cal B.C.–cal A.D. 1100), and Emergent or Late Prehistoric Period (cal A.D. 1100–Historic Contact). Subsequent to the Paleo-Indian and Lower Archaic periods, the cultural framework within the greater study region (i.e., Central Valley) is further divided into three regionally based patterns. Specific to Central Valley prehistory and the current study region, the regionally based patterns defined by Fredrickson are the Windmiller, Berkeley, and Augustine patterns. The following discussion presents additional detail regarding each of the aforementioned prehistoric periods.

Paleo-Indian and Lower Archaic Periods

Little evidence exists of the Paleo-Indian and Lower Archaic periods in the Central Valley. As shown by geoarchaeological studies, large segments of the Late Pleistocene landscape throughout the central California lowlands have been buried or removed by periodic episodes of deposition or erosion. Periods of climate change and associated alluvial deposition occurred at the end of the Pleistocene (approximately 9050 cal B.C.) and at the beginning of the early Middle Holocene (approximately 5550 cal B.C.). Earlier studies had also estimated that Paleo-Indian and Lower Archaic sites along the lower stretch of the Sacramento River and San Joaquin River drainage systems had been buried by Holocene alluvium up to 33 feet (10 meters) thick that was deposited during the last 5,000 to 6,000 years. The formation of the Sacramento–San Joaquin Delta began during the early Middle Holocene. After approximately 1,000 cal B.C. during the Late Holocene, renewed episodes of alluvial fan and floodplain deposition occurred.

The archaeological evidence that is available for the Paleo-Indian Period is comprised primarily by basally thinned, fluted projectile points. The points are morphologically similar to well-dated Clovis points found elsewhere in North America. In the Central Valley, fluted points have been recovered from remnant features of the Pleistocene landscape at three archaeological localities: Woolfsen Mound [CA-MER-215] in Merced County, Tracey Lake in San Joaquin County, and Tulare Lake basin in Kings County.

The beginning of the Lower Archaic Period coincided with the mid-Holocene climatic change and generally drier conditions that brought about the drying up of many pluvial lakes across California. The people from this time period appear to have been focused on the consumption of plant foods rather than food obtained by hunting, while settlement appears to have been semisedentary with little emphasis on wealth. Most tools were manufactured of local materials and exchange occurred on an infrequent basis. Distinctive artifact types of this period are large dart points, the milling slab, and handstones.

Middle Archaic Period

For the first 3,000 years of the Middle Archaic Period, archaeological sites on the valley floor are relatively scarce, in part due natural geomorphic processes, unlike the foothills where a number of buried sites have been found. On the valley floor, sites are more common after 2,550 cal B.C.

The archaeological record in the valley and foothills indicates the subsistence system during this period included a wide range of natural resources (e.g., plants, small and large mammals, fish, and waterfowl) that indicate people followed a seasonal foraging strategy. Some researchers suggest populations may have occupied lower elevations during the winter and shifted to higher elevations in the summer. Other researchers suggest that residential stability increased along Central Valley river corridors during the Middle Archaic Period.

Excavations at Windmiller Pattern sites have yielded abundant remains of terrestrial fauna (deer, tule elk, pronghorn, and rabbits) and fish (sturgeon, salmon, and smaller fishes). Projectile points with a triangular blade and contracting stems are common at Windmiller Pattern sites. A variety of fishing implements such as angling hooks, composite bone hooks, spears, and baked clay artifacts, which may have been used as net or line sinkers, are also relatively common. The points are classified within the Sierra Contracting Stem and Houx Contracting Stem series. The presence of milling implements (grinding slabs, handstones, and mortar fragments) indicate acorns or seeds were an important part of the Middle Archaic diet. In the foothills, pine nut and acorn remains have been recovered from sites in Fresno (CA-FRE-61) and Calaveras (CA-CAL-629/630 and CA-CAL-789) counties.

The variety of artifacts recovered from Windmiller Pattern sites includes shell beads, ground and polished charmstones, and bone tools, as well as impressions of twined basketry. Baked clay items include pipes, discoids, and cooking stones as well as net sinkers. Burials in cemetery areas, which were separate from habitation areas, were accompanied by a variety of grave goods. The presence of an established trade network is indicated by the recovery of Olivella shell beads, obsidian tools, and quartz crystals. Obsidian sources during the Middle Archaic included quarries in the North Coast Ranges, eastern Sierra, and Cascades.

Upper Archaic Period

Better understood than any of the preceding periods, the Upper Archaic Period is characterized by a shift over a 1,000-year period to the more specialized, adaptive Berkeley Pattern. Excavated archaeological sites signal an increase in mortars and pestles, as well as archaeobotanical remains, accompanied by a decrease in slab milling stones and handstones. Archaeologists generally agree mortars and pestles are better suited to crushing and grinding acorns, while milling slabs and handstones may have been used primarily for grinding wild grass grains and seeds. The proportional change indicates a shift during the Berkeley Pattern to a greater reliance on acorns as a dietary staple. Innovations such as new types of shell beads, charmstones, bone tools, and ceremonial blades are additional evidence of the more specialized technology present during this period.

The artifact assemblage in Berkeley Pattern sites demonstrates that populations continued to exploit a variety of natural resources. In addition to seeds and acorns, hunting persisted as an important aspect of food procurement. Large, mounded villages that developed around 2,700 years ago in the Delta region included accumulations of habitation debris and features, such as hearths, house floors, rock-lined ovens, and burials. The remains of a variety of aquatic resources in the large shell midden/mounds that developed near salt or fresh water indicate exploitation of shellfish was relatively intensive.

Berkeley Pattern artifact assemblages are also characterized by Olivella shell beads, Haliotis ornaments, and a variety of bone tool types. Mortuary practices continue to be dominated by interment, although a few cremations have been discovered at sites dating to this period. Trade

networks brought obsidian toolstone to the Central Valley from the North Coast Ranges and the east side of the Sierra Nevada Range.

Emergent or Late Historic Period

The comprehensive archaeological record for the Emergent Period, or Late Prehistoric Period, in the Central Valley shows an increase in the number of archaeological sites associated with the Augustine Pattern in the lower Sacramento Valley/Delta region, as well as an increase in the number and diversity of artifacts. The Emergent Period was shaped by a number of cultural innovations, such as the bow and arrow, and more elaborate and diverse fishing technology, as well as an elaborate social and ceremonial organization. Dart and atlatl technology was effectively replaced by the introduction of the bow and arrow. Additionally, the cultural patterns typical of the Augustine Pattern as viewed from the archaeological record are reflected in the cultural traditions known from historic period Native American groups.

The faunal and botanical remains recovered at Emergent Period archaeological sites indicate the occupants relied on a diverse assortment of mammals, fish, and plant parts, including acorns and pine nuts. Hopper mortars, shaped mortars and pestles, and bone awls used to produce coiled baskets are among the variety of artifacts recovered from Augustine Pattern sites. The toolkit during this period also included bone fish hooks, harpoons, and gorge hooks for fishing, as well as the bow and arrow for hunting. Small, Gunther barbed series projectile points have been found at sites dating to the early part of the period, while Desertside notched points appear later in the period. The Stockton serrated arrow point also appears in archaeological assemblages dating to this period and, in some parts of the lower Sacramento Valley, Cosumnes Brownware is present. The appearance of ceramics during this period is likely a direct improvement on the prior baked clay industry.

During the Emergent Period, numerous villages were established along the valley floor sloughs and river channels and along the foothills sidestreams. House floors or other structural remains have been preserved at some sites dating to this period (e.g., CA-CAL-1180/H, CA-SAC-29, CA-SAC-267). The increase in sedentism and population growth led to the development of social stratification, with an elaborate social and ceremonial organization. Examples of items associated with rituals and ceremonials include flanged tubular pipes and baked clay effigies representing animals and humans. Mortuary practices changed to include flexed burials, cremation of high-status individuals, and pre-interment burning of offerings in a burial pit. Currency, in the form of clamshell disk beads, also developed during this period together with extensive exchange networks.

Ethnographic Overview

The project site is located in a region historically occupied by the Patwin. Patwin territory encompassed a roughly 90-mile (north-south) by 40-mile (east-west) area between the Sacramento River on the east and the Coast Range foothills on the west, and extending north from Suisun Bay, past the Sutter Buttes. The Patwin excluded the banks of the Sacramento River until north of its fork with the Feather River lands. Research indicates the Patwin reached the Carquinez/Suisun area by about 1,500 years ago and occupied the southern end of Napa County. Neighboring groups included the Nisenan and Plains Miwok to the east, Bay Miwok and Costonoan south across Suisun Bay, Coast Miwok, Wappo, Lake Miwok, and Pomo to the west, and Nomlaki and Konkow to the north.

Patwin language was of the Wintuan family, which is usually considered a member of the larger Penutian linguistic stock that encompasses most of central California. Recent analysis indicates Wintuans independently entered California from Oregon. The Southern Wintu language branch includes Patwin proper, which would have been spoken by people in the project vicinity, and Southern Patwin.

The history of the Patwin is relatively incomplete with the most comprehensive information provided by Spanish mission records, diaries, and journals. Additional material is derived from studies completed in the first half of the 20th century by ethnographers such as Powers, Merriam, and Gifford, and in the latter half by Bennyhoff and others.

Patwin is the native word for "people" (*patwin*) and was used by several tribelets to designate themselves but did not suggest political unity. Patwin villages were generally established in the river valleys. Bear, Capay, Cortina, Long, and Napa Valley were some of the more populous. The historic Southern Patwin village of *Liwai* was situated along Putah Creek near present-day Winters. Earth-covered, semi-subterranean structures and dwellings in the villages included a ceremonial dance house, a sweat lodge, and family dwellings. A cemetery was typically located at one end of the village.

The fundamental subsistence economy of the Patwin was fishing, hunting, and collecting plant foods. Patwin, like the majority of native Californians, relied on acorns as a staple food. Oak groves were owned communally by the tribelet. Additional plant foods included buckeye, juniper berries, pine nuts, seeds, manzanita, blackberries, wild grapes, brodiaea bulbs, tule roots, and greens. A variety of fish, waterfowl, turtle, and shellfish were abundant near the villages scattered along the Napa and Sacramento rivers, Cache, Putah and Ulas Creeks, San Pablo Bay, and Suisun Bay. Grasshoppers, quail, mud hen, rabbits, and large game such as tule elk, deer, pronghorn, and bear were also captured.

The Patwin had extensive contact with Franciscan missionaries beginning in the late 1700s. Patwin neophytes were brought to the three missions around San Francisco Bay (San Francisco, San José, and Sonoma). Their population declined drastically from missionization, introduced diseases, military conflicts, Mexican and American settlement starting in the 1830s and 1840s, and displacement. Ten villages in Southern Patwin territory had a population of 527 in 1827, but Kroeber did not find Southern Patwin in 1924. By 1906, the population for all Patwin was placed at only 185, and a mere 11 tribal members found by the Bureau of Indian Affairs in 1972. Today, people of Wintun descent live on the Colusa, Cortina, Grindstone, Redding, and Rumsey rancherias in Colusa, Glenn, Shasta and Yolo counties, as well as the Round Valley Reservation in Mendocino County.

Historic Overview

The following sections provide an overview of the Spanish, Mexican, and American Periods, as well as local history associated with the project area.

Spanish, Mexican, and American Periods

Post-contact history for the State of California is generally divided into the following three periods: the Spanish Period (1769 to 1822); the Mexican Period (1822 to 1848); and the American Period (1848 to present). Although brief visits by Spanish, Russian, and British explorers occurred from 1529 to 1769, the beginning of Spanish settlement in California occurred in 1769 at San Diego.

Between 1769 and 1823, 21 missions were established by the Spanish and the Franciscan Order along the coast between San Diego and San Francisco.

The Spanish expeditions into the Central Valley in 1806 and 1808 led by Lieutenant Gabriel Moraga explored along the main rivers, including the American, Calaveras, Cosumnes, Feather, Merced, Mokelumne, Sacramento, San Joaquin, and Stanislaus. He is said to have named the lower Sacramento River and the valley region "Sacramento" ("the Holy Sacrament"). In 1813, Moraga led another expedition in the lower portion of the Central Valley and gave the San Joaquin River its name. The abundance of wildlife, such as waterfowl, fish, and fur-bearing animals, within or along the banks of the rivers attracted immigrants to this region. The last Spanish expedition into California's interior was led by Luis Arguello in 1817 and traveled up the Sacramento River, past the future site of the city of Sacramento to the mouth of the Feather River, before returning to the coast.

After the end of the Mexican Revolution (1810 to 1821), the Mexican Period is marked by extensive land grants, most of which were in the interior of the State, as well as by exploration by American fur trappers west of the Sierra Nevada Mountains. Most of the land grants to Mexican citizens in California (*Californios*) were in the interior because the Mexican Republic sought to increase the population away from the more settled coastal areas where the Spanish settlements had been concentrated. The largest land grants in the Sacramento Valley were awarded to John Sutter who had become a Mexican citizen. In 1839, he founded a trading and agricultural empire called New Helvetia that was headquartered at Sutter's Fort near the divergence of the Sacramento and American rivers in today's City of Sacramento. Only a small portion of the 48,839-acre New Helvetia land grant was located in Sacramento County; the majority was located in today's Sutter and Yuba counties on the east and west sides of the Feather River.

The first American trapper to enter California, Jedediah Smith, explored along the Sierra Nevada in 1826 and in 1827 he entered the Sacramento Valley, traveling along the American and Cosumnes rivers. In 1827, Smith also traveled through the San Joaquin Valley. Other trappers soon followed, including employees of the Hudson's Bay Company in 1832. Between 1830 and 1833, and again in 1837, diseases introduced by the non-indigenous explorers, trappers, and settlers, as well as relocation to the missions, military raids, and settlement by non-native groups, decimated native Californian populations, communities, and tribes in the Sacramento and San Joaquin valleys.

The American Period was initiated in 1848 with the signing of the Treaty of Guadalupe Hidalgo, which ended the Mexican–American War (1846-1848), and California became a territory of the United States. Gold was discovered at Sutter's Mill on the American River in Coloma the same year, and by 1849, nearly 90,000 people had journeyed to the gold fields. In 1850, largely as a result of the Gold Rush, California became the 31st state. Four years later, the bustling boomtown of Sacramento became the State capital. In contrast to the economic boom and population growth that enabled statehood, the loss of land and territory (including traditional hunting and gathering locales), malnutrition, starvation, and violence further contributed to the decline of indigenous Californians in the Central Valley and all along the Sierra Nevada foothills.

Local History

Five land grants, two of which overlapped into neighboring counties, were issued in present-day Yolo County during the Mexican Period. Rancho Río de los Putos was granted in 1842 by Governor Juan Alavarado to William Wolfskill, an American who had established a settlement

within the Pueblo de Los Angeles in 1831, and who became a Mexican citizen. The 17,755-acre rancho was located along the banks of Putah Creek and overlapped today's Solano County. Beginning in mid-1842, the rancho was occupied by William Wolfskill's brother, John Reid Wolfskill, who was one of the first Americans to settle in what is now Yolo County. John Wolfskill is credited with founding the horticultural industry in the Sacramento Valley with his importation of plants and cuttings that flourished in this part of the State. Following the end of the Mexican–American War, a claim for the rancho was filed with the Public Land Commission in 1852, and was finally confirmed to William Wolfskill in 1858. The northern boundary for Rancho Río de los Putos is immediately south of the project site along State Route (SR) 128 (also known as Grant Avenue).

In 1865, Theodore Winters, a stockman and race horse breeder, purchased a portion of Rancho Río de los Putos from Wolfskill. In 1875, a town was laid out on two 40-acre lots, one donated by Winters and the other donated by D. P. Edwards. The town plat, located on the north bank of Putah Creek, was recorded on May 22, 1875. The land donations for the town site and money from Winters allowed the Vaca Valley Railroad to construct a railroad bridge across Putah Creek to reach Winters from Vacaville, and to build a depot at the northern terminus of the line. The line was extended two years later to Madison and renamed the Vaca Valley and Clear Lake Railroad. The railroad and local agriculture prompted growth of the town named after Theodore Winters and incorporation of the City of Winters in 1898.

Yolo County farmers were among the first to build irrigation canals in the Sacramento Valley. James Moore was the first to claim water from Cache Creek and built an irrigation ditch in 1856 (known as Moore's Ditch). Also in the late 1850s, Jerome Davis supplied water to his orchards and vineyards in today's City of Davis. In the vicinity of Winters, canal development can be traced back at least to the late 1800s. In 1903, the Yolo County Consolidated Water Company (YCCWC) bought many existing ditch systems and constructed canals to supply local ditch companies in the Winters, Madison, and Davis areas.

The Capay Canal was one of YCCWC's facilities. The canal distributed water from Cache Creek at its northern extent near Esparto. Cache Creek was an important source of the expansion of agriculture in Yolo County. Soon after YCCWC was organized in 1903, YCCWC extended the existing canal approximately three miles to Winters.

Presently known as the Willow Canal (also as Winters Canal), the 28-mile long former Capay Canal is maintained by the Yolo County Flood Control and Water Conservation District (YCFCWCD) for irrigation purposes. A segment of Willow Canal was previously located within the northeastern edge of the project site, flowing south and eastward from the property north of the project site. As part of a site-specific project to facilitate the planting and maintenance of an almond orchard on private property, the YCFCWCD planned to relocate the portion of Willow Canal that transects the Hostetler Ranch property north of the project site. Construction of the replacement canal began in 2012 and was 90 percent complete when work on the Initial Study/Mitigated Negative Declaration for the Willow Canal Relocation Project commenced. The project included removal of the old Willow Canal route in the parcel located immediately to the north of the project site and the portion of the canal that traversed the northern edge of the project site. The new route of the canal, which turns east at the southeast corner of the Hostetler Ranch, does not enter the project site.

The valley land surrounding Winters was well adapted to orchards and diversified farming, including grain fields. The City originally included many wheat fields, while the hills to the north

and west were best suited for grazing. Highly productive agricultural land continues to surround the City, along with a system of artificial canals and transportation networks. The rail line between Winters and Vacaville, which paralleled Interstate 505, was not abandoned by the Southern Pacific until the 1970s. Agriculture has formed the basis for the City's economy for most of its history.

Known Historic Resources

Per the records search conducted for the proposed project, 10 prior cultural resource investigations have been conducted within a 0.25-mile radius of the project site between 1965 and 2015, two of which encompassed the entirety of the project site. Two previously recorded historic-period cultural resources are located within 0.25-mile of the project site, consisting of the Willow Canal (P-57-000437) and the Vaca Valley Railroad Route Historic District (P-57-000715). According to the Cultural and Paleontological Resources Inventory, the field survey did not identify any new or previously unrecorded cultural resources within the project site.

The Vaca Valley Railroad Route Historic District (P-57-000715), which includes a rail line located west of the project site, is located entirely outside of the project site and, therefore, is not discussed further in this analysis. The Willow Canal (P-57-000437), segments of which were located on the project site before being relocated, is discussed further below.

Willow Canal (P-57-000437)

Discontinuous segments of the earthen Willow Canal were recorded in 2004 and 2013. The segment recorded in 2004 parallels the north side of Putah Creek east of the project site; the segment recorded in 2013 was located north of and within the project site. The Willow Canal contributed to the agricultural expansion of Yolo County and was originally extended to Winters circa 1903-1905, soon after the YCCWC was organized in 1903. The 5,950-foot-long segment of the canal recorded in 2013, part of which crosses within the project site and is named the Hostetler Segment, is approximately 24 feet across the top, 15 feet wide across the bottom, and eight to ten feet deep. The tops of the canal levees have single-lane dirt roads. Features recorded in association with the Hostetler Segment are three concrete farm bridges, three concrete weirs, four valves or gates to irrigate adjacent fields, and a concrete siphon that directed water under Moody Slough. All the weirs, bridges, and siphon appear to date to the 1940s-1960s, as one structure had a legible date of October 1, 1950. Several of the weirs and bridges have deteriorated over time, and the levees appear to have been re-graded. Gunite, which has eroded in places, has been applied to eroded turns in the earthen canal. The Hostetler Segment of the Willow Canal was considered ineligible for California Register of Historic Resources (CRHR) listing and not a unique archaeological resource by the recorder, as discussed in the report for the Willow Canal Relocation Project. However, a pedestrian survey of the project site found that the segment of this linear historic-era structure within the parcel has been completely removed. Absence of the former canal segment within the project site was confirmed with current aerial photographs and planning documents.

The removal of this segment of the Willow Canal is consistent with the plan by YCFCWCD to relocate the portion of the canal that transects the Hostetler Ranch property north of the project site in order to facilitate the planting and maintenance of an almond orchard. In addition, the Hostetler Segment of the Willow Canal was considered ineligible for CRHR listing and not a unique archaeological resource by its recorder. The relocated canal segment does not encroach upon the project site.

A site record update for P-57-000437 (CA-YOL-235H) reflecting the complete elimination of the canal segment within the project site was prepared and is provided as Appendix B to the Cultural and Paleontological Resources Inventory.

Tribal Cultural Resources

Based on a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF), as described in further detail in the Method of Analysis section below, recorded Native American sacred sites or traditional cultural properties are not known to exist within the project site.

Paleontological Resources

According to the Cultural and Paleontological Resources Inventory conducted for the proposed project, paleontological resources have not been recorded within the project site.

4.5.3 REGULATORY CONTEXT

Federal, State, and local governments have developed laws and regulations designed to protect significant cultural resources that may be affected by actions that they undertake or regulate. The following section contains a summary of basic federal, State, and local regulations governing preservation of historic and archaeological resources of national, regional, State, and local significance.

Federal Regulations

The following are the federal environmental laws and policies relevant to cultural and tribal cultural resources.

National Historical Preservation Act of 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historical Preservation Act (NHPA) of 1966. Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places (NRHP). The criteria for determining NRHP eligibility are found in 36 CFR Part 60. Amendments to the Act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or uses federal funding.

National Register of Historic Places

NRHP is the nation's master inventory of known historic resources. The NRHP includes listings of resources, including: buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, State, or local level. Resources over 50 years of age may be listed on the NRHP. However, properties under 50 years of age that are of exceptional significance or are contributors to a district may also be included on the NRHP. Four criteria are used to determine if a potential resource may be

considered significant and eligible for listing on the NRHP. Potentially eligible resources include resources that:

A. Are associated with events that have made a significant contribution to the broad patterns of history; or
B. Are associated with the lives of persons significant in our past; or
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. Have yielded or may likely yield information important in prehistory or history.

A resource can be individually eligible for listing on the NRHP under any of the above four criteria, or can be listed as contributing to a group of resources that are listed on the NRHP.

A resource can be considered significant in American history, architecture, archaeology, engineering, or culture. Once a resource has been identified as significant and potentially eligible for the NRHP, the resource's historic integrity must be evaluated. Integrity is a function of seven factors: location, design, setting, materials, workmanship, feeling, and association. The factors closely relate to the resource's significance and must be intact for NRHP eligibility.

Historical buildings, structures, and objects are usually eligible under Criteria A, B, and C based on historical research and architectural or engineering characteristics. Archaeological sites are usually eligible under Criterion D, the potential to yield information important in prehistory or history. An archaeological test program may be necessary to determine whether the site has the potential to yield important data. The lead federal agency makes the determination of eligibility based on the results of the test program and seeks concurrence from the State Historic Preservation Officer (SHPO).

Effects to NRHP-eligible resources (historic properties) are adverse if the project may alter, directly or indirectly, any of the characteristics that qualify a property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

State Regulations

The following are the State environmental laws and policies relevant to cultural resources.

California Environmental Quality Act and California Register of Historic Places

State historic preservation regulations affecting this project include the statutes and guidelines contained in CEQA (Public Resources Code [PRC] Sections 21083.2 and 21084.1 and Sections 15064.5 and 15126.4 (b) of the CEQA Guidelines). CEQA requires lead agencies to consider the potential effects of a project on historic resources and unique archaeological resources. A "historic resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript that is historically or archaeologically significant (PRC Section 5020.1). Under Section 15064.5 of the CEQA Guidelines, a resource is considered "historically significant" if one or more of the following CRHR criteria have been met:

1. The resource is associated with events that have made a significant contribution to the broad patterns of California history;

2. The resource is associated with the lives of important persons from our past;
3. The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
4. The resource has yielded, or may be likely to yield, important information in prehistory or history.

In addition, the resource must retain integrity. Cultural resources determined eligible for the NRHP by a federal agency are automatically eligible for the CRHR.

CEQA requires preparation of an EIR if a proposed project would cause a "substantial adverse change" in the significance of a historical resource. A "substantial adverse change" would occur if a proposed project would result in physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 15064.5[b][1]).

In addition to historically significant resources, which can include archeological resources that meet the criteria listed above, CEQA also requires consideration of "unique archaeological resources." If a site meets the definition of a unique archaeological resource, the site must be treated in accordance with the provisions of PRC Section 21083.2. Under PRC Section 20183.2(g), an archaeological resource is considered "unique" if it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; and/or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA also includes specific guidance regarding the accidental discovery of human remains. Specifically, CEQA Guidelines Section 15064.5(e) requires that if human remains are uncovered, excavation activities must be stopped and that the county coroner be contacted. If the county coroner determines that the remains are Native American, the coroner must contact the NAHC within 24 hours. The NAHC identifies the most likely descendant, and that individual or individuals can make recommendations for treatment of the human remains under the procedures set forth in Section 15064.5 of the CEQA Guidelines.

The SHPO maintains the CRHR. Properties that are listed on the NRHP are automatically listed on the CRHR, along with State Landmarks and Points of Interest. The CRHR can also include properties designated under local ordinances or identified through local historical resource surveys.

Assembly Bill 52

Assembly Bill (AB) 52 adds tribal cultural resources to the categories of cultural resources in CEQA, which had formerly been limited to historic, archaeological, and paleontological resources. "Tribal cultural resources" are defined as either:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Under AB 52, a project that may cause a substantial adverse change in the significance of a Tribal Cultural Resource is defined as a project that may have a significant effect on the environment. Where a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact. AB 52 (PRC Section 21080.3.1) requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. If the tribe(s) requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe(s). Consultation may include discussing the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe(s).

Senate Bill 18

Senate Bill (SB) 18, signed into law in September 2004, requires local (city and county) governments to consult with California Native American tribes, when amending or adopting a general plan or specific plan, or designating land as open space, in order to aid in the protection of traditional tribal cultural places ("cultural places"). The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code Section 65300 et seq.) and specific plans (defined in Government Code Section 65450 et seq.). The proposed project includes a General Plan Amendment, and, thus, is subject to SB 18 consultation requirements.

Local Regulations

The following are the local environmental laws and policies relevant to cultural resources.

City of Winters General Plan

Section V, Recreational and Cultural Resources, of the City of Winters General Plan describes the following goals and policies that pertain to the proposed project.

Section V. Recreational and Cultural Resources

Goal V.D: To preserve and enhance Winters' historical heritage.

Policy V.D.1 Winters' historically and architecturally significant buildings and sites should be preserved and enhanced to the fullest degree possible.

Goal V.F: To protect Winters' Native American heritage.

Policy V.F.1 The City shall refer development proposals that may adversely affect archaeological sites to the Northwest Information Center of the California Archaeological Inventory for review and comment.

Policy V.F.2 The City shall undertake an archaeological sensitivity survey of the entire area within the Urban Limit Line. Such study shall classify areas as "low-sensitivity," moderate sensitivity," and high-sensitivity." Within areas classified as "high-sensitivity," an archaeological site survey will be required in conjunction with project applications. In all other areas, no field surveys will be required. However, if archaeological artifacts are discovered during grading or construction, grading or construction must stop pending an archaeological investigation and identification of appropriate mitigation measures. City implementation of this policy shall be guided by Appendix K of the *State CEQA Guidelines*.

4.5.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to cultural and tribal cultural resources. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an impact related to cultural or tribal cultural resources is considered significant if the proposed project would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5;
- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines, Section 15064.5;
- Disturb any human remains, including those interred outside of dedicated cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:
    - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k);
    - A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the Lead Agency shall consider the significance of the resource to a California Native American tribe; and/or

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Method of Analysis

The analysis presented within this chapter is based primarily on the Cultural and Paleontological Resources Inventory prepared for the proposed project by Natural Investigations. The Cultural and Paleontological Resources Inventory included a cultural resources literature search, archival research, and consultation with the NAHC. The methods of analysis are described in further detail below, along with a discussion of the tribal consultation efforts conducted by the City pursuant to AB 52 and SB 18, and the search of the paleontological records maintained by the University of California Museum of Paleontology (UCMP).

Records Search Methods

A cultural resources literature search for the project area was completed at the Northwest Information Center (NWIC), a branch of the California Historical Resources Information System (CHRIS) at Sonoma State University, Rohnert Park, on April 18, 2019. The records search was conducted to determine the extent of previous surveys within a 0.25-mile radius of the proposed project location, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within the area. The archival searches of the archaeological and historical records, and national and State databases included the following:

- National Register of Historic Places: listed properties;
- California Register of Historical Resources: listed resources;
- Historic Property Data File and Archaeological Determinations of Eligibility for Yolo County (2012);
- California Inventory of Historical Resources (1976 and updates);
- California Historical Landmarks (1996 and updates);
- California Points of Historical Interest (1992 and updates).
- 1857 Map of the Rancho Río de los Putos finally confirmed to William Wolfskill;
- 1859 General Land Office (GLO) Plat for Township 8 North, Range 1 West;
- 1871 Map of Yolo County, California, by J. S. Henning, Surveyor & Civil Engineer;
- 1900 Official Map of the County of Yolo, California, by P. N. Ashley, County Surveyor; and
- 1926 Official Map of Yolo County, California, by A. G. Proctor, County Surveyor.

In addition to the CHRIS search, Natural Investigations reviewed historical maps and aerial photographs of the project location to identify buildings, features, and landforms to aid in the identification of cultural resources within the project area. The following historic maps were reviewed:

- 1907 Winters United States Geological Survey (USGS) 15-minute quadrangle;
- 191 Merritt and Swingle USGS quadrangles (1:31,680 scale);
- 1916 Esparto, Jacobs Corner and Winters USGS quadrangles (1:31,680 scale);
- 1953 Winters USGS 7.5-minute quadrangle;
- 1959 Monticello Dam USGS 7.5-minute quadrangle; and
- Aerial photographs dating from 1968, 1993, 2005, 2009, 2010, 2012, and 2014.

Consultation with Interested Parties

Natural Investigations contacted the NAHC to request a search of the SLF to determine whether known tribal cultural resources are located within or near the project area. The SLF is populated by members of the Native American community who have knowledge about the locations of tribal resources. The reply from the NAHC, dated May 1, 2019, states that the search did identify sacred sites in the vicinity of the project site. However, a separate subsequent search of the NAHC's SLF of the specific project site came back negative, indicating that sacred sites are not located on the actual project site.[2] In requesting a search of the SLF, Natural Investigations solicited information from the Native American community regarding tribal cultural resources; however, the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable State and federal law. A discussion of formal tribal outreach efforts conducted by the City pursuant to AB 52 is provided further below.

Field Survey Methods

On April 22 and 23, 2019, Natural Investigations conducted an intensive-level pedestrian survey of the project site. All areas within the project parcel were surveyed intensively using transects spaced not greater than 15 meters apart. During the pedestrian survey, all visible ground surface within the project site was carefully examined for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Ground disturbances (e.g., animal burrows, dirt roads, etc.) were visually inspected. A digital camera was used to take photographs, a Munsell® Soil Color Chart used to record soil color, and a handheld BE-3300-GPS global positioning system (GPS) unit with sub-meter accuracy used to record locational data.

Native American Tribal Consultation

Pursuant to AB 52 (PRC Section 21080.3.1), a project notification letter was distributed by the City of Winters to the Yocha Dehe Wintun Nation on September 23, 2021. On October 15, 2021, the Yocha Dehe Wintun Nation responded that the project site is located within the tribe's aboriginal territories and that the proposed project could impact unknown cultural resources. As a result, the tribe requested the incorporation of specific protocols into project mitigation measures. Additionally, in compliance with SB 18, consultation letters have been sent out to the applicable Native American tribes identified by the NAHC as having traditional lands or cultural places located within the Winter's General Plan boundaries. To date, responses to the SB 18 letters have not been received.

Paleontological Resource Inventory Methods

A search of the paleontological records maintained by the UCMP was conducted on April 25, 2019. The UCMP database indicates that 133 fossil localities have been recorded within Yolo County. However, none of the formations that have yielded significant fossils in Yolo County are present within the project site and Natural Investigations determined that the on-site soils have low potential to contain unique or significant paleontological resources.

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[2] Native American Heritage Commission. *Re: Native American Consultation, Pursuant to Senate Bill 18 (SB18), Government Codes §65352.3 and §65352.4, as well as Assembly Bill 52 (AB52), Public Resources Codes §21080.1, §21080.3.1 and §21080.3.2, Farmstead Subdivision Project, Yolo County*. November 1, 2021.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above.

4.5-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5. Based on the analysis below, the impact is *less than significant*.

As discussed previously, according to the Cultural and Paleontological Resources Inventory, two previously recorded cultural resources were identified within 0.25-miles of the project site: the Willow Canal (P-57-000437) and the Vaca Valley Railroad Route Historic District (P-57-000715).

Although a segment of the Willow Canal previously overlapped with the project site, during the pedestrian survey, the Willow Canal was found to have been completely removed from the project site. Similarly, the Vaca Valley Railroad Route Historic District is not located on the project site. Thus, development of the proposed project on the project site would not have the potential to affect either resource. Archaeological or other built environment resources have not been recorded within the project site and were not identified during the field survey.

Based on the above, the proposed project does not have the potential to cause a significant impact on any resource that currently qualifies as a historical resource under CEQA, or that has been recommended eligible for listing in the NRHP or CRHR. Therefore, the proposed project would not result in a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.5-2 Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The project site has been heavily modified due to past agricultural use and features associated with irrigation and water delivery; therefore, the potential for buried archeological deposits to occur beneath the surface of the project site is low. During the field survey, evidence of unique archaeological resources and/or human remains was not identified. Nevertheless, the potential for human remains to be discovered during construction cannot be eliminated due to the known prehistoric occupation of the project area by Native American tribes.

In an effort to minimize impacts to archeological resources and human remains, General Plan Policy V.F.2 requires work to stop and consultation to take place if any prehistoric resources are discovered during construction activities. As such, consistent with General Plan Policy V.F.2, the applicant would be required to halt construction and initiate consultation with the appropriate agency, should any unique archeological resources and/or human remains be identified.

Although archeological resources and human remains have not been identified in the immediate project vicinity, while unlikely, the possibility exists that previously unknown resources could be discovered within the project site or off-site improvement areas during construction activities. Therefore, construction activities associated with buildout of the proposed project could uncover undocumented archaeological resources, including human remains. Compliance with General Plan Policy V.F.2 would generally help ensure that work would stop if archeological resources or human remains are identified during construction, but does not specify the appropriate course of action if such resources are discovered. As a result, without mitigation, the proposed project could cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.5-2 *The following requirements shall be included via notation on all project grading plans prior to the issuance of grading permits, to the satisfaction of the City of Winters Community Development Department.*

In the event subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, shall be retained by the applicant to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- *If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and agency notifications are not required.*
- *If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City and applicable landowner. The project applicant shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Work shall not resume within the no-work radius until the applicant, through*

consultation as appropriate and concurrence with the City, determines that the site either: 1) is not a historical resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to the City's satisfaction.

- *If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Yolo County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 shall be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner shall notify the NAHC, which then shall designate a Native American Most Likely Descendant (MLD) for the proposed project (Section 5097.98 of the PRC). The designated MLD shall have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC shall mediate (Section 5097.94 of the PRC). If an agreement is not reached, the landowner shall rebury the remains where they shall not be further disturbed (Section 5097.98 of the PRC). The burial shall also include either recording the site with the NAHC or the appropriate information center, using an open space or conservation zoning designation or easement, or recording a reinternment document with Yolo County (AB 2641). Work shall not resume within the no-work radius until the City, through consultation as appropriate, determines that the treatment measures have been completed to their satisfaction.*

4.5-3 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or a resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As part of AB 52 requirements, the City sent a project notification letter to the Yocha Dehe Wintun Nation on September 23, 2021. In a response letter sent to the City of Winters on October 15, 2021, the Yocha Dehe Wintun Nation said that the project site is located within the tribe's aboriginal territories and that the proposed project could impact unknown tribal cultural resources. Therefore, the Yocha Dehe Wintun Nation requested a visit to the project site, as well as the incorporation of specific mitigation measures. Such measures have been incorporated into Mitigation Measure 4.5-3, below. The City supplied the Yocha Dehe Wintun Nation with a copy of the mitigation measures to be included in the EIR analysis, and further correspondence was not received.

As noted previously, a records search of the NAHC SLF did not indicate the presence of tribal cultural resources within the actual project site. Considering the results of the literature search and the prehistory and history of the area, the project site was determined by Natural Investigations to have a low probability to contain tribal cultural resources. Although the Yocha Dehe Wintun Nation confirmed that known tribal cultural resources have not been recorded on-site, previously unknown subsurface tribal cultural resources could potentially be identified on the project site during project construction activities. Thus, the possibility exists that buried tribal cultural resources associated with local tribes could occur in the project site. Therefore, ground-disturbing activities associated with the proposed project could cause a substantial change in the significance of a tribal cultural resource as defined in PRC Section 21074, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.5-3 *Prior to ground disturbance activities, the project proponent shall prepare a Tribal Cultural Resources Monitoring Plan for City approval that includes the following components:*

- *Awareness Training -- The scope, format, and timing of delivery of a contractor awareness training program to inform equipment operators and their supervisors of the procedures required by the Monitoring Plan, which includes, at a minimum, annual training for all personnel involved in project implementation. The program shall include relevant information regarding sensitive tribal cultural laws and regulations. The program shall describe appropriate avoidance and minimization measure (as described in the executed Monitoring Plan) for resources that have the potential to be located on the project site and shall outline specific actions and contacts should any potential archeological resources or artifacts be encountered. The program shall also underscore the requirement for confidentiality and culturally-appropriate treatment of any finds of significance to Native American peoples and for behavior consistent with Native American Tribal values. A copy of the contractor awareness training program materials and written*

verification of completion of the training program shall be submitted to the City of Winters Community Development Department.

- *Compliance with Applicable Laws – The Monitoring Plan shall describe applicable laws and regulations relevant to potential cultural resource finds, including specific procedures to ensure compliance during implementation.*
- *Reporting By Phase –The applicant shall file a written report to the City within 30 days of completion of monitoring for each monitoring phase. The report shall document compliance with the terms of the Monitoring Agreement and shall report on the nature and disposition of any cultural resource discoveries. Applicable requirements for confidentiality shall be observed in these reports.*
- *Treatment and Disposition of Cultural Items and Remains – Detailed unanticipated discovery procedures for cultural resources, unique archaeological resources, tribal cultural resources, or human remains that includes consultation with the City to ensure that any discoveries are treated in accordance with applicable state law before work can resume at the discovery location.*
- *Other Procedures and Requirements – Timing and procedures for other relevant actions necessary to implement the Monitoring Plan.*

4.5-4 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As noted above, paleontological resources have been discovered within Yolo County, but have not been discovered at the project site. In addition, known rock formations that have yielded significant fossils in Yolo County are not present within the project site. Geologic mapping indicates the project area is underlain by Older alluvial deposits. The paleontological potential for these alluvial deposits to produce a unique or significant paleontological resource is considered low. Additionally, the project site has been previously disturbed through agricultural activities; as a result, the potential for paleontological resources or unique geologic features to be present on the project site is low.

Based on the above, known fossils do not exist at the project site, a low potential exists for fossils to be found in the underlying earth, and known unique geologic features are not present on the project site. Nevertheless, although unlikely, the potential exists for previously unknown paleontological resources to be discovered during ground-disturbing activities associated with the proposed project. As a result, the proposed project could directly or indirectly destroy a unique paleontological resource or unique geologic feature, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.5-4 Prior to the issuance of grading permits, the following language shall be included via notation on the grading plans, subject to review and approval by the City of Winters Community Development Department:

"Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The City of Winters Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred."

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Generally, while some cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a subsurface archeological find at one project site would not necessarily be made worse by impacts to a cultural resource at another site due to development of another project. Rather, the resources and the effects upon them are generally independent. A possible exception to the aforementioned general conditions would be where a cultural resource represents the last known example of its kind or is part of larger cultural resources such as a single building along an intact historic Main Street. For such a resource, cumulative impacts, and the contribution of a project to them, may be considered cumulatively significant. The cumulative context for this analysis generally assumes buildout of the City of Winters General Plan.

4.5-5 Cause a cumulative loss of cultural resources. Based on the analysis below, the cumulative impact is *less than significant*.

As described throughout this chapter, known cultural or tribal cultural resources do not exist within the project site. Two cultural resources are located within 0.25-mile of the project site; however, neither are considered eligible to be considered as historic, cultural, or tribal cultural resources under CEQA, and neither resource would be affected by implementation of the proposed project. Furthermore, implementation of the project-specific mitigation measures set forth in this chapter (Mitigation Measures 4.5-2, 4.5-3, and 4.5-4) would ensure that potential impacts related to disturbance of previously unknown cultural or tribal cultural resources within the site are reduced to less-than-significant levels.

Similar to the proposed project, future development projects within the City would be required to implement project-specific mitigation to ensure any potential impacts to identified cultural resources are reduced to a less-than-significant levels.

Given that cultural resource impacts are generally site-specific and each future project within the City would be required to adhere to City policies, any potential impacts associated with cumulative buildout of the City's planning area would not combine to result in a significant cumulative impact.

Based on the above information, implementation of the aforementioned mitigation measures would reduce all project-specific impacts to less-than-significant levels, and impacts related to the proposed project's contribution to a cumulative loss of cultural resources would be ***less than significant.***

Mitigation Measure(s)

None required.

4.6 Land Use and Planning / Population and Housing

4.6 LAND USE AND PLANNING/ POPULATION AND HOUSING

4.6.1 INTRODUCTION

The purpose of the Land Use and Planning/Population and Housing chapter of the EIR is to examine the proposed project's compatibility with existing and planned land uses in the area and identify any incompatibilities with applicable land use plans, policies and regulations adopted by the City for the purpose of avoiding environmental effects, including the City of Winters General Plan[1] and associated EIR.[2] In addition, the chapter assesses the compatibility of the proposed project with the surrounding land uses, both existing and proposed. Furthermore, the chapter includes discussion of the potential for the project to induce substantial population growth in the project area, either directly or indirectly. The reader is referred to the various environmental resource evaluations presented in the other technical chapters of this EIR for a discussion of potential physical/environmental effects that may result from the proposed land use changes.

It should be noted that based on the analysis included in the Initial Study prepared for the proposed project (Appendix A), because the project site is currently vacant, no impact related to displacing a substantial number of existing people or housing was identified. Additionally, the proposed project would be consistent with the type and intensity of existing residential uses to the west and south, and would provide roadway connections to surrounding properties, and, therefore, impacts related to dividing an established community were determined to be less than significant. Accordingly, further analysis of the aforementioned topics are not included in this EIR.

4.6.2 EXISTING ENVIRONMENTAL SETTING

This section describes the existing land uses on the project site and within the surrounding area at the time the NOP was published, as well as the existing plans and policies that guide the development of the project site. In addition, the Existing Environmental Setting section describes current population and housing trends in the project region.

Project Site Characteristics and Surrounding Land Uses

The approximately 61.9-acre project site is located to the northwest of the State Route (SR) 128 (also known as East Grant Avenue)/Timber Crest Road intersection in the City of Winters, California.

The project site's topography is generally flat, with a slight slope and an elevation of approximately 125 feet above mean sea level. The property has been used for farming for many decades, with the ground periodically tilled for row crops, hay, or other dry farming purposes. The property currently serves as an undeveloped agricultural field used for annual row crops. In addition, the perimeter of the property contains numerous trees and shrubs.

Existing surrounding land uses include unincorporated agricultural land currently used for orchards to the north; undeveloped grassland zoned for Highway Service Commercial (C-H) uses and two single-family residences with associated outbuildings immediately to the east, across

[1] City of Winters. *The City of Winters General Plan Policy Document*. Adopted May 19, 1992.
[2] City of Winters. *City of Winters General Plan Final Environmental Impact Report*. Certified May 1992.

from Timber Crest Road; a fueling station and fast-food restaurant located further to the east; undeveloped grassland zoned for Neighborhood Commercial (C-1) uses and a single-family residence with associated outbuildings immediately to the south, across from SR 128; a single-family residential neighborhood located further to the south; and a fueling station, grocery store, dental office, single-family residential neighborhood, and undeveloped land to the west. It should be noted that the latter undeveloped parcel to the west of the project site is known as the Walnut Lane 10 parcel, which has been approved by the City for a 54-lot subdivision development.

Land Use and Zoning Designations

The project site is located within the eastern portion of the City of Winters. The Winters General Plan designates the site as Open Space (OS) in the site's northeast portion, as Low Density Residential (LR) in the northwest portion, and as Neighborhood Commercial (NC) in the site's southern portion. Corresponding with the aforementioned land use designations, the site is zoned as Open Space (O-S), Single Family Residential 7,000-Square-Foot Average Minimum (R-1), and C-1, respectively.

Table 4.6-1 below provides a summary of the current General Plan land use and zoning designations of the properties adjacent to the project site.

Table 4.6-1
Summary of Adjacent Land Use and Zoning Designations

Relationship to Project Site	Present Land Use	General Plan Land Use Designation	Zoning Designation
North	Unincorporated Vacant Farmland	Agriculture (AG) *(Yolo County)*	Agricultural Intensive (A-N) *(Yolo County)*
South	Undeveloped	Neighborhood Commercial (NC) *(City of Winters)*	Neighborhood Commercial (C-1) *(City of Winters)*
	Single-Family Residences	Medium Density Residential (MR) *(City of Winters)*	Single-Family Residential (R-2) *(City of Winters)*
East	Undeveloped Land	Highway Service Commercial (HSC) *(City of Winters)*	Highway Service Commercial (C-H) *(City of Winters)*
	Commercial Uses	Highway Service Commercial (HSC) *(City of Winters)*	Highway Service Commercial (C-H) *(City of Winters)*
	Industrial Uses	Public/Quasi-Public (PQP) *(City of Winters)*	Public/Quasi-Public (PQP) *(City of Winters)*
West	Agricultural Uses	Low Density Residential (LR) *(City of Winters)*	Single-Family Residential (R-1) *(City of Winters)*
	Single-Family Residences	Medium Density Residential (MR) *(City of Winters)*	Single-Family Residential (R-2) *(City of Winters)*
	Commercial Uses	Central Business District (CBD) *(City of Winters)*	Central Business District (C-2) *(City of Winters)*

Land Use Designation Definitions

The following sections provide definitions of the land use designations noted above, as summarized from the City's General Plan.

City of Winters Land Use Designations

The City defines the LR, MR, HR, NC, CBD, HSC, PQP, and OS designations as follows:

Low Density Residential (LR)

This designation provides for single-family detached homes, secondary residential units, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 1.1 to 7.3 units per gross acre. It should be noted that the density ranges for LR and MR described in the City's General Plan are no longer correct. In 2013, in order to get the City's 2013-2021 Housing Element (Resolution 2013-13) certified by the California Department of Housing and Community Development (HCD), the City Council amended the LR and MR density ranges.[3]

Medium Density Residential (MR)

This designation provides for single-family detached and attached homes, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 5.5 to 8.8 units per gross acre.[4]

Medium High Density Residential (MHR)

This designation provides for single-family detached and attached homes and multi-family residential units, group quarters, quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 6.1 to 10.0 units per gross acre.

High Density Residential (HR)

This designation provides for single-family attached homes and multi-family residential units, group quarters, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 10.1 to 20.0 units per gross acre. New residential development at densities less than 10.1 dwelling units per gross acre is deemed compatible, but shall be subject to discretionary review and approval.

Neighborhood Commercial (NC)

This designation provides for neighborhood and locally-oriented retail and service uses, offices, multi-family residential units above the ground floor, public and quasi-public uses, and similar and compatible uses. All residential uses shall be subject to discretionary review and approval. The floor area ratio (FAR) shall not exceed 0.40 for commercial uses and residential density shall be in the range of 6.1 to 10.0 units per gross acre.

Central Business District (CBD)

This designation provides for restaurants, retail, service, professional and administrative offices, hotels, multi-family residential units, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 10.1 to 20.0 units per acre; the FAR for offices and commercial uses shall not exceed 2.0 and the FAR for all other uses shall not exceed 0.60. Residential uses shall be subject to discretionary review and approval.

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3 Denham, Timothy, Dave Dowswell, and Mark Skreden. Personal Communication with Rod Stinson, Vice President, Raney Planning & Management, Inc. October 28, 2021.

4 *Ibid.*

Highway Service Commercial (HSC)
This designation provides for restaurants, service stations, hotels and motels, and retail and amusement uses, which are oriented principally to highway and through traffic, public and quasi-public uses, and similar and compatible uses. The FAR shall not exceed 0.40.

Public/Quasi-Public (PQP)
This designation provides for government-owned facilities, public and private schools, and quasi-public uses such as hospitals, churches, and similar and compatible uses. The FAR shall not exceed 0.50.

Open Space (OS)
This designation provides for agricultural uses, recreational uses, riparian vegetation and wildlife habitat protection, water retention, public and quasi-public uses, and similar and compatible uses consistent with the open space purposes of this designation. The FAR shall not exceed 0.05. The precise location of the boundary of the Open Space designation along Putah and Dry Creeks shall be determined by the City in conjunction with individual project proposals based on creek setback requirements and site-specific conditions.

Yolo County Land Use Designations
The County defines the AG designation as follows:

Agriculture (AG)
This designation includes the full range of cultivated agriculture, such as row crops, orchards, vineyards, dryland farming, livestock grazing, forest products, horticulture, floriculture, apiaries, confined animal facilities and equestrian facilities. The designation also includes agricultural industrial uses (e.g. agricultural research, processing and storage; supply; service; crop dusting; agricultural chemical and equipment sales; surface mining; etc.) as well as agricultural commercial uses (e.g. roadside stands, "Yolo Stores," wineries, farm-based tourism (e.g. u-pick, dude ranches, lodging), horseshows, rodeos, crop-based seasonal events, ancillary restaurants and/or stores) serving rural areas. Agriculture also includes farmworker housing, surface mining, and incidental habitat.

Zoning Designation Definitions
The following sections provide definitions of the zoning designations noted above, as summarized from the City of Winters Zoning Code (Title 17 of the City's Municipal Code) and the Yolo County Zoning Code.

City of Winters Zoning Code
The City defines the R-1, R-2, R-3, R-4, C-1, C-2, C-H, PQP, and O-S districts as follows:[5]

Single Family, 7,000 square foot average minimum (R-1)
The purpose of the R-1 zone is to stabilize and protect the residential character of the zone and to promote and encourage a suitable environment for family life. It shall be the goal of the city to achieve a range of housing types to meet the housing needs of the community.

[5] City of Winters Municipal Code. *Chapter 17.44, Zoning District Descriptions*. Available at: https://www.codepublishing.com/CA/Winters/#!/Winters17/Winters1744.html#17.44.030. Accessed October 2023.

Single Family, 6,000 square foot average minimum (R-2)

The purpose of the R-2 zone is to stabilize and protect the residential characteristics of existing and planned neighborhoods developed with smaller lots, and to promote and encourage a suitable environment for residential use. It shall be the goal of the city to achieve a range of housing types to meet the housing needs of the community.

Multi-family Residential (R-3)

The purpose of the multi-family residential R-3 zone is to stabilize and protect the residential characteristics of the zone where compatible mixes of single-family and multi-family dwellings is likely to occur and to promote and encourage a suitable environment for residential use. The R-3 zone is intended for residences at varying degrees of density.

High Density Multi-family Residential (R-4)

The purpose of the R-4 zone is to stabilize, protect and provide for high density multi-family residential units, and similar and compatible uses.

Neighborhood Commercial (C-1)

The purpose of the C-1 zone is to provide a center for convenient shopping and services near residential neighborhoods.

Central Business District (C-2)

The purpose of the C-2 zone is to stabilize, improve and protect the central business district of the city, including the downtown area, and related major area-wide business centers as designated in the general plan. A wide range of commercial activities and other land uses are possible in the C-2 zone.

Highway Service Commercial (C-H)

The purpose of the C-H zone is to provide for commercial services and transient residential uses which are appropriate to highway locations and dependent upon highway travel.

Public/Quasi-Public (PQP)

The purpose of the PQP zone is to provide for a broad range of public, quasi-public, and nonprofit institutional uses, including hospitals and government offices.

Open Space (O-S)

The purpose of the public open space (O-S) zone is to preserve appropriate lands in open space uses for such purposes as habitat protection or enhancement, drainage/flood control, and mitigation zones between land uses as defined and required in the general plan.

Yolo County Zoning Code

Yolo County defines the A-N district as follows:

Agricultural Intensive (A-N)

The A-N Zone is applied to preserve lands best suited for intensive agricultural uses typically dependent on higher quality soils, water availability, and relatively flat topography. The purpose of the zone is to promote those uses, while preventing the encroachment of nonagricultural uses. Uses in the A-N Zone are primarily limited to intensive agricultural production and other activities compatible with agricultural uses. This includes allowing agricultural-related support uses,

excluding incompatible uses, and protecting the viability of the family farm. Minimum lot size for newly created parcels in the A-N Zone is 40 acres for irrigated parcels primarily planted in permanent crops, such as orchards or vineyards; 80 acres for irrigated parcels that are cultivated; 160 acres for parcels that are generally uncultivated and/or not irrigated.

Population and Housing

Population growth assumptions, average household sizes, and vacancy rates for the City of Winters are discussed below.

Historical and Current Population

Pursuant to the City's General Plan, the City of Winters Planning Area anticipated having a buildout capacity of 12,452 persons by 2010. As shown in Table 4.6-2, the population within the city limits has increased steadily, from 4,639 persons in 1990 to 7,115 persons in 2020.

Table 4.6-2
City of Winters Population and Household Growth

Year	Population	Households	Persons Per Households
1990	4,639	1,506	3.08
2000	6,125	1,907	3.21
2010	6,624	2,186	3.03
2020	7,115	2,439*	2.97*

Sources:
City of Winters, Housing Needs Assessment 2013-2021, October 2013.
U.S. Census Bureau, QuickFacts, City of Winters, CA, 2020.

****Average between 2018-2022***

The observed population change within the City, presented in Table 4.6-2, remains well below the buildout estimates presented in the City's General Plan EIR.

Projected Housing Growth

While Table 4.6-2 demonstrates that growth within the City has not reached the maximum growth buildout estimates, development within the City is anticipated to continue to grow as new development occurs within the undeveloped areas of the City. The Sacramento Area Council of Governments (SACOG) has anticipated growth within the six-county Sacramento region through the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). According to the 2020 MTP/SCS, the City is anticipated to grow to a total of 3,200 housing units by 2035 and 3,360 housing units by 2040.[6]

Average Household Size

The average size of households is a function of the number of residents living in households within a given area divided by the number of occupied housing units within the given area. As shown below in Table 4.6-3, the average household size within the City is approximately 2.97 persons per household, which is greater than the county and statewide averages.

[6] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy – Appendix C: 2020 MTP/SCS Land Use Forecast*. November 18, 2019.

Table 4.6-3
Average Household Size (Persons Per Household)

Area	2019
California	2.89
Yolo County	2.74
City of Winters	2.97

Source: U.S. Census Bureau, QuickFacts, City of Winters, CA, Persons per household, 2018-2022.

Regional Housing Needs Plan

The Regional Housing Needs Allocation (RHNA) is a minimum projection of additional housing units needed to accommodate projected household growth of all income levels by the end of the housing element's statutory planning period. Based on SACOG's adopted RHNA, each city and county must update the housing element of their General Plan to demonstrate how the jurisdiction will meet the expected growth in housing need over the planning period.

According to the U.S. Department of Housing and Urban Development (HUD), housing is classified as "affordable" if households do not pay more than 30 percent of gross income for housing costs, including utilities.[7] The SACOG Board of Directors adopted the 2021-2029 Regional Housing Needs Plan (RHNP) on March 19, 2020, which officially assigns the allocations to cities and counties in the six-county Sacramento region. SACOG's RHNP covers the planning period from 2021 through 2029, and defines the lower income unit categories as follows:

- Very Low-Income Unit: Affordable to a household whose combined gross household income is at or lower than 50 percent of the area median income.
- Low-Income Unit: Affordable to a household whose combined gross household income is at or between 50 and 80 percent of the area median income.

On November 21, 2019, the SACOG Board of Directors approved RHNA Methodology Option C for the RHNA Methodology Cycle 6 (2021 through 2029 planning period), which provides the number of total housing units that each jurisdiction in the SACOG region must zone for during the eight-year period. Based on the approved RHNA Methodology Option C, the SACOG region requires a minimum of 38,999 new very low-income units and 23,503 new low-income units for the upcoming planning period. SACOG estimates that 552 new housing units, including 125 very low-income units, 75 low-income units, 104 moderate-income units, and 248 above moderate-income units, would be required in the City of Winters in the 2021-2029 planning period.[8] The City of Winters City Council adopted a 6th Cycle 2021-2029 Housing Element on September 7, 2021 in compliance with the RHNA.[9]

4.6.3 REGULATORY CONTEXT

Federal laws or regulations pertaining to land use and planning/population and housing are not applicable for this analysis. However, the existing State and local laws and regulations are listed below, as applicable.

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7 U.S. Department of Housing and Urban Development. *Glossary of Terms to Affordable Housing*. Available at: https://archives.hud.gov/local/nv/goodstories/2006-04-06glos.cfm. Accessed June 2024.

8 Sacramento Area Council of Governments. *SACOG Regional Housing Needs Plan Cycle 6 (2021-2029)*. Approved March 2020.

9 City of Winters. *6th Cycle (2021-2019) Housing Element*. Adopted September 7, 2021.

State Regulations

The following are applicable State regulations related to land use and planning/population and housing.

Title 14 California Code of Regulations Section 15131

Title 14, California Code of Regulations (CCR) Section 15131 provides that economic or social information may be included in an EIR, but those economic or social effects shall not be considered significant effects on the environment. In an EIR, the lead agency is responsible for researching economic or social changes resulting from a project, which may eventually lead to physical changes in the environment. Such economic or social changes can be used to determine the significance of physical changes on the environment.

Regional Housing Needs Plan

California General Plan law requires each city and county to have land zoned to accommodate a fair share of the regional housing need. The share is known as RHNA and is based on a RHNP developed by councils of government. The state-mandated RHNA process (Government Code Sections 65580 et seq.) requires SACOG to develop a methodology that determines how to divide and distribute an overall allocation that the region receives from the State.

SB 330

California Senate Bill (SB) 330, "The Housing Crisis Act of 2019," was signed into law by Governor Newsom on October 9, 2019 and became effective January 1, 2020. The bill establishes a statewide housing emergency to be in effect until January 1, 2025. During the housing emergency period, cities and localities in urban areas, including the City of Winters, are generally prohibited from rezoning actions or imposing new development standards that would reduce the zoned capacity for housing, or adopting new design standards that are not objective. In such jurisdictions, the demolition of existing housing units is only permitted if replacement units are provided. The demolition of existing low-income units is only permitted if certain conditions related to affordability and tenant protections are met.

Local Regulations

The following are the local regulations and standards relevant to the CEQA review process with respect to land use and planning/population and housing. Specific goals and policies from the City's General Plan are listed in Table 4.6-8 at the end of this chapter.

City of Winters Housing Element

As discussed above, SACOG established the 2021-2029 RHNP to assign each city and unincorporated county in the region its fair share of the regional housing need based on a number of factors established by State law (Government Code Section 65584) and regional housing burdens and needs. Consistent with the RHNA, the City of Winters City Council adopted the 6th Cycle 2021-2029 Housing Element to identify the community's housing needs; to state the community's goals and objectives with regard to housing production, rehabilitation, and conservation to meet those needs; and to define the policies and programs that the community will implement to achieve the stated goals and objectives.

Sacramento Area Council of Governments

SACOG is responsible for the preparation of, and updates to, the MTP/SCS for the region and the corresponding Metropolitan Transportation Improvement Program (MTIP). The MTIP identifies short-term projects (seven-year horizon) in more detail.

Metropolitan Transportation Plan/Sustainable Communities Strategy

The 2020 MTP/SCS was adopted by the SACOG board on November 18, 2019.[10] The MTP/SCS is a long-range plan for transportation improvements in the region and provides a 20-year transportation vision and corresponding list of projects. The plan is based on projections for growth in population, housing, and jobs. SACOG determines the regional growth projections by evaluating baseline data (existing housing units and employees, jobs/housing ratio, and percent of regional growth share for housing units and employees), historic reference data (based upon five- and ten-year residential building permit averages and historic county-level employment statistics), capacity data (General Plan data for each jurisdiction), and current MTIP data about assumptions used in the most recent MTP/SCS. SACOG staff then meets with each jurisdiction to discuss and incorporate more subjective considerations about planned growth for each area. Finally, SACOG makes a regional growth forecast for new homes and new jobs, based upon an economic analysis provided by a recognized expert in order to estimate regional growth potential based on market analysis and related economic data, which is incorporated into the MTP/SCS.

4.6.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to land use and planning/ population and housing. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact would occur if the proposed project would result in any of the following:

- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect; or
- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).

Issues Not Discussed Further

The Initial Study prepared for the proposed project (see Appendix A) determined that development of the proposed project would result in no impact or a less-than-significant impact related to the following impacts:

- Physically divide an established community; and
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

For the reasons cited in the Initial Study (Section XI, Land Use and Planning, and Section XIV, Population and Housing), the potential impacts associated with the above are not analyzed further in this EIR.

[10] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy*. November 18, 2019.

Method of Analysis

The following section describes the method of analysis used to evaluate potential impacts of the proposed project related to land use and planning/population and housing.

Land Use and Planning

This chapter analyzes the compliance of the proposed project with adopted plans and policies. Environmental impacts resulting from the proposed project are discussed in the respective environmental categories. This discussion complies with Section 15125(d) of the CEQA Guidelines, which requires that EIRs discuss inconsistencies with adopted local plans as part of the environmental setting. The ultimate determination of consistency rests with the City Council. The proposed project is examined for consistency with the City's General Plan based on the relevant policies contained therein. The project's consistency with the City's Municipal Code is also discussed.

Population and Housing

The level of significance of the impacts related to population and housing is determined by evaluating whether the proposed project, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure), would induce substantial unplanned population growth in the project area.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above.

4.6-1 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Based on the analysis below, the impact is *less than significant*.

The General Plan Guidelines published by the State Office of Planning and Research defines consistency as, "An action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment." Therefore, the standard for analysis used in this EIR is based on general agreement with the policy language and furtherance of the policy intent (as determined by a review of the policy context). The determination that the project is consistent or inconsistent with the City of Winters General Plan policies or other City plans and policies is ultimately the decision of the City Council. Furthermore, although CEQA analysis may identify some areas of general consistency with City policies, the City has the ability to impose additional requirements or conditions of approval on a project, at the time of its approval, to bring a project into more complete conformance with existing policies. A discussion of the project's general agreement with policy language and furtherance of policy intent is discussed in further detail below.

The General Plan and Zoning Code carry out the policies of the City of Winters General Plan by classifying and regulating the uses of land and structures within the City, consistent with the General Plan. As noted previously, the project site is located within

the eastern portion of the City of Winters and is currently assigned the land use designations of OS, LR, and NC. The site is zoned O-S, R-1, and C-1.

The proposed project includes a General Plan Amendment (GPA) to modify the project site's existing land use designations, based on the Tentative Subdivision Map that has been submitted to the City (see Figure 4.6-1).

The GPA would include a new 4.4-gross acre HR land use designation in the southeast portion of the project site, a new 5.7-gross acre MHR land use designation in the southwest corner of the project site, and a new 16.1-gross acre MR land use designation in the western portion of the project site. The property's OS land use designation area would be reconfigured and reduced, based on detention basin sizing and channel alignment determined by the City's Storm Drainage Master Plan Northeast Area.[11] The GPA would also modify and reduce the site's NC land use designation and LR designation. Table 4.6-4 shows the acreages for the property's existing and proposed General Plan land use designations.

Table 4.6-4
Farmstead Subdivision General Plan Amendment

Land Use Designation	Existing Acreage	Proposed Acreage
Low Density Residential	33.7	23.3
Medium Density Residential	0	16.1
Medium High Density Residential	0	5.7
High Density Residential	0	4.4
Neighborhood Commercial	14.7	3.3
Open Space	13.5	9.1
Total	**61.9**	**61.9**

The proposed Rezone would reconfigure the project site's zoning designations to those shown in Figure 4.6-2. The southwest corner of the project site would feature an approximately 5.7-acre Multi-Family Residential (R-3) zone. A new 4.4-acre R-4 zone would be established in the southwestern portion of the site. The property's C-1 and O-S zoning districts would be reconfigured and reduced to 3.3 gross acres and 9.1 gross acres, respectively. A new 16.1-acre R-2 zone would be established in the western portion of the site with a Planned Development (PD) overlay. The PD overlay would allow for a degree of flexibility from the R-2 development standards, as discussed in Chapter 17.48 of the City's Municipal Code. The PD would allow for an average minimum lot area of 5,300 square feet (sf), side yard setback distances of five feet for each side yard, and maximum site coverage of 60 percent for single-story residences and 55 percent for multi-story residences. The existing R-1 zone would be reconfigured and reduced from 33.7 gross acres to 23.3 gross acres. Table 4.6-5 shows the acreages for the property's existing and proposed zoning districts.

[11] City of Winters. *Storm Drainage Master Plan Northeast Area, City of Winters, California*. March 2020.

Figure 4.6-1
Farmstead Subdivision Proposed General Plan Amendment

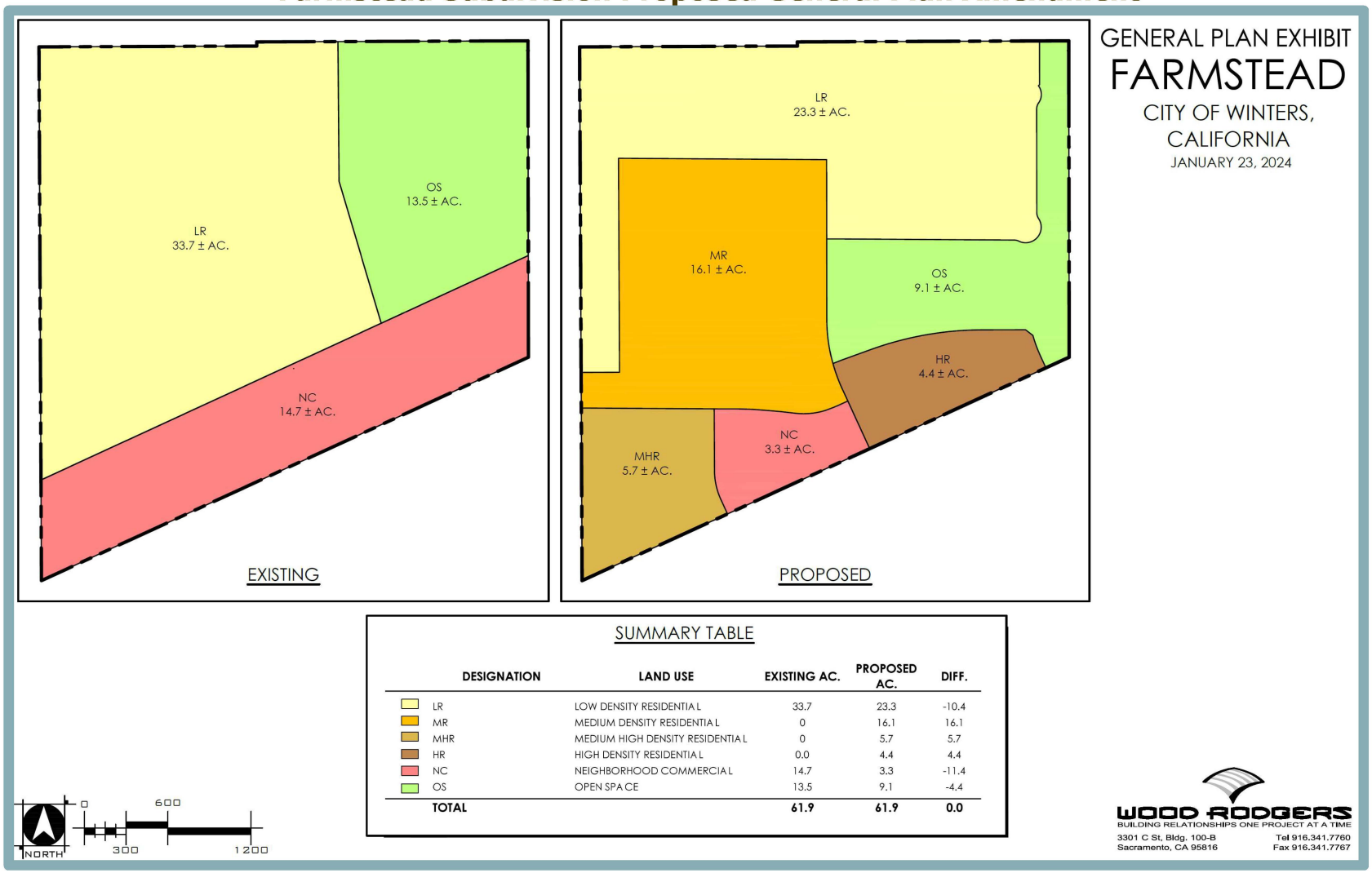


Figure 4.6-2
Farmstead Subdivision Proposed Rezone

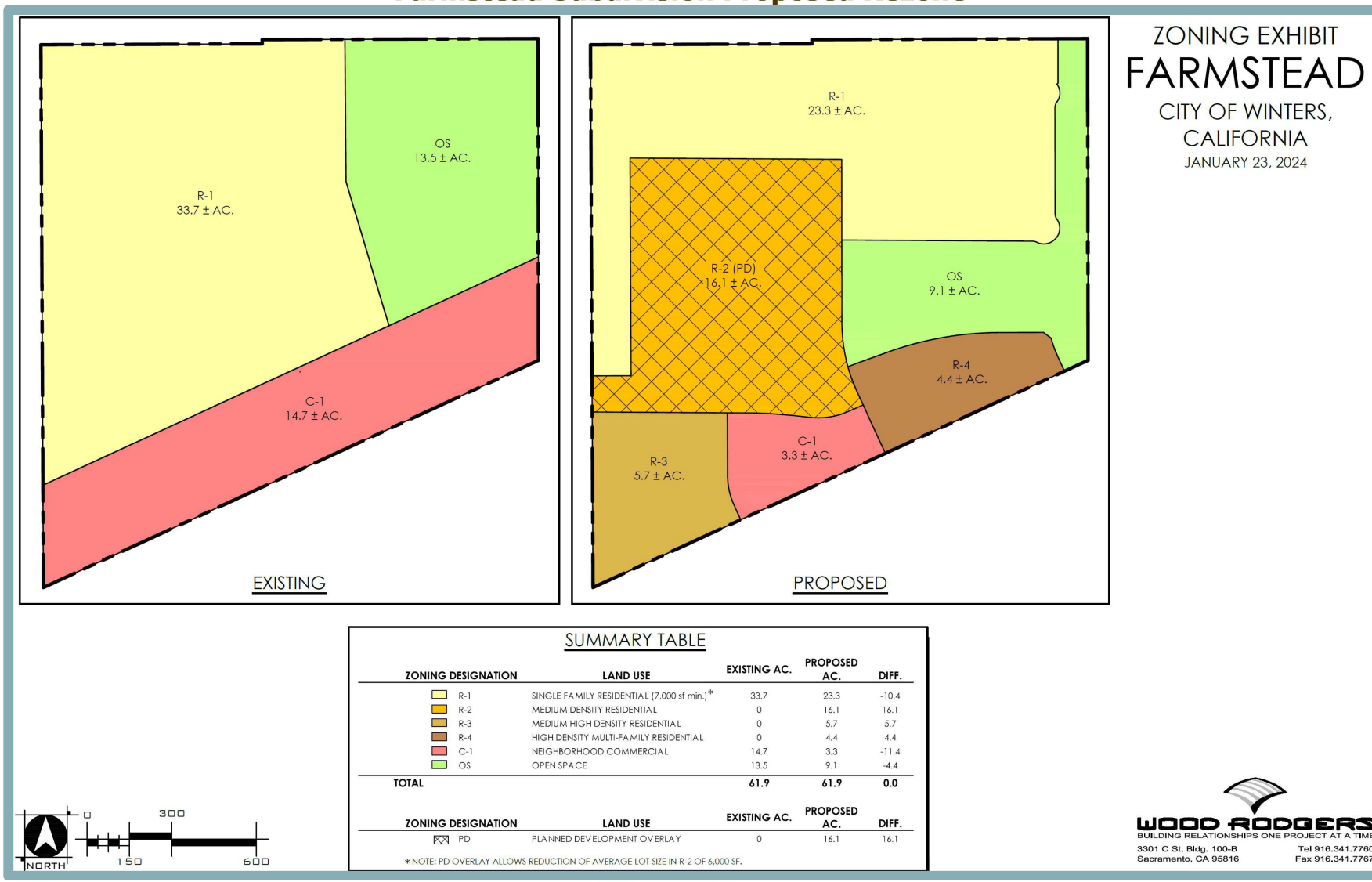


Table 4.6-5
Farmstead Subdivision Rezone

Zoning District	Existing Acreage	Proposed Acreage
Single Family Residential (7,000 sf min) (R-1)	33.7	23.3
Medium Density Residential (R-2)	0	16.1
Medium High Density Residential (R-3)	0	5.7
High Density Multi-Family Residential (R-4)	0	4.4
Neighborhood Commercial (C-1)	14.7	3.3
Open Space (O-S)	13.5	9.1
Total	**61.9**	**61.9**

The proposed project was included in the City of Winters 6th Cycle (2021-2029) Housing Element and was originally proposed to include 208 single-family residential units and 56 multi-family units, resulting in 18 additional units than what was anticipated in the General Plan.[12] The currently proposed project would include a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex. As discussed further under Impact 4.6-2, the proposed project would result in an additional 83 residential units than previously anticipated by the General Plan.

While the proposed project would result in additional units than previously anticipated, Table 4.6-6 below summarizes the proposed project's consistency with applicable Housing Element policies related to housing needs. The discussion in Table 4.6-6 evaluates the proposed project relative to the applicable Housing Element policies and standards regarding housing needs.

Table 4.6-6
Discussion of Relevant City of Winters Housing Element Policies

Policies	Project Consistency
II.A.3 The City shall continue to promote the development of a broad mix of housing types, including housing to meet the needs of extremely low, very low, low, and moderate income households.	The proposed project would include development of single-family units, townhomes, and multi-family units. Additionally, the multi-family units would include a mix of very low-, low-, and moderate-income units.
II.A.4 The City shall continue to implement its 15-percent inclusionary housing ordinance for all new housing developments, including Affordable Housing Steering Committee review of residential development proposals of 15 or more units, and shall encourage applicants to include a higher percentage of affordable units than the minimum inclusionary requirement and to provide units, when appropriate and	The 4.4-acre R-4 lot proposed for high-density residences would be dedicated to the City in order to meet the City's affordable housing requirements. Pursuant to Winters Municipal Code Section 17.200.030, 15 percent inclusionary housing requirement must consist of six percent very low-income units and nine percent low-income or moderate-income units, in proportion to the unmet needs for each identified group in the 2021-2029 Housing Element Update. In addition, of the total townhome units

[12] City of Winters. *6th Cycle (2021-2029) Housing Element* [pg. 91]. Adopted September 7, 2021.

	feasible, targeted to the City's special needs groups.	constructed within the R-3 lot, 10 units would be restricted to moderate-income households.
II.A.5	The City shall encourage development in the upper one-quarter of the density range in the Medium-High-Density Residential designation and require it in the upper one-quarter of the density range in the High-Density Residential designation. Density reduction may be allowed in narrowly defined instances such as when the reduction in overall number of units increases the number of larger, family units in affordable rental developments.	The proposed townhomes would be developed within the MHR land use designation at the maximum density of 10.0 du/acre. Similarly, the proposed multi-family residential units would be developed within the HD land use designation at the maximum density of 20.0 du/acre.

As discussed below in Table 4.6-8, City of Winters General Plan Policy Discussion, the project would be generally consistent with the applicable policies outlined in the General Plan. It should be noted that while potential inconsistencies with specific policies may indicate a significant physical impact, the inconsistency is not itself an impact. The physical impacts of the project are analyzed throughout Chapters 4.1 through 4.9 of this Draft EIR.

Approval of the GPA and Rezone are discretionary actions subject to approval by the City Council. Should the City Council approve the requested entitlements, the project would be rendered consistent with the City's General Plan and Municipal Code.

From a policy perspective, Table 4.6-8 at the end of this chapter demonstrates that the proposed project would be generally consistent with the policies in the General Plan adopted for the purpose of avoiding or mitigating an environmental effect.

Furthermore, the 4.4-acre R-4 lot proposed for high-density residences would be dedicated to the City in order to meet the City's affordable housing requirements. As established in Winters Municipal Code Section 17.200.030, notwithstanding the exceptions provided therein, all development projects consisting of five or more residential units within the City must include inclusionary housing units equal to 15 percent of the total number of residential units in the development project, excluding density bonus units. The 15 percent inclusionary housing requirement must consist of six percent very low-income units and nine percent low-income or moderate-income units, in proportion to the unmet needs for each identified group in the 2021-2029 Housing Element Update, which was adopted by the City of Winters on March 15, 2022.[13] In addition, of the total townhome units constructed within the R-3 lot, 10 units would be restricted to moderate-income households. The proposed project's Affordable Housing Plan would be negotiated with and determined by the City's Affordable Housing Coordinator and reviewed by the Affordable Housing Steering Committee, prior to being taken to the Winters Planning Commission and City Council for approval with the project's other requested entitlements.

[13] City of Winters. *6th Cycle (2021-2029) Housing Element*. Adopted March 15, 2022.

Based on the above, the proposed project would not cause a significant environmental impact due to conflicts with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (including the policies discussed in Table 4.6-8), and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.6-2 Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure). Based on the analysis below, the impact is *less than significant*.

Growth can be induced in a number of ways, including through the elimination of obstacles to growth or through the stimulation of economic activity within the region. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped. The following sections describe potential effects related to direct and indirect population growth associated with implementation of the proposed project.

Direct Population Growth

The proposed 188 single-family unit development, 57 townhome unit development, and 84 multi-family unit development would increase the available housing within the City of Winters, which would increase population in the area. Using the 2.97 persons/household average household size for the City (Table 4.6-3), the proposed project would house an estimated 978 new residents (2.97 persons/unit x 329 units).

The project site is located within the City's Urban Limit Line, which defines the General Plan Area and the area of projected City growth. Therefore, development of the site with urban uses has been previously anticipated.

At buildout, the General Plan includes provisions for approximately 14,200 residents, a near doubling of the City's current population. Most residential growth is planned to occur in the northern portion of the City. In addition, the City has anticipated buildout of the City with a total of 4,794 dwelling units, approximately 578,000 sf of commercial and Central Business District uses, and approximately 264,000 sf of office uses.[14] Additionally, according to the 2020 MTP/SCS, the City is anticipated to grow to a total of 3,200 housing units by 2035 and 3,360 housing units by 2040.

Table 4.6-7 below provides a comparison of the development potential of the project site based on the maximum allowable units and commercial sf under the existing

[14] City of Winters. *Circulation Master Plan and Roadway Impact Fee Program Update* [pg. 19]. November 2018

General Plan land use and zoning designations, and the proposed number of units associated with the proposed General Plan land use and zoning designations.

Table 4.6-7
Project Site Development Potential

Scenario	Land Use Designation	Zoning	Development
Existing	LR, NC, OS	R-1, C-1, O-S	246 units, 256,133 sf of commercial uses
Proposed	LR, HR, MR, MHR, NC, OS	R-1, R-2, R-3, R-4, C-1, O-S	329 units, 37,000 sf of commercial uses

Based on Table 4.6-7, the GPA and Rezone associated with the proposed project would result in 83 additional units as compared to what was anticipated for the project site in the General Plan. However, the 83 additional units associated with the proposed project would not exceed the anticipated total 4,794 residential units in the City, nor the 3,360 units anticipated for 2040 buildout, pursuant to the 2020 MTP/SCS.

It should be noted that potential population growth impacts associated with development of the proposed project and other future cumulative development projects in the City are considered in further depth within Impact 4.6-5 below.

Indirect Population Growth

The proposed project would result in an increase of the permanent population on the project site by approximately 978 residents. This new residential population would likely patronize local businesses and services in the area, fostering economic growth. While construction of the proposed project would result in increased employment opportunities in the construction field, which could potentially result in increased permanent population and demand for housing in the vicinity of the project site, employment patterns of construction workers is such that construction workers would not likely, to any significant degree, relocate their households as a result of the construction-related employment opportunities associated with the proposed project.

The proposed project would provide short-term employment opportunities, which would likely be filled from the local employee base, with the possible exception of a few household and landscape maintenance jobs. Businesses that would be located within the commercial portion of the proposed project would provide permanent jobs associated with the proposed project. Therefore, the project could result in long-term employment growth in the area. Pursuant to the City's 6th Cycle Housing Element, a disparity in access to job locations from residences exists. The employment opportunities associated with the proposed project would provide access to jobs to existing residents of the City, consistent with the Housing Element.

The residential population generated by the proposed project would also result in an increased demand for public services. However, as discussed in Chapter 4.8, Public Services and Utilities, the project's demand for public services could be accommodated by existing services and would not create a need for new or altered governmental facilities. Furthermore, the infrastructure included in the proposed project would be sized to accommodate only the proposed project and would not add

capacity beyond what is needed to serve the site. The utility improvements included in the proposed project would be designed to serve the proposed residences only, and would not induce additional population growth within the City of Winters beyond what has been previously anticipated by the City.

Conclusion

Considering the above, the proposed project would include development that would result in direct on-site population growth. However, population growth resulting from the proposed project would be within the General Plan and SACOG growth estimates for the project area. As a result, the proposed project would not be considered to induce substantial unplanned population growth, and a ***less-than-significant*** impact would result. It should be noted that potential impacts related to growth inducement are discussed further within Chapter 5, Statutorily Required Sections, of this EIR, consistent with Section 15126.2(d) of the CEQA Guidelines.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Additional detail regarding the cumulative setting for the proposed project is included in Chapter 5, Statutorily Required Sections, of this EIR.

4.6-3 Cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Based on the analysis below, the cumulative impact is *less than significant*.

A cumulative analysis of land use is not included because land use plans or policies and zoning generally do not combine to result in cumulative impacts. The determination of significance for impacts related to such issues is whether the project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Such a conflict is site-specific, and, thus, is only addressed on a project-by-project basis. As shown in Table 4.6-8 of this chapter, the proposed project would be generally consistent with relevant policies in the City of Winters General Plan.

Therefore, the proposed project would not cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and the cumulative impact would be ***less-than-significant***.

Mitigation Measure(s)
None required.

4.6-4 Cumulative unplanned population growth. Based on the analysis below, the cumulative impact is *less than significant*.

Buildout of the City was anticipated to result in population growth through the buildout of urban and rural developments throughout the City. Several residential development projects have been completed, are underway, or approved within the City's planning area. The 2020 MTP/SCS, prepared by the SACOG, provides regional growth projections for the six-county Sacramento region, including the City of Winters.

As discussed within Impact 4.6-2 above, the project site is located within the City's Urban Limit Line, which defines the General Plan Area and the area of projected City growth. Therefore, development of the site with urban uses has been previously anticipated. In addition, the population growth related to implementation of the proposed project has been anticipated for the region by the 2020 MTP/SCS. Thus, the General Plan anticipated cumulative growth of the plan area, and increased urbanization within the General Plan area has been anticipated by regional planning such as the 2020 MTP/SCS. Because development of the project site and buildout of the City has been anticipated in regional development forecasts, buildout of the proposed project in combination with other approved developments within the project area would not result in a significant cumulative contribution to unplanned population growth within the project area or region.

It should be noted that population growth itself does not constitute a significant physical environmental effect. Rather, the determination of significance is based on whether population growth associated with a project has been previously planned for, and whether such growth could result in indirect impacts from associated development. As such, the cumulative analysis within each technical chapter of this EIR evaluates the physical environmental impacts of cumulative development.

Considering the above, implementation of the proposed project, in combination with future development occurring under buildout of the City's General Plan, would result in a ***less-than-significant*** cumulative impact related to unplanned population growth.

Mitigation Measure(s)
None required.

Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
Policy I.A.1.	The City shall seek to preserve Winters' traditional small-town qualities and agricultural heritage, while increasing its residential and employment base.	While the proposed project would result in the conversion of farmland, the farmland is not zoned as such and has already been anticipated for development in the City's General Plan. The proposed project would be subject to Mitigation Measure 4.2-1, which would preserve agricultural land elsewhere. The proposed project would provide additional housing within the City, increasing the City's residential and employment base.
Policy I.A.3.	The City shall encourage development to occur in a sequence that promotes the efficient use and extension of public facilities and services.	As discussed in Chapter 4.8, Public Services and Utilities, of this EIR, adequate public services and utilities would be available to serve the proposed development. The proposed project would connect to existing utility facilities in the vicinity of the project site and would not necessitate the development of additional public facilities.
Policy I.A.4.	The City shall link the rate of growth in Winters to the provision of adequate services and infrastructure, including schools. To this end, the City shall prepare and adopt a program to ensure that growth occurs in an orderly fashion and in pace with the expansion of public facilities and services.	As discussed in Chapter 4.8, Public Services and Utilities, of this EIR, adequate public services and utilities would be available to serve the proposed development. The proposed project would connect to existing utility facilities in the vicinity of the project site. In addition, sufficient capacity exists at schools within the Winters Joint Unified School District (WJUSD) to support the student population generated by the proposed project.
Policy I.A.5.	The City shall not approve new development unless the capacity of needed public services and facilities, including school facilities, is sufficient to accommodate that new development or a mechanism that ensures the needed facilities will be available in a timely fashion is in place.	See Response to Policy I.A.4.
Policy I.A.6.	The City shall promote the development of employment uses that improve the city's current jobs-housing imbalance.	The proposed project includes a mix of single-family, multi-family, and commercial uses, providing both new housing and job opportunities within the City. Additionally, it should be noted that the newly developed Pacific Gas and Electric Co. (PG&E) Gas Safety Academy is located to the southeast of the project site. Therefore, the project site is in the vicinity of an employment opportunity.
Policy I.A.7.	The City shall ensure its designation of land uses and approval of development projects do not hinder efforts to maintain a positive fiscal balance for the City.	The changes to land use designations on the project site would not allow for development of a radically different nature than what the City has already anticipated. The proposed project would result in an increase in property tax revenue associated with more residential uses, while resulting in a reduction of potential sales tax revenue due to the decreased

(Continued on next page)

Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
		commercial uses on the project site. The City Council will need to determine the appropriate balance in property and sales tax revenue.
Policy I.A.8.	The land use pattern and design of new development in Winters shall facilitate pedestrian convenience and the use of non-automobile forms of transportation.	The proposed project is located within walking distance of downtown Winters and includes sidewalks, bike lanes, and connections to existing roads that facilitate bike and pedestrian access to and from the project site at multiple locations.
Policy I.C.2.	The City shall seek to maintain an overall mix of 75 percent single family and 25 percent multifamily in its housing stock.	The proposed project would include 245 single-family residential units and 84 multi-family residential units, which would result in a mix of 74.5 percent single-family units and 25.5 percent multi-family units, which is almost exactly consistent with the City's desired ratio of single-family to multi-family housing.
Policy I.C.3.	The City shall promote the development of affordable housing to meet the needs of low-and moderate-income households.	As established by Section 17.200.030 of the City's Municipal Code, notwithstanding the exceptions provided therein, all development projects consisting of five or more residential units within the City limits must include inclusionary housing units equal to 15 percent of the total number of residential units in the development project, excluding density bonus units. The 15 percent inclusionary housing requirement must consist of six percent very low-income units and nine percent low-income or moderate-income units in proportion to the unmet needs for each identified group in the 2021-2029 Housing Element Update. In addition, of the total townhome units constructed within the R-3 lot, 10 units would be restricted to moderate-income households.
Policy I.C.4.	Higher density housing should be located in areas served by the full range of urban services, preferably along collector and arterial streets, and within easy walking distance of shopping areas.	The High-Density Residential portion of the proposed project would be located along SR128, across the new East Main Street to the east of the proposed commercial uses. Thus, higher density housing would be located within walking distance of a shopping center.
Policy I.D.1.	The City shall promote expansion of the range of retail goods and services offered in Winters to capture a larger share of expenditures by Winters' residents and minimize the need for Winters' residents to shop outside the city.	While the proposed project would designate and rezone the project site to include less future commercial uses than what would be facilitated under the site's existing land use and zoning designations, the proposed project would nevertheless introduce new commercial uses where none currently exist. Therefore, the proposed project would be generally consistent with this policy.
Policy I.D.2.	The City shall promote the establishment, maintenance, and expansion of businesses in Winters that generate high retail sales taxes as important contributors to the local economy.	The tenants of the commercial space that would be included as part of the proposed project are currently unknown. However, the proposed project

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
		would add commercial square footage for the City to allocate to businesses in order to achieve this goal.
Policy I.E.2.	The City shall work with the private sector to promote job creation and a better jobs/housing balance.	See Response to Policy I.A.6.
Policy II.A.1.	The City shall continue to promote the development of a broad mix of housing types.	The proposed project would include a mix of single-family and multi-family housing units and a variety of lot sizes.
Policy II.A.2.	The City shall strive to provide for its fair share of the region's housing needs.	The City of Winters City Council adopted a 6th Cycle 2021-2029 Housing Element on September 7, 2021 in compliance with the RHNA. The 329 units included as part of the proposed project would significantly contribute to the goal identified in the Housing Element.
Policy II.A.3.	The City shall maintain an adequate supply of residential land in appropriate land use designations and zoning categories to accommodate Winters' fair share of projected regional growth and maintain normal residential vacancy rates.	The proposed project includes residential development to accommodate regional growth.
Policy II.A.4.	The City shall seek to maintain an overall mix of 75 percent single family and 25 percent multifamily in its housing stock. This policy shall not be implemented in such a way that it would operate as a constraint of the City's ability to meet its regional fair share allocation for housing for very-low- and low-income households.	See Response to Policy I.C.2.
Policy II.A.5.	While promoting the provision of housing for all economic segments of the community, the City shall seek to ensure the highest quality in all new residential development.	The proposed project would be required to construct all new residential buildings in accordance with applicable zoning and design standards. In addition, as part of development of the proposed R-2 residences, the project would require City approval of a PD. The PD would reviewed for consistency with applicable design standards.
Policy II.A.8.	All housing development proposals involving 50 units or more shall be required to submit development plans to the Affordable Housing Commission for review. All such projects shall be encouraged to qualify for a density bonus under the density bonus provisions of state law.	Consistent with this policy, the applicant shall submit plans to the Affordable Housing Commission for review.
Policy II.C.1.	As required by state law, the City shall require the use of energy conservation features in the design of all new residential structures. The City shall also promote incorporation of energy conservation and weatherization features in existing homes.	As discussed in Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, the proposed project is required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the California Building Standards Code (CBSC) and California Air Resources Board (CARB) standards, which would ensure that

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
		the proposed project would be designed to be energy efficient to the maximum extent practicable. Adherence to the most recent California Green Building Standards (CALGreen) Code and the Building Energy Efficiency Standards would ensure that the proposed development on-site would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting.
Policy II.D.2.	The City shall ensure that new residential development pays its share in financing public facilities and services.	Pursuant to the City's Municipal Code, all subdivisions are subject to development impact fees to support financing of public facilities and services.
Policy II.D.4.	The City shall strive to ensure that necessary public facilities and services including School District facilities, are available prior to occupancy of residential projects.	See Response to Policy I.A.4.
Policy II.D.5.	The City shall promote infill residential development where adequate public facilities and services are already in place.	As discussed in Chapter 4.8, Public Services and Utilities, of this EIR, with payment of applicable development impact fees, adequate existing public services and utilities would be available to serve the proposed development. The project site is primarily surrounded on three sides by existing development, and the proposed project would be infill residential development.
Policy III.A.2.	Streets shall be dedicated, constructed, widened, extended, and modified according to City standards specified in Part I of this Policy Document. Dedication and improvement of full rights-of-way may not be required in existing developed areas where the City determines that such improvements are either infeasible or undesirable. The City may allow other deviations from these standards if the City determines that safe and adequate public access and circulation, including pedestrian convenience, are preserved by such deviations.	From East Main Street and Street A, access would be provided to the proposed internal circulation system, which would be comprised of streets designed similarly to Street A that would provide access to the various uses within the site (Streets B through F and Broadview Lane). It should be noted that Broadview Lane, which would be constructed in an east-to-west direction, would connect to the existing portion of Broadview Lane to the west of the project site, which is currently stubbed at the western site boundary. Similarly, Street F in the northern portion of the site would connect to the existing Almond Drive in the Walnut Lane 10 parcel. The proposed project's street frontage, roadways, and access points would be designed in accordance with all applicable standards established in the City's Municipal Code.
Policy III.A.3.	To identify the potential impacts of new development on traffic service levels, the City shall require the preparation of traffic	A Transportation Study for the proposed project was prepared in June 2024 by Fehr & Peers. See Chapter 4.9, Transportation, for a full discussion of potential impacts of proposed new development on traffic service levels.

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
	impact analyses at the sole expense of the developer for developments with 20 or more lots or units.	
Policy III.A.9.	The City shall require street designs consistent with principles of interconnected network path design. The City shall insure that there are multiple, local-street access points to all developments throughout the city. The City shall insure that direct access to all local streets from primary and secondary collectors is maintained. At the discretion of the City, alleys may be used in conjunction with the overall street layout.	Primary site access would be provided from SR 128 by way of two new entrances, which would provide access to new internal roads, East Main Street and Street A. Additionally, Broadview Lane, which would be constructed in an east-to-west direction within the project site, would connect to the existing off-site portion of Broadview Lane, which is currently stubbed at the western site boundary. Similarly, Street F in the northern portion of the site would connect to the existing off-site Almond Drive in the Walnut Lane 10 parcel. Thus, four local-street access points would be provided to the proposed development.
Policy III.A.10.	Street designs should promote pedestrian and bicycle travel and should emphasize safety over travel speed and capacity. Collector streets should not be used as separators of neighborhoods.	As discussed in Chapter 4.9, Transportation, implementation of Mitigation Measure 4.9-1(a) and 4.9-1(b) would ensure that adequate pedestrian and bicycle facilities are constructed, which would promote pedestrian and bicycle travel and safety. Additionally, internal roadways would be designed in accordance with all applicable standards established in the City's Municipal Code, which would ensure that hazards are not increased due to a geometric design feature.
Policy III.A.11.	Neighborhood streets shall be designed to discourage unsafe traffic speeds.	All internal roadways constructed as part of the proposed project would be required to comply with all applicable engineering and design standards.
Policy III.A.12.	The City shall encourage the use of curb corner radii that slow traffic turning movements and minimize pedestrian crosswalk lengths, but are consistent with fire truck turning needs.	See Response to Policy III.A.11.
Policy III.A.14.	Industrial and commercial development shall be planned so that truck access through residential areas is avoided.	Truck access to the proposed commercial lots would be provided by SR 128. Trucks would not be required to travel through the proposed residential lots in order to reach the proposed commercial lots.
Policy III.A.15.	The City shall ensure through a combination of traffic impact fees and other funding mechanisms that new development pays its share of the costs of circulation improvements.	The applicant would be required to pay all applicable development impact fees.
Policy III.A.16.	The City shall prohibit development of private streets in new residential projects, except in extraordinary circumstances. In such cases, the private streets shall be developed to City street standards.	The proposed project would not develop private streets.

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
Policy III.B.3.	The City shall require bus turnouts and shelters in higher density residential and commercial areas and other areas deemed appropriate.	The proposed project would include the construction of a new bus stop and turnout on westbound SR 128 west of East Main Street.
Policy III.D.1.	To the extent feasible, the City shall provide for separation of residential and other noise sensitive land uses from major roadways to reduce noise and air pollution impacts.	While the project site and proposed residential development is located adjacent to SR 128, as discussed in Chapter 4.3, Air Quality, Greenhouse Gases, and Energy, and Chapter 4.7, Noise, impacts related to exposing sensitive receptors to substantial pollutant concentrations or noise levels would be less than significant.
Policy III.F.1.	The City shall require provision of adequate off-street parking in conjunction with all new developments. To the extent possible, parking shall be located behind buildings, out of view from the street. When it is not possible for parking lots to be placed behind buildings, the City shall require screening to mitigate the visual impact of the lots while providing for continued police surveillance. As much as possible, parking lots should not be located at intersections.	Specific development plans for off-street parking locations are not currently provided, however, future off-street parking development would be designed in accordance with such requirements from the City.
Policy III.G.1.	The City shall create and maintain a safe and convenient system of pedestrian and bicycle routes that encourages walking or bicycling as an alternative to driving. The pedestrian bicycle system shall connect all residential areas, schools, and shopping and employment areas in the city. The bicycle system shall favor on-street bike lanes over separated bike paths. New development shall be required to pay its share of the costs for development and maintenance of this system.	See Response to Policy III.A.15. Additionally, the proposed project would include the construction of Class I shared-use path on the northern edge of SR 128 between Morgan Street and Timber Crest Road/PG&E Way; Westbound Class II bike lane on SR 128 between Morgan Street and Timber Crest Road/PG&E Way; Class II bike lanes on East Main Street between SR 128 and the northern project site boundary; Class I shared-use path on the eastern project site boundary between the northwest corner of the SR128/Timber Crest Road/PG&E Way intersection and the northern project site boundary; and sidewalks on internal roadways within the project site. The location and type of bicycle and pedestrian facilities that would be constructed by the project would be consistent with those identified in the Bikeway System Master Plan and the Grant Avenue Design Guidelines, particularly the new Class I shared-use path and westbound Class II bike lane on the northern side of SR 128.
Policy III.G.2.	The City shall require installation of sidewalks along all streets in all newly developing areas.	As discussed in Chapter 4.9, Transportation, the proposed project would include the construction of sidewalks and gutters pursuant to applicable standards along the internal streets

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
Policy III.G.4.	Where cul-de-sacs are deemed necessary or desirable, pedestrian/bicycle paths shall, wherever possible, be required to connect from the cul-de-sac bulb to the next street.	The proposed project would not include the development of cul-de-sacs.
Policy III.G.6.	The City shall require inclusion of bicycle parking facilities at all new major public and quasi-public facilities and commercial and employment sites. Major employers shall be encouraged to provide showers and lockers in their facilities to encourage biking.	The proposed project would include bicycle parking facilities.
Policy IV.A.1.	The City shall ensure, insofar as possible, that public facilities and services are developed and operational as they are needed to serve new development.	See Response to Policy I.A.3.
Policy IV.A.3.	The City shall ensure through capital facility planning and budgeting and through review of private development projects that City-adopted level of service standards are maintained.	The proposed project would be reviewed by the City to ensure that City adopted level of service standards are maintained.
Policy IV.A.4.	The City shall ensure through a combination of development fees and other funding mechanisms that new development pays its fair share of the costs of developing new facilities and services. The City at its sole discretion may allow developers to construct needed improvements according to City specification in lieu of paying development fees for such improvements.	The proposed project would be required to pay all applicable development fees.
Policy IV.B.12.	The City shall, to the extent practical, require the use of drought-tolerant plant species and drip irrigation systems in the landscaping of new public and private open space areas, common areas, and parks.	The City would be responsible for the installation of park facilities, irrigation systems, walkways, hardscaping, trails, lighting, and landscaping within the proposed park lots. Landscaping components within the park lots would, therefore, be determined by the City.
Policy IV.B.13.	The City shall promote the use of treated sewage effluent for public and private landscape maintenance and agricultural irrigation.	The proposed project would connect to the City's sanitary sewer system. Pursuant to the City of Winters Wastewater Treatment Facility Master Plan Update, treated effluent from the City of Winters Wastewater Treatment Facility (WWTF) is provided as recycled water to local farmers for crop irrigation.
Policy IV.B.14.	The City shall require water meters on all new hook-ups and shall develop a meter retrofit program for existing connections.	The proposed project would comply with all requirements regarding water meters on all new development.
Policy IV.C.2.	The City shall ensure the provision of adequate sewer service to all new development in the city.	See Response to Policy I.A.3. Adequate sewer service exists within the City of Winters to provide sewer service to the proposed project.

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
Policy IV.D.2.	The City shall expand and develop storm drainage facilities to accommodate the needs of existing and planned development.	The proposed project would include new on-site stormwater facilities to detain and treat stormwater runoff from the site's new impervious surfaces, as well as runoff from adjacent properties.
Policy IV.D.5.	Future drainage system discharges, including discharges into Putah Creek, shall comply with applicable state and federal pollutant discharge requirements.	As discussed in Section X, Hydrology and Water Quality, of the Initial Study prepared for the proposed project, discharges associated with construction of the proposed project would comply with the federal National Pollutant Discharge Elimination System (NPDES) program and the State's General Construction permit. In addition, In addition, with respect to operation of the proposed project, Chapter 13.08.030 of the City's Municipal Code requires operation of the commercial facilities to comply with the required NPDES permit or waste discharge requirements and demonstrate coverage through creation of a Storm Water Pollution Prevention Plan (SWPPP), as required by the State's General Construction Permit.
Policy IV.F.1.	The City shall, through adequate staffing and patrol arrangements, endeavor to maintain the minimum feasible response times for police calls. The goal for average response time for Priority 1 (emergency) calls shall be three minutes.	The Winters Police Department (WPD) has indicated that new or physically altered law enforcement facilities would not be needed to adequately serve the proposed project, and, therefore, the proposed project would not result in an inconsistency with goal response times.
Policy IV.H.4.	The City shall cooperate with the School District in an effort to ensure adequate financing for new school facilities. To this end, the City shall cooperate with the School District in the collection of school facility development fees from new residential and non-residential development.	The proposed project would be required to pay all applicable school facility development fees.
Policy IV.H.6.	The City shall not approve any development entitlements, including building permits for new residences, unless a mechanism to mitigate school impacts generated by the project has been approved by the City. This mechanism may include the dedication of land, development fees, a commitment to funding through an assessment district or Mello-Roos Community Facilities II-32 District, the phasing of the project, reduction in density, or some other mechanism which mitigates or avoids the school impacts attributable to the development.	The proposed project would be required to pay development impact fees to the WJUSD. The current impact fee rate, effective May 20, 2024, is $5.17 per sf of residential development, and $0.84 per sf of commercial development. Additional mechanisms to mitigate impacts to schools would be pursuant to the discretion of the City.
Policy IV.J.2.	Utility company rights-of-way shall be considered for use as public or private open space, trails, parkland, or other compatible recreational uses.	A PG&E pole line easement is located within the proposed drainage channel within the proposed Open Space land use designation and zone.

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
Policy IV.J.3.	The City shall require all new electrical and communication lines to be installed underground. The City shall actively promote the undergrounding of existing overhead facilities.	In accordance with Winters Municipal Code Section 16.20.020, existing aboveground infrastructure would be undergrounded, and new natural gas, electricity, and telecommunications infrastructure would be extended into the project site within the internal street system.
Policy V.A.2.	To the extent authorized by law, the City shall require all new residential development to dedicate improved parkland or pay equivalent in-lieu fees based on a standard of five acres of improved parkland per 1,000 population. Golf course development and creek setbacks shall not be counted toward meeting the park dedication requirement.	The proposed project is anticipated to result in 978 new residents, and, therefore, the proposed project would be required to dedicate approximately 4.89 acres of improved parkland. Thus, a total of 6.9 acres of parkland within the project site for the 978 new residents would meet the City's parkland requirement, and the proposed project would not be subject to City park dedication in-lieu fees.
Policy V.A.3.	New residential developments shall be required to fund park maintenance through a landscaping and lighting district or other appropriate mechanism.	The City would be responsible for ensuring a landscaping and lighting district creation in the Conditions of Approval for the proposed project.
Policy V.A.5.	Neighborhood parks shall be integrated into, and become focal points of, new residential neighborhoods.	The proposed project would dedicate three lots, totaling 6.9 acres, to be designed and constructed by the City of Winters with park uses (Lots D, E, and F).
Policy V.A.9.	Parks shall be located, oriented, and designed in such a way as to facilitate security, policing, maintenance, and pedestrian bicycle access.	Park Lots D and E would be located in the southeast portion of the project site, with access from SR 128. The location of Lots D and E in proximity to SR 128 would allow for emergency vehicle access to the parks. The parks would also be required to comply with City fencing and lighting standards, which would increase security. Additionally, Parks D and E would contain an eight-foot-wide bike trail, and Lot F would contain a 12-foot-wide bike trail, providing pedestrian and bicycle access.
Policy V.A.13.	The City shall emphasize the use of drought-tolerant and drought-resistant landscaping in the development of City parks.	See Response to Policy IV.B.12.
Policy V.A.14.	The City shall encourage the use of open space and recreational uses as buffers between incompatible land uses.	The low-density residential units, located in the northern portion of the project site, would be located adjacent to existing agricultural uses. Walnut Lane would serve as a buffer zone between the project site and the existing agricultural land.
Policy V.B.1.	The City shall promote the provision of private open space and recreation facilities in largescale residential developments.	See Response to Policy V.A.5.
Policy V.D.1.	Winters' historically and architecturally significant buildings and sites should be preserved and enhanced to the fullest degree possible.	As discussed in Chapter 4.5, Cultural and Tribal Cultural Resources, the project site does not contain existing historically and architecturally significant buildings or sites.

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
Policy V.F.1.	The City shall refer development proposals that may adversely affect archaeological sites to the Northwest Information Center of the California Archaeological Inventory for review and comment.	As discussed in Chapter 4.5, Cultural Resources, a cultural resources literature search for the project site was completed at the Northwest Information Center (NWIC), a branch of the California Historical Resources Information System (CHRIS) at Sonoma State University, Rohnert Park, on April 18, 2019. The records search was conducted to determine the extent of previous surveys within a 0.25-mile radius of the proposed project location, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within the area. Two previously recorded cultural resources were identified within 0.25-miles of the project site: the Willow Canal (P-57-000437) and the Vaca Valley Railroad Route Historic District (P-57-000715). Although a segment of the Willow Canal previously overlapped with the project site, during the pedestrian survey, the Willow Canal was found to have been completely removed from the project site. Similarly, the Vaca Valley Railroad Route Historic District is not located on the project site. Thus, development of the proposed project on the project site would not have the potential to affect either resource.
Policy V.F.2.	The City shall undertake an archaeological sensitivity survey of the entire area within the Urban Limit Line. Such study shall classify areas as "low-sensitivity," moderate sensitivity," and high-sensitivity." Within areas classified as "high-sensitivity," an archaeological site survey will be required in conjunction with project applications. In all other areas, no field surveys will be required. However, if archaeological artifacts are discovered during grading or construction, grading or construction must stop pending an archaeological investigation and identification of appropriate mitigation measures. City implementation of this policy shall be guided by Appendix K of the *State CEQA Guidelines.*	Implementation of Mitigation Measure 4.5-2 would ensure that in the event subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, shall be retained by the applicant to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment.
Policy VI.B.1.	The City shall support the continuation of agricultural and related uses on lands within the Urban Limit Line designated for urban uses until urban development is imminent.	As discussed in Chapter 4.2, Agricultural Resources, the proposed project would convert 52.3 acres of Prime Farmland to non-agricultural uses. However, The City of Winters General Plan designates the northwest portion of the site as LR and the southern portion of the site as NC. In

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
		addition, the project site is within the Urban Limit Line. Therefore, the project site has been designated for urban uses, and conversion of farmland associated with development of portions of the site has already been anticipated by the City.
Policy VI.B.3.	Along the northern and western portion of the Urban Limit Line new residential development that abuts designated and active agricultural land shall incorporate buffers to minimize agricultural-residential conflicts and nuisance problems. The size of the buffer zone shall be determined by the type of agricultural activities involved. The buffer zone may consist of open space, recreational uses, landscaped areas, streets or other non-intensive uses.	As discussed in Chapter 4.2, Agricultural Resources, the Urban Limit Line is approximately 0.5-mile to the north of the project site. Therefore, the project site is not located along the Urban Limit Line.
Policy VI.C.1.	Prior to approving public or private development projects in areas containing or adjacent to areas containing large trees, riparian vegetation, wetlands, or other significant wildlife habitat, the City shall require the project area and its environs be field surveyed for the presence of special-status plant and animal taxa. Such field surveys shall be conducted by a qualified biologist. If special-status taxa are encountered during the field surveys, appropriate measures shall be developed to minimize disturbance and protect identified populations where feasible.	As discussed in Chapter 4.4, Biological Resources, pedestrian field surveys were conducted by Madrone Ecological Consulting botanists and wildlife biologists during the preparation of a Valley Elderberry Longhorn Bettle (VELB) Habitat Report, a Special-Status Plant Survey Report, and an Aquatic Resources Delineation Report. Special-status taxa were not encountered during the field survey. However, Mitigation Measure 4.4-1 through 4.4-9 would require pre-construction surveys to assess impacts related to special-status plant and wildlife species identified as having potential to occur on-site or in the vicinity of the project site.
Policy VI.C.2.	In regulating private development and constructing public improvements, the City shall ensure that there is no net loss of riparian or wetland habitat acreage and value and shall promote projects that avoid sensitive areas. Where habitat loss is unavoidable, the City shall require replacement on at least a 1:1 basis. Replacement entails creating habitat that is similar in extent and ecological value to that displaced by the project. The replacement habitat should consist of locally-occurring, native species and be located as close as possible to the project site. Implementation of this policy should be based on baseline data concerning existing native species. Study expenses shall be borne by development.	As discussed in Chapter 4.4, Biological Resources, of this EIR, the proposed project would not result in the net loss of riparian or wetland habitat.

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
Policy VI.C.3.	Unless there are overriding considerations as defined in the California Environmental Quality Act, the City shall not approve any project that would cause significant unmitigable impacts on rare, threatened, or endangered wildlife or plant species.	As discussed in Chapter 4.4, Biological Resources, of this EIR, all impacts on rare, threatened, or endangered wildlife or plant species can be mitigated to a less-than-significant level.
Policy VI.C.5.	The City shall require mitigation of potential impacts on special-status plant and animal taxa based on a policy of no-net-loss of habitat value. Mitigation measures shall incorporate as the City deems appropriate, the guidelines and recommendations of the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Implementation of this policy may include a requirement that project proponents enter into an agreement with the City satisfactory to the City Attorney to ensure that the proposed projects will be subject to a City fee ordinance to be adopted consistent with the regional Habitat Management Plan.	As discussed in Chapter 4.4, Biological Resources, of this EIR, mitigation measures for potential impacts on special-status plant and wildlife species are based on a policy of no-net-loss of habitat value, and are pursuant to the guidelines and recommendations of the U.S. Fish and Wildlife Service and the California Department of Fish and Game.
Policy VI.C.7.	The City shall promote the use of drought-tolerant and native plants, especially valley oaks, for landscaping roadsides, parks, schools, and private properties.	See Response to Policy IV.B.12.
Policy VI.C.8.	Parks, the drainage detention areas, and golf course development shall incorporate areas of native vegetation and wildlife habitat.	See Response to Policy IV.B.12.
Policy VI.C.9.	Large, older and historically-significant trees should not be removed unless they are diseased or represent an unavoidable obstacle to development. Development should be designed and constructed to avoid adverse impacts on such trees.	The perimeter of the project site contains numerous trees, including valley oak, paradox walnut, English walnut, olive, and common fig along the southern border; volunteer domestic almond trees along the northern, eastern, and western boundaries; and two large coast redwoods located immediately north of the center of the southern property line. As such, the proposed project could require the removal of a number of trees on-site. However, pursuant to Section 12.08.010 of the Winters Municipal Code, an application to the City's tree commission is required to plant, move, remove, or replace a tree. Applications are required to state the number and kind of trees proposed to be moved, removed or replaced, and any other information that the City Manager shall find reasonably necessary to a fair determination of whether or not authority should be issued. Pursuant to Mitigation Measure 4.4-13(b), the project applicant would obtain

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
		authorization from the City Manager to plant, move, remove, or replace any tree on the project site prior to the initiation of any such activities.
Policy VI.D.4.	Any upstream development that creates potential erosion impacts on Dry Creek and Putah Creek shall be required to adopt all feasible measures to mitigate such impacts.	As discussed in Section X, Hydrology and Water Quality, of the Initial Study prepared for the proposed project, during project construction, after grading, and prior to overlaying the ground surface with impervious surfaces, the potential exists for wind and water erosion to discharge sediment into stormwater runoff, which could adversely affect water quality. However, the preparation and implementation of a SWPPP, adherence to Best Management Practices (BMPs), and acquisition of a General Construction Permit would ensure that any impact related to the violation of water quality standards or waste discharge requirements during construction or operation would remain at a less-than-significant level. During operations, new impervious surfaces on the project site could contribute incrementally to soil erosion and the degradation of downstream water quality during storm events. However, implementation of all applicable Low Impact Development (LID) measures, BMPs, and other City of Winters Public Works Department standards would reduce pollutants in urban runoff to the maximum extent practicable.
Policy VI.E.2.	The City shall utilize the CEQA process to identify and avoid or mitigate potentially significant air quality impacts of new development. The CEQA process shall also be utilized to ensure early consultation with the Yolo-Solano Air Pollution Control District concerning air quality issues associated with specific development proposals.	The proposed project has undergone the CEQA process to identify and avoid or mitigate potentially significant air quality impacts. See Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, of this EIR for a full discussion of air quality impacts and mitigation measures.
Policy VI.E.4.	Major intersections shall be designed to minimize long vehicle delays which result in carbon dioxide (CO) "hot spots."	As discussed in Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, of this EIR, based on the CalEEMod estimates calculated for the proposed project, project operations would result in maximum CO emissions of 296 lbs/day, which is below the screening level applicable to the proposed project. Therefore, the proposed project would not expose sensitive receptors to substantial concentrations of localized CO and impacts related to localized CO emissions would be less than significant.
Policy VI.E.5.	The City shall, to the extent practicable, separate sensitive land uses from significant sources of air pollutants or odor emissions.	The project site is located in the vicinity of the PG&E Gas Safety Academy and existing agricultural uses. However, according to the Winters PG&E Gas Operations Technical Training Center EIR prepared in February 2015,

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
		the site is not significant source of air pollutants or odor emissions. In addition, the City's right-to-farm ordinance would ensure that odor emissions resulting from agricultural uses are not considered a nuisance to sensitive land uses.
Policy VI.E.6.	The City shall require for both public and private projects that construction-related dust be minimized. Larger projects that create a potential for generating a significant amount of construction-related dust shall be required to include dust control measures as part of their construction mitigation plans.	All projects within the Yolo-Solano Air Pollution Control District (YSAQMD), including the proposed project, are required to comply with all YSAQMD rules and regulations for construction, including Rule 2.1 (Control of Emissions), Rule 2.28 (Cutback and Emulsified Asphalts), Rule 2.5 (Nuisance), Rule 2.14 (Architectural Coatings), and Rule 2.11 (Particulate Matter Concentration). In addition, YSAQMD encourages all projects to implement best management practices to reduce dust emissions and avoid localized health impacts. Compliance with the aforementioned rules and regulations related to construction, as well as implementation of best management practices for dust, would help to minimize emissions generated during construction activities.
Policy VI.E.8.	The City shall attempt through careful land use and site planning to reduce automobile use.	Implementation of Mitigation Measure 4.9-2 would reduce residential Vehicle Miles Traveled (VMT) per capita associated with the project residential component by implementing transportation demand management (TDM) strategies to reduce external vehicle trips generated by the project. While it is uncertain if TDM strategies would be able to sufficiently reduce VMT generated by the project to levels below the thresholds of significance, and the impact would remain significant and unavoidable, the requirement of TDM strategies would constitute an attempt by the City to reduce automobile use.
Policy VI.E.10.	The City shall contribute through tree planting and preservation to the enhancement of air quality.	Landscaping for the proposed project would include the planting of one tree per lot, in accordance with Section 12.08.100 of the Winters Municipal Code, as well as various street trees and trees within the commercial and park areas of the project site.
Policy VI.E.11.	In granting development entitlement, the City shall require all new industrial and commercial developments within the city projected to generate more than 500 trips per day (based on typical generation rates) to develop an air quality mitigation plan. This plan shall include an analysis of how the project would utilize site planning, mixed land uses, transportation systems management measures (e.g., carpooling, van	While the proposed project would generate more than 500 trips per day, as discussed in Chapter 4.3, Air Quality, Greenhouse Gas Emission, and Energy, operational emissions associated with the proposed project would not exceed the applicable thresholds of significance. See Impacts 4.3-2 and 4.3-3.

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City of Winters General Plan Policy Discussion

Policy		Project Consistency
	pooling, shuttle bus service, transit incentives, etc.) to reduce by 25 percent the number of trips that would typically be projected for such development. Where this goal cannot be met by these methods, the plan shall provide for off-site mitigation through funding of air quality improvements such as new park-and-ride lots, sidewalks, bike paths, and support of transit, as deemed acceptable to the City.	In addition, as discussed in Chapter 4.9, Transportation, the proposed project would be required to implement *Mitigation Measure 4.9-2*, which would reduce external vehicle trips generated by the project by developing and implementing TDM strategies.
Policy VI.F.1.	In approving new residential subdivisions, the City shall promote the maximum feasible east-west alignment of lots for southern solar exposure, as required by the State Subdivision Act.	The lots within the proposed subdivision generally follow an east-west alignment.
Policy VI.F.2.	The City shall encourage and promote examples of energy efficient design and operation of new residential, commercial, and industrial development projects.	As discussed in Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, the proposed project would not result in the inefficient or wasteful use of energy.
Policy VI.F.4.	The City shall provide for the dedication of sunlight easements in connection with land divisions, pursuant to Government Code §66475.3.	Pursuant to Government Code Section 66475.3, the dedication of sunlight easements shall be provided for all units within the proposed subdivision. Each unit shall have the right to receive sunlight across adjacent parcels or units in the subdivision for any solar energy system.
Policy VII.C.1.	The City shall require that new development provides all necessary water service, fire hydrants, and access roads consistent with Fire Protection District standards.	The proposed project would comply with all Winters Fire Department standards.
Policy VII.C.2.	The City shall endeavor to achieve and maintain adequate water fire-flows throughout the city and shall regularly monitor fire-flows to ensure adequacy. New development shall comply with the following minimum fire-flow rates: **Development Category — Gallons Per Minute** Single-Family Residential — 1,500 Multi-Family Residential — 1,500 Central Business District — 2,000 Industrial/Other Business Districts — 3,000 In areas where there are existing water system deficiencies, the City shall require new development to install all on-site water system improvements necessary to achieve the above	Development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors) and would be designed in accordance with the latest requirements of the California Fire Code. The proposed project would comply with all applicable minimum fire-flow rates. If the existing water system is deficient, the proposed project would include installation of on-site water system improvements necessary to achieve the above fire-flow rates.

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Table 4.6-8
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Policy		Project Consistency
	fire-flow rates but may waive full compliance with these standards until existing water system deficiencies are corrected.	
Policy VII.C.4.	All new development shall be constructed according to fire safety and structural stability standards contained in the latest adopted Uniform Fire and Building Codes and related regulations.	The proposed project would comply with all development standards included within the latest adopted Uniform Fire and Building Codes and related regulations.
Policy VII.C.5.	To minimize the dependence of new developments on City firefighting personnel and equipment, the City may require installation of built-in fire suppression equipment in all new development.	The proposed project would comply with all fire suppression requirements from the City.
Policy VII.C.6.	The City shall require property owners to remove fire hazards, including vegetation, hazardous structures and materials, and debris, as directed by the Fire Protection District and Public Works Department.	Property owners at the proposed future residential and commercial developments would be required to remove fire hazards, including vegetation, hazardous structures and materials, and debris, as directed by the City of Winters Fire Department and Public Works Department.
Policy VII.C.7.	The City shall ensure that new development provides for adequate fire equipment access and, where appropriate, includes the use of fire-resistant landscaping and building materials.	As discussed in Chapter 4.9, Transportation, the proposed project would not result in inadequate emergency access. In addition, the proposed project would be designed in accordance with the latest requirements of the California Fire Code.
Policy VII.D.2.	The City shall identify emergency access routes and shall ensure that they are kept free of traffic impediments.	As discussed in Chapter 4.9, Transportation, the proposed project would not result in inadequate emergency access.
Policy VII.E.1.	The City shall evaluate the compatibility of various land uses with nearby noise sources based on the standards in Table II-3.	As discussed in Chapter 4.7, Noise, noise levels at existing residential uses from components of the proposed project would be within the acceptable range.
Policy VII.E.2.	The City shall require new residential development to comply with applicable provisions of the *California State Noise Insulation Standards (California Code of Regulations, Title 24, Part 2, Appendix, Chapter 35)* and the *Uniform Building Code (Appendix Chapter 35)*, and updates thereof. These provisions include, but are not limited to, the following standards: a) Ldn values due to exterior noise sources shall not exceed 45 dBA inside habitable rooms of new multi-family dwellings (apartments, condominiums, hotels, motels, etc.).	As discussed in Chapter 4.7, Noise, interior noise at existing residential uses would not exceed 45 dB as a result of any component of the proposed project. Interior noise at the proposed new residential development was not evaluated, as such analysis is not required under CEQA. However, all proposed residential development would be constructed to comply with applicable provisions of the California State Noise Insulation Standards (California Code of Regulations, Title 24, Part 2, Appendix, Chapter 35) and the Uniform Building Code (Appendix Chapter 35), and updates thereof.

(Continued on next page)

Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
	b) Assemblies dividing units within multi-family dwellings shall have laboratory certified STC ratings of 50 or more (NIC 45 or more if field tested). In addition, floor/ceiling assemblies shall have laboratory certified IIC ratings of 50 or more (45 if field tested).	
Policy VII.E.3.	Ldn values above 45 dBA due to exterior noise sources shall be prohibited inside habitable rooms of all new dwellings.	As discussed in Chapter 4.7, Noise, exterior noise sources as a result of the proposed project would not result in interior noise at residential units exceeding 45 dB.
Policy VII.E.4.	Non-transportation noise sources which are potentially intrusive shall be evaluated in terms of the noise level limits in Tables II-4 and II-5. In applying these limits, the corrections in Table II-6 shall be added to account for the nature of the noise.	As discussed in Chapter 4.7, Noise, non-transportation noise sources at existing noise-sensitive uses were evaluated based on the City exterior noise standards pursuant to Policy VII.E.4.
Policy VII.E.6.	Any project that would cause existing traffic-related noise levels in existing residential areas to increase more than 3 dB shall be required to evaluate the feasibility of noise mitigation measures.	As discussed in Chapter 4.7, Noise, traffic noise at existing noise-sensitive receptors would not increase by more than 3.0 dB.
Policy VII.E.7.	The City may also require preparation of a noise study when L_{dn} standards are met or inapplicable, but 1) a potentially intrusive noise source is proposed near a noise sensitive area, or 2) a noise sensitive land use is proposed near a potentially intrusive noise source.	An Environmental Noise and Vibration Assessment was prepared for the proposed project. The conclusions of the Assessment are discussed in Chapter 4.7, Noise.
Policy VII.E.8.	Required noise studies shall be the responsibility of the project applicant, and shall be consistent with the state guidelines for noise study reports. Such studies shall be performed by a qualified consultant and shall include the following: a) A summary of noise data collected, and/or descriptions of the methodologies used to determine existing and expected noise levels and noise descriptors such as Leq or Ldn. b) Figures or maps showing the locations of noise sources and noise sensitive areas. c) A description of the impacts of existing and future (20 years hence) noise levels on the project and/or impacts due to the project on the surrounding area. The standards	An Environmental Noise and Vibration Assessment was prepared for the proposed project. The conclusions and methodologies of the Assessment are discussed in Chapter 4.7, Noise. See Appendix J of this EIR.

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
	in this section of the General Plan Policy Document shall form the basis for impact assessment. d) Specifications of any noise mitigation measures recommended to ensure compliance with the standards in this General Plan Policy Document. e) Description of the expected effects of the mitigation measures.	
Policy VII.E.11.	The City shall encourage development designers to minimize noise levels through such measures as the following: a) Locating outdoor activity spaces such as yards, patios, and decks in areas where noise levels are low. b) Locating and orienting buildings to place noise sensitive indoor spaces such as living rooms and bedrooms in areas with low noise levels. c) Locating relatively non-noise sensitive structures such as commercial buildings to shield noise sensitive areas such as residences and care facilities from noise sources. d) Using berms, walls, and setbacks to shield noise sensitive areas from noise sources. Walls shall only be used as a last resort. e) Provide appropriate muffling devices or enclosures for new noise sources located near noise sensitive areas.	Specific development plans for each proposed residential building are not currently provided, however, future development would be designed in accordance with all applicable regulations regarding noise attenuation. With regard to provision c, the proposed commercial lots would be located between SR 128 and the proposed single-family residential lots, therefore, shielding noise sensitive areas such as residences and care facilities from noise sources.
Policy VIII.A.1.	The City shall maintain and enhance the distinctiveness and integrity of neighborhoods and districts in Winters.	The proposed project would be required to comply with the City of Winters Design Guidelines, which aim to regulate and guide the design and preparation of plans for construction and set guidelines for all private works which involve drainage, grading, erosion control, trees, and related improvements. Standards for residential development include, but are not limited to, encouraging features such as street parkways, a historic grid design of streets, inter-connectivity between neighborhoods for pedestrians and bicycles, and a mix of large and standard lots within a development project. Compliance with such guidelines would ensure that new residential development maintains the small-town character of the City.

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy		Project Consistency
Policy VIII.A.2.	The City shall preserve the vital qualities of existing, stable residential neighborhoods and shall promote the development of new residential neighborhoods with these same qualities.	See Response to Policy VIII.A.1.
Policy VIII.A.5.	The City shall seek to maintain a distinct agricultural definition to the urban edge of the city as a means of emphasizing Winters' small-town qualities and agricultural heritage.	The urban edge of the City, the northern portion of the project site, is adjacent to existing agricultural land outside the City limits. The proposed project would not preclude the agricultural use of the land located adjacent to the north.
Policy VIII.C.2.	The City shall promote the creation of well-defined residential neighborhoods in newly-developing areas. Each of these neighborhoods should have a clear focal point, such as a park, school, or other open space and community facility, and should be designed to promote pedestrian convenience. To this end, the City shall encourage the use of existing Winters' neighborhoods, including the grid street system, as models for the planning and design of new residential neighborhoods.	The proposed project would include 6.9 acres of park uses, which would serve as a clear focal point for a well-defined residential area. The proposed project would include sidewalks along all internal residential roadways, which would promote pedestrian convenience.
Policy VIII.D.7.	Lighting in new development, including street lighting, should be designed, installed, and maintained to minimize excess light spillage, unnecessary brightness and glare, and degradation of night sky clarity.	Mitigation Measure 4.1-2 would require the project applicant to submit a lighting plan for the project to the City of Winters Community Development Department for review and approval, demonstrating that proposed lighting is Dark-Sky compliant as specified by the International Dark-Sky Association. The lighting plan shall include, but not necessarily be limited to, the following provisions: • Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties; • Place and shield or screen flood and area lighting needed for construction activities and/or security so as not to disturb adjacent residential areas and passing motorists; • For public lighting, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) or that blink or flash; • Use appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage to prevent light and glare from adversely affecting motorists on nearby roadways.

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Table 4.6-8
City of Winters General Plan Policy Discussion

Policy	Project Consistency
	Implementation of Mitigation Measure 4.1-2 would ensure that lighting in new development, including street lighting, would be designed, installed, and maintained to minimize excess light spillage, unnecessary brightness and glare, and degradation of night sky clarity.

4.7 Noise

4.7 NOISE

4.7.1 INTRODUCTION

The Noise chapter of the EIR describes the existing noise environment in the project vicinity, and identifies potential impacts and mitigation measures related to noise and vibration associated with construction and operation of the proposed project. The method by which the potential impacts are analyzed is discussed, followed by the identification of potential impacts and the recommended mitigation measures designed to reduce significant noise and vibration impacts to less-than-significant levels, if required. The Noise chapter is primarily based on the Environmental Noise & Vibration Assessment (Noise Assessment) prepared for the proposed project by Bollard Acoustical Consultants, Inc. (BAC) (see Appendix J of this EIR).[1] Other sources of information used in this chapter include the City of Winters General Plan,[2] and the City of Winters General Plan EIR.[3]

4.7.2 EXISTING ENVIRONMENTAL SETTING

The Existing Environmental Setting section provides background information on noise and vibration, a discussion of acoustical terminology and the effects of noise on people, existing sensitive receptors in the project vicinity, existing sources and noise levels in the project vicinity, and groundborne vibration.

Fundamentals of Noise

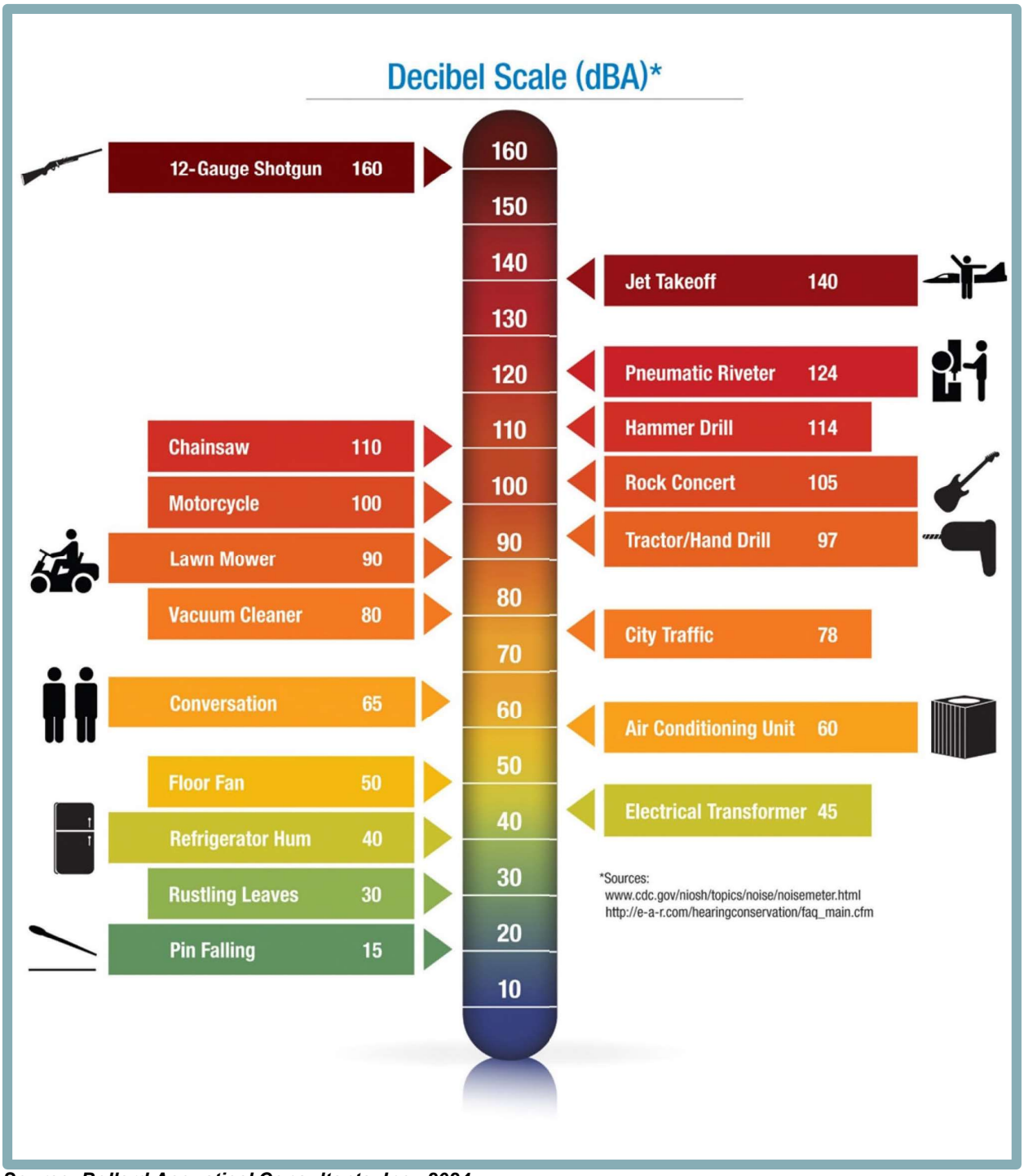
Decibels (dB) are logarithmic units that compare the wide range of sound intensities to which the human ear is sensitive. The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the typical range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by filtering the frequency response of a sound level meter by means of the standardized A-weighting network. A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and the use of A-weighted sound level, expressed as dBA, has become the standard tool of environmental noise assessment. Noise levels associated with common noise sources are provided in Figure 4.7-1.

Several time-averaged scales represent noise environments and consequences of human activities. Community Noise Equivalent Level (CNEL), which can be used to compare the noise level of neighborhoods, is the weighted average noise level over time, presented in dB. Community noise is also commonly described in terms of the ambient noise level, which is defined as the overall noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}). The L_{eq} is the foundation of the day-night average noise descriptor (L_{dn} or DNL), and represents a correlation with community response to noise.

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1 Bollard Acoustical Consultants, Inc. *Environmental Noise & Vibration Assessment, Farmstead Mixed-Use Subdivision Winters, California*. June 19, 2024.
2 City of Winters. *The City of Winters General Plan Policy Document.* Adopted May 19, 1992.
3 City of Winters. *City of Winters General Plan Final Environmental Impact Report.* Certified May 1992.

Figure 4.7-1
Noise Levels Associated with Common Noise Sources



Source: Bollard Acoustical Consultants, Inc., 2024.

The L_{dn} is based on the average noise level over a 24-hour period, with an additional 10 dB weight applied to noise that occurs during nighttime hours (10:00 PM to 7:00 AM). The 10 dB nighttime penalty is applied to account for the assumption that people are more sensitive to nighttime noise exposures as compared to daytime noise exposures. The noise level which is not to be exceeded continuously during any five-minute period of any hour is identified as L_8. Finally, the highest root-mean-square (RMS) sound level measured over a given period of time is expressed as L_{max}.

Stationary sources of noise, including construction equipment, attenuate at a rate of 6.0 to 7.5 dB per doubling of distance from the source depending on ground absorption. Soft sites attenuate at 7.5 dB per doubling of distance, as such sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. Hard sites have reflective surfaces (e.g., parking lots or smooth bodies of water) and, therefore, have less attenuation (6.0 dB per doubling of distance). Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, increase the efficacy of noise attenuation that occurs by distance alone.

Existing Sensitive Receptors

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise, because intrusive noise can be disruptive to such activities. Sensitivity to ambient noise levels is also related to the amount of noise exposure (in terms of both exposure time and shielding from noise sources). Noise sensitive land uses typically include residences, schools, child care centers, hospitals, long-term health care facilities, convalescent centers, retirement homes, and recreation areas.

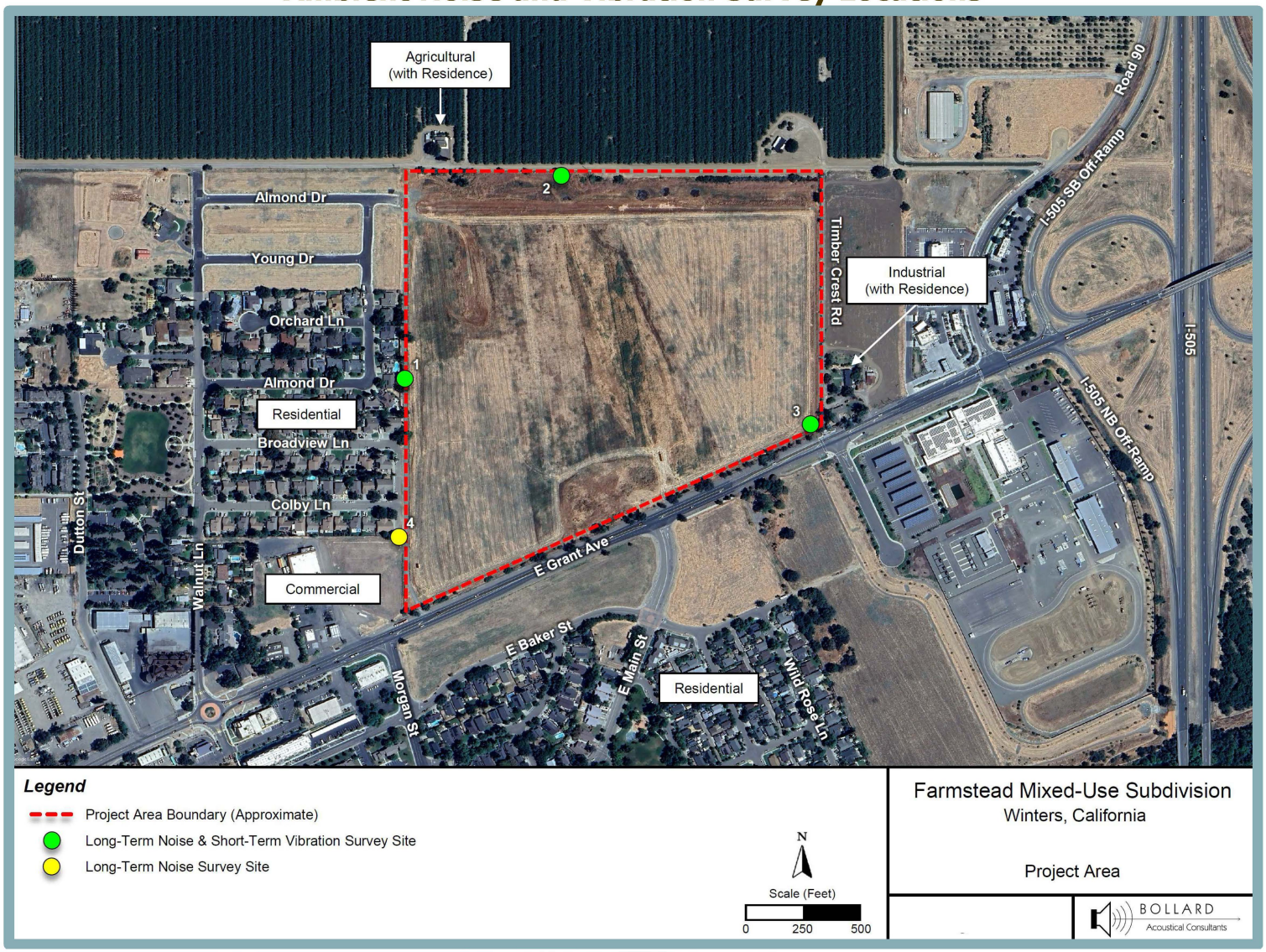
The existing noise-sensitive land uses in the project vicinity consist of residential uses. More specifically, the nearest existing noise-sensitive use from where on-site construction activities would occur is located approximately 50 feet to the west of the project site. Existing commercial, industrial, and agricultural uses are also located within the project vicinity; however, such uses are typically not considered to be noise-sensitive, but, rather, noise-generating.

Existing Ambient Noise Environment

The existing ambient noise environment at the project site is defined primarily by noise from traffic on State Route (SR) 128, also known as East Grant Avenue, and distant traffic on Interstate 505 (I-505).

To quantify existing ambient noise levels within the project area, BAC conducted long-term (48-hour) ambient noise level measurements at four locations from September 22 to September 23, 2021. The equipment and approach used to evaluate existing noise levels are discussed in the Method of Analysis section of this chapter. The long-term noise survey locations are shown on Figure 4.7-2. Site 1 was specifically selected to capture the ambient noise level environment along the west end of the project site adjacent to the existing residential neighborhood. Site 2 was specifically selected to be representative of the ambient noise level environment along the north end of the project site, including at the existing residence constructed on the agricultural land to the north of the project site. Site 3 was specifically selected to be representative of the ambient noise level environment at the east end of the project site near SR 128, including at the residence constructed on industrial land to the east of the project site.

Figure 4.7-2
Ambient Noise and Vibration Survey Locations



Site 4 was specifically selected to be representative of the existing ambient noise level environment at the southwest end of the project site, as well as for the closest existing residential uses to the south and southwest the project site. The results of the long-term ambient noise survey are summarized in Table 4.7-1. As shown in the table, DNL, L_{eq}, and L_{max} noise levels were generally consistent at each individual survey site throughout the monitoring period, with the values at each site fluctuating over a small range during the two days.

Table 4.7-1
Long-Term Ambient Noise Survey Results[1]

Survey Location[2]	Date	DNL	Average Measured Hourly Noise Levels (dBA)[3]			
			Daytime		Nighttime	
			L_{eq}	L_{max}	L_{eq}	L_{max}
Site 1: Western project property boundary adjacent to residences	9/22/21	55	47	65	49	60
	9/23/21	54	47	63	47	58
Site 2: Northern project property boundary near residence	9/22/21	56	50	63	49	60
	9/23/21	54	49	66	47	59
Site 3: Eastern project boundary near residence along SR 128	9/22/21	71	68	85	63	78
	9/23/21	70	68	85	63	78
Site 4: Southwest project boundary near residences and commercial uses	9/22/21	59	53	67	52	64
	9/23/21	58	52	66	51	63

[1] Detailed summaries of the noise monitoring results are provided in Appendices C and D of the Noise Assessment.
[2] Long-term ambient noise monitoring locations are identified on Figure 4.7-2.
[3] Daytime hours: 7:00 AM to 10:00 PM | Nighttime hours: 10:00 PM to 7:00 AM.

Source: Bollard Acoustical Consultants, Inc., 2024.

Existing Traffic Noise Levels

The Federal Highway Administration (FHWA) Traffic Noise Model (FHWA-RD-77-108) was used to quantify existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The FHWA Model was also used to quantify the distances to the 60, 65 and 70 dB DNL traffic noise contours for these roadways. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values. The existing traffic noise levels at the distances representing the nearest noise-sensitive land uses to the project area roadways and distances from the centerlines of selected roadways to the 60 dB, 65 dB and 70 dB DNL contours are summarized in Table 4.7-2.

The approach used to evaluate existing traffic noise levels is discussed in the Method of Analysis section of this chapter. It should be noted that the FHWA Model predictions presented in Table 4.7-2 are based on inputs that include weekday peak hour traffic volumes, day/night, and truck type percentages (e.g., medium and heavy trucks), vehicle speed, and distance from roadway centerlines. The FHWA Model does not account for non-traffic ambient noise sources such as nearby wildlife (e.g., birds chipping) or other anthropogenic noise sources within an area (e.g., distant traffic from other roadways, recreational activities, commercial or industrial operations, etc.).

Table 4.7-2
Existing Traffic Noise Levels at Nearest Receptors and Distances to DNL Contours

#	Roadway	Segment	DNL at Nearest Existing Sensitive Receptor	Distance to Contour (Feet)		
				70 dB DNL	65 dB DNL	60 dB DNL
1	SR 128	West of Railroad Avenue	60	22	47	102
2	SR 128	Railroad Avenue to Dutton Street	59	27	58	125
3	SR 128	Dutton Street to Walnut Lane	56	27	59	126
4	SR 128	Walnut Lane to Morgan Street	59	26	57	122
5	SR 128	Morgan Street to Project Street A	56	43	93	201
6	SR 128	Project Street A to Farmstead Driveway W	56	43	93	201
7	SR 128	Farmstead Driveway W to East Main Street	56	43	93	201
8	SR 128	East Main Street to Farmstead Driveway E	53	45	97	209
9	SR 128	Farmstead Driveway E to Timbercrest Road	59	45	97	209
10	SR 128	Timbercrest Road to County Road (CR) 90	65	45	97	210
11	SR 128	CR 90 to Interstate-505 (I-505) Southbound Ramps	53	45	98	210
12	SR 128	I-505 Southbound Ramps to I-505 Northbound Ramps	49	38	83	179
13	SR 128	East of I-505 Northbound Ramps	64	31	66	143
14	Railroad Avenue	North of SR 128	59	19	40	86
15	Railroad Avenue	South of SR 128	56	12	26	55
16	Railroad Avenue	North of SR 128	47	3	6	14
17	Dutton Street	North of SR 128	48	4	9	19
18	Walnut Lane	South of SR 128	37	2	4	10
19	Walnut Lane	North of SR 128	--	--	--	--
20	Morgan Street	South of SR 128	51	4	9	20
21	Morgan Street	South of SR 128	50	4	8	17
22	East Main Street	North of SR 128	25	0	0	1
23	PG&E Way	South of SR 128	33	1	2	3
24	CR 90	North of SR 128	48	8	18	38
25	CR 90	South of SR 128	--	--	--	--

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Table 4.7-2
Existing Traffic Noise Levels at Nearest Receptors and Distances to DNL Contours

#	Roadway	Segment	DNL at Nearest Existing Sensitive Receptor	Distance to Contour (Feet)		
				70 dB DNL	65 dB DNL	60 dB DNL
26	I-505 Southbound Ramps	South of SR 128	45	20	42	91
27	I-505 Northbound Ramps	North of SR 128	46	26	55	119

Source: Bollard Acoustical Consultants, Inc., 2024.

Fundamentals of Vibration

Vibration is similar to noise in that both involve a source, a transmission path, and a receiver. However, while noise is generally considered to be pressure waves transmitted through air, vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of an amplitude and frequency. A person's response to vibration depends on their individual sensitivity, as well as the amplitude and frequency of the source.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of velocity in inches per second (in/sec) peak particle velocity (PPV) or root-mean-square (VdB, RMS). Standards pertaining to perception, as well as damage to structures, have been developed for vibration in terms of PPV and RMS velocities. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate. Differences in subsurface geologic conditions and distance from the source of vibration result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes decrease with increasing distance.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases. According to the California Department of Transportation (Caltrans) Transportation and Construction Vibration Guidance Manual, operation of construction equipment and construction techniques generate ground vibration. Roadway traffic can also be a source of such vibration. At high enough amplitudes, ground vibration has the potential to damage structures and/or cause cosmetic damage. However, traffic rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.

Existing Ambient Vibration Environment

During a BAC site visit conducted on September 24, 2021, vibration levels were below the threshold of perception within the project vicinity. Nonetheless, to quantify existing vibration levels in the project area, BAC conducted short-term (10-minute) vibration measurements at three survey locations. The results are summarized in Table 4.7-3 and indicate that measured maximum vibration levels within the project area ranged from less than 0.001 to 0.027 PPV in/sec.

Table 4.7-3
Short-Term Ambient Vibration Survey Results

Survey Location	Time	Measured Maximum Vibration Level, PPV (in/sec)
Site 1: Western project property boundary adjacent to residences	10:17 AM	<0.001
Site 2: Northern project property boundary near residence	9:57 AM	<0.001
Site 3: Eastern project boundary along SR 128	9:34 AM	0.027

Source: Bollard Acoustical Consultants, Inc., 2024.

4.7.3 REGULATORY CONTEXT

In order to limit exposure to physically and/or psychologically damaging noise levels, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. Applicable federal laws or regulations pertaining to noise or vibration that would directly apply to the proposed project do not exist. The following provides a general overview of the existing State and local regulations that are relevant to the proposed project.

State Regulations

The following are the State environmental laws and policies relevant to noise and vibration.

California Building Code

The California Building Code (Title 24, Part 2 of the California Code of Regulations [CCR]) establishes uniform minimum noise insulation performance standards to protect persons within new buildings that house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings.

Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also requires that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

Local Regulations

The following are the local environmental goals and policies relevant to noise and vibration.

City of Winters General Plan

The relevant goals and policies from the City of Winters General Plan related to noise and vibration are presented below.

Goal VII.E To protect city residents from the harmful and undesirable effects of excessive noise.

Policy VII.E.1 The City shall evaluate the compatibility of various land uses with nearby noise sources based on the standards in Table II-3 (see Table 4.7-4).

Table 4.7-4
Land Use Compatibility Standards

Land Use Category	60 dBA or Less	60-65 dBA	65-70 dBA	70-75 dBA
Residential Single and multiple family dwellings, including mobile homes, duplexes, apartments, condominiums, hotels, and motels	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Outdoor Public Facilities Neighborhood parks, playgrounds (including school playgrounds), picnic areas, amphitheaters, golf courses, riding stables and trails, water recreation, cemeteries	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Public Buildings School buildings, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, sports arenas	Clearly Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable
Commercial Office buildings, retail, business and professional facilities	Clearly Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable
Industrial Manufacturing, utilities, and agriculture facilities	Clearly Acceptable	Clearly Acceptable	Normally Acceptable	Conditionally Acceptable

Clearly Acceptable - The activities associated with the specified uses can be carried out with virtually no interference from noise.

Normally Acceptable - Little interference with outdoor activities is expected. Conventional structures will insure that interior Ldn values are compatible with indoor activities.

Conditionally Acceptable - The indicated noise levels will cause moderate interference with outdoor activities, and with indoor activities when windows are open. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made. Noise reduction features should be included in the project design which upgrade the environment to the "Normally Acceptable" category over a substantial portion of the project site.

Normally Unacceptable - Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion on indoor activities can be mitigated with special noise insulating construction. New construction or development should be generally discouraged. If construction or development does proceed, noise mitigation measures should be required to upgrade the acoustic environment to approach the "Normally Acceptable" category with respect to exterior noise, and to insure that interior noise levels comply with the state noise insulation standards.

Clearly Unacceptable - Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation may not be practical in many cases, or may involve high noise barriers visually incompatible with a suburban area. New construction or development should generally not be undertaken.

Source: City of Winters General Plan [Table II-3], 1992.

Policy VII.E.2 The City shall require new residential development to comply with applicable provisions of the *California State Noise Insulation Standards (California Code of Regulations, Title 24, Part 2, Appendix, Chapter 35)* and the *Uniform Building Code (Appendix Chapter 35)*, and updates thereof. These provisions include, but are not limited to, the following standards:

a) L_{dn} values due to exterior noise sources shall not exceed 45 dBA inside habitable rooms of new multi-family dwellings (apartments, condominiums, hotels, motels, etc.).

b) Assemblies dividing units within multi-family dwellings shall have laboratory certified STC ratings of 50 or more (NIC 45 or more if field tested). In addition, floor/ceiling assemblies shall have laboratory certified IIC ratings of 50 or more (45 if field tested).

Policy VII.E.3 L_{dn} values above 45 dBA due to exterior noise sources shall be prohibited inside habitable rooms of all new dwellings.

Policy VII.E.4 Non-transportation noise sources which are potentially intrusive shall be evaluated in terms of the noise level limits in Tables II-4 (see Table 4.7-5) and II-5 (see Table 4.7-6). In applying these limits, the corrections in Table II-6 (see Table 4.7-7) shall be added to account for the nature of the noise.

Table 4.7-5
Exterior Noise Level Limits

Use Zone	Exterior Limit in dBA	
	Daytime (7:00 AM-10:00 PM)	Nighttime (10:00 PM-7:00 AM)
Rural (OS)	50	40
Residential (R-1, R-2, R-3, R-4)	50	45
Parks and Recreation (P-R)	50	45
Commercial (C-1, C-2, NC, CH, CS)	63	45
Manufacturing/Industrial (M-1, M-2, PI)	73	70

These limits on intrusive noise are to be applied at any point within the boundaries of a property zoned as indicated.

Each limit is the noise level which is not to be exceeded continuously during any five minute period. If the noise level varies above and below the limit, the limit shall not be exceeded during more than one time interval in any five minute period. Noise levels higher than the applicable limit plus 15 dBA are prohibited at all times.

Source: City of Winters General Plan [Table II-4], 1992.

Table 4.7-6
Interior Noise Level Limits

Use Zone	Interior Limit in dBA	
	Daytime (7:00 AM-10:00 PM)	Nighttime (10:00 PM-7:00 AM)
Residential (R-1, R-2, R-3, R-4)	45	35

These limits on intrusive noise are to be applied at any point within the boundaries of a property zoned as indicated.

Each limit is the noise level which is not to be exceeded continuously during any five minute period. If the noise level varies above and below the limit, the limit shall not be exceeded during more than one time interval in any five minute period. Noise levels higher than the applicable limit plus 15 dBA are prohibited at all times.

Source: City of Winters General Plan [Table II-5], 1992.

Table 4.7-7
Corrections to Noise Levels Due to Potentially Intrusive Non-Transportation Noise Sources

Type of Correction	Circumstances Under Which the Correction is Applicable	Correction to be Added to the Measured or Predicted Noise Level Due to a Potential Intrusive Noise Source (dBA)
Seasonality	Summer (or year-round operation)	0
	Winter only (or windows always closed)	-5
Character of Sound	No tonal, impulsive, or music/speech	0
	Tonal components present	+5
	Impulsive noise	+5
	Music or speech	+5
Exposure	No prior experience with subject noise	+5
	Some previous exposure to subject noise	0
	No previous exposure to subject noise	0
	Considerable previous exposure to subject noise	-5
	Source is very necessary, source is temporary	-10

Source: City of Winters General Plan [Table II-6], 1992.

Policy VII.E.6 Any project that would cause existing traffic-related noise levels in existing residential areas to increase more than 3dB shall be required to evaluate the feasibility of noise mitigation measures.

Policy VII.E.7 The City may also require preparation of a noise study when L_{dn} standards are met or inapplicable, but 1) a potentially intrusive noise source is proposed near a noise sensitive area, or 2) a noise sensitive land use is proposed near a potentially intrusive noise source.

Policy VII.E.8 Required noise studies shall be the responsibility of the project applicant, and shall be consistent with the state guidelines for

noise study reports. Such studies shall be performed by a qualified consultant and shall include the following:

a) A summary of noise data collected, and/or descriptions of the methodologies used to determine existing and expected noise levels and noise descriptors such as L_{eq} or L_{dn}.

b) Figures or maps showing the locations of noise sources and noise sensitive areas.

c) A description of the impacts of existing and future (20 years hence) noise levels on the project and/or impacts due to the project on the surrounding area. The standards in this section of the General Plan Policy Document shall form the basis for impact assessment.

d) Specifications of any noise mitigation measures recommended to ensure compliance with the standards in this General Plan Policy Document.

e) Description of the expected effects of the mitigation measures.

Policy VII.E.11 The City shall encourage development designers to minimize noise levels through such measures as the following:

a) Locating outdoor activity spaces such as yards, patios, and decks in areas where noise levels are low.

b) Locating and orienting buildings to place noise sensitive indoor spaces such as living rooms and bedrooms in areas with low noise levels.

c) Locating relatively non-noise sensitive structures such as commercial buildings to shield noise sensitive areas such as residences and care facilities from noise sources.

d) Using berms, walls, and setbacks to shield noise sensitive areas from noise sources. Walls shall only be used as a last resort.

e) Provide appropriate muffling devices or enclosures for new noise sources located near noise sensitive areas.

City of Winters Municipal Code

The City has adopted a Noise Ordinance, set forth in Municipal Code Section 8.20.040 establishes general noise regulations and factors. The specific language of Section 8.20.040 is provided below:

> Notwithstanding any other provision of this chapter, and in addition thereto, it shall be unlawful for any person to willfully or negligently make or continue, or cause to be made or continued, any loud, unnecessary, or unusual noise which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.
>
> The factors which shall be considered in determining whether a violation of the provisions of this chapter exists shall include, but not be limited to, the following:
>
> A. The sound level of the objectionable noise;
> B. The sound level of the ambient noise;
> C. The proximity of the noise to residential sleeping facilities;
> D. The nature and zoning of the area within which the noise emanates, and the area affected by the noise;
> E. The time of day or night the noise occurs;
> F. Whether the noise is continuous, recurrent, or intermittent. (Ord. 2016-08 § 3 (part): Ord. 89-04 (part): prior code § 6-7.07. Formerly 8.20.060)

Municipal Code Section 8.20.060 establishes non-transportation noise level limits for noise-sensitive receptors (see Table 4.7-8). The specific language of Section 8.20.060 is provided below:

> A. Maximum Permissible Sound Levels by receiving Land Use
>
> 1. The noise limits for the various categories of land use identified by the enforcement department representative as presented in Table 7-1 shall, unless otherwise specifically indicated, apply to all such property within a designated zone. No person shall allow creation of any noise which exceeds the standards.
>
> 2. If a measurement location is on a boundary between two different zones, the noise level applicable to the quieter noise zone plus five dBA shall apply.
>
> B. Correction for Character of Sound. In the event the alleged offensive noise, as judged by the enforcement department representative, contains a steady, audible tone such as whine, screech, or hum, or is a repetitive noise such as hammering or riveting, or contains music or speech conveying informational content, the standard noise limits set forth in Table 7-1 shall be reduced by five dBA.

Pursuant to Municipal Code Section 8.20.070 (Prohibited actions), operating any power tools or equipment used in construction, drilling, repair, alteration, demolition work, or property maintenance between weekday and Saturday hours of 7:00 PM and 7:00 AM, or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial property line, is prohibited. Domestic power tools or equipment may be operated to 10:00 PM provided the maximum noise level across the residential property line shall not exceed seventy (70) dBA.

Table 4.7-8
Noise Level Limits

Noise level in dBA not to be exceeded continuously during any five-minute period or, if the noise level varies above and below the limit, for more than one time interval during any five-minute period.

Type of Zone	Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
Rural Residential (R-R)/Open Space (O-S)	50	40
Residential (R-1, R-2, R-3, R-4)	55	50
Parks and Recreation (P-R)[1]	60	45
Commercial (C-1, C-2, D-A, D-B, O-F, C-H)	63	45
Manufacturing/Industrial (M-1, M-2, B-P)	73	70

[1] Park and recreation noise limits are based on 6:00 AM to 10:00 PM.

Source: City of Winters Municipal Code, Section 8.20.060, Table 7-1.

With respect to vibration, Section 8.20.070 prohibits operating or permitting the operation of any device that creates a vibration which is above the vibration perception threshold of an individual at or beyond the real property boundary of the source if on private property or at 150 feet from the source if on a public space or public right-of-way.

4.7.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to noise and vibration. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the proposed project would result in any of the following:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; or
- Generation of excessive groundborne vibration or groundborne noise levels.

Issues Not Discussed Further

The Initial Study prepared for the proposed project (see Appendix A) determined that development of the proposed project would result in no impact related to the following:

- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

For the reasons cited in the Initial Study (Section XIII, Noise), the potential impacts associated with the above are not analyzed further in this EIR.

Summary of Applicable Noise Standards

Applicable noise level standards from the City of Winters General Plan and the City of Winters Municipal Code are summarized below.

Construction Noise Criteria

The City of Winters General Plan or Municipal Code does not contain numeric thresholds that would be specifically applicable to construction noise associated with the proposed project. However, Municipal Code Section 8.20.070.B.4 prohibits construction/demolition activities from occurring between weekday and Saturday hours of 7:00 PM to 7:00 AM, or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial property line.

According to the Noise Assessment, in terms of determining the temporary noise increase due to project construction equipment at existing sensitive receptors in the vicinity, an impact would occur if such activities would noticeably increase ambient noise levels above background levels at the receptors. The threshold of perception of the human ear is approximately 3.0 to 5.0 dB – a 5.0 dB change is considered to be clearly noticeable. A noticeable increase in ambient noise levels at sensitive receptors is assumed to occur where construction activities would result in an increase by 5.0 dB or more over existing ambient noise levels.

Transportation Noise

Unlike the significant noise level increase criteria of 5.0 dB used herein for construction noise and non-transportation noise, the City of Winters General Plan includes a numerical significant criteria for transportation noise. Pursuant to General Plan Policy VII.E.6, projects that would cause existing traffic-related noise levels in existing residential areas to increase more than 3.0 dB shall be required to evaluate the feasibility of noise mitigation measures. Thus, the applicable noise level standard for transportation noise is an increase of 3.0 dB above existing ambient levels.

Non-Transportation Noise

The City of Winters General Plan establishes exterior and interior noise level limits for residential uses affected by non-transportation noise sources, shown above in Table 4.7-5 and Table 4.7-6, respectively. Each noise level limit is defined as L_8, which is the noise level which is not to be exceeded continuously during any five-minute period of any hour. The existing sensitive receptors consist of residential uses; thus, the applicable exterior noise level standard is 50 dBA during daytime hours (7:00 AM to 10:00 PM) and 45 dBA during nighttime hours (10:00 PM to 7:00 AM). The interior noise level standard is 45 dBA during daytime hours (7:00 AM to 10:00 PM) and 35 dBA during nighttime hours (10:00 PM to 7:00 AM).

Similar as the Construction Noise Criteria, in terms of determining the noise increase due to on-site activities at existing sensitive receptors, an impact would occur if such activities would noticeably increase ambient noise levels above background levels at the receptors. A noticeable increase in ambient noise levels at sensitive receptors is assumed to occur where on-site activities would result in an increase by 5.0 dB or more over existing ambient noise levels.

Vibration

Municipal Code Section 8.20.70 prohibits operating or permitting the operation of any device that creates a vibration which is above the vibration perception threshold of an individual at or beyond the real property boundary of the source if on private property or at 150 feet from the source if on a public space or public right-of-way. According to the 2020 Caltrans Transportation and

Construction Vibration Guidance Manual, the threshold of human perception to vibration is established as 0.1 in/sec PPV.[4] Therefore, a significant impact would be identified if project construction activities or proposed on-site operations would expose sensitive receptors to groundborne vibration levels exceeding 0.1 in/sec PPV.

Method of Analysis

Below are descriptions of the methodologies used in the Noise Assessment (see Appendix J of this EIR) to measure background and ambient noise and estimate future traffic noise, construction noise, and vibration associated with the project. Further modeling details and calculations are provided in Appendix J of this EIR. The results of the noise and vibration impact analyses were compared to the standards of significance discussed above in order to determine the associated level of impact.

Existing Ambient Noise Levels

To quantify existing ambient noise levels within the project site, BAC conducted long-term (48-hour) ambient noise level measurements at four locations (see Figure 4.7-2) from September 22 to September 23, 2021. Larson Davis Laboratories (LDL) Model 820 and 831 precision integrating sound level meters were used to complete the long-term noise level survey. The meters were calibrated immediately before use with an LDL Model CA200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all specifications of the American National Standards Institute requirements for Type 1 sound level meters (ANSI S1.4). The results of the long-term ambient noise survey are shown numerically and graphically in Appendices C and D of the Noise Assessment, respectively, and are summarized in Table 4.7-1 above.

Transportation Noise

The FHWA-RD-77-108 traffic noise model was used to quantify existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The FHWA Model was also used to quantify the distances to the 60, 65 and 70 dB DNL traffic noise contours for the selected roadways. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values. Existing traffic data in the form of AM and PM peak hour intersection turning movements were obtained from Fehr & Peers, the transportation consultant for the proposed project. The turning movement data were converted to Average Daily Traffic (ADT) segment volumes by applying a factor of 5 to the sum of AM and PM peak hour conditions. Other inputs were obtained from BAC observations and noise measurement data. The existing traffic noise levels at the distances representing the nearest noise-sensitive land uses to the project area roadways and distances from the centerlines of selected roadways to the 60 dB, 65 dB and 70 dB DNL contours are summarized above in Table 4.7-2. A complete listing of the FWHA Model inputs for existing conditions are provided in Appendix E of the Noise Assessment.

Operational Noise

The following discussions include the methods BAC used to quantify noise levels associated with each component of the proposed project.

[4] California Department of Transportation. *Transportation and Construction Vibration Guidance Manual*. April 2020.

Commercial Parking Area

Specific parking lot noise level measurements were used to determine potential noise exposure due to commercial parking lot activities. Specifically, a series of individual noise measurements were conducted of multiple vehicle types arriving and departing a parking area, including engines starting and stopping, car doors opening and closing, and persons conversing as they entered and exited the vehicles. The results of the measurements revealed that individual parking lot movements generated mean noise levels of 65 dB Sound Exposure Level (SEL) at a reference distance of 50 feet. For a conservative assessment of commercial component parking area noise generation, individual parking areas (of which there could be more) within each commercial lot were assumed to accommodate up to 200 vehicles. A parking area was also assumed to fill or empty during any given peak hour of business operations. However, during hours of operation, it is likely that parking area activity would be more spread out. Hourly parking area noise exposure was determined using the following equation:

$$\text{Peak Hour Leq} = 65+10*\log(N) - 35.6$$

Where 65 is the SEL for a single automobile parking operation at a reference distance of 50 feet, N is the number of parking area operations in a peak hour, and 35.6 is 10 times the logarithm of the number of seconds in an hour. Using the parking lot noise measurement data above, peak hour noise exposure from a commercial parking lot having 200 vehicle stalls computes to approximately 52 dB L_{eq} at a distance of 50 feet from the effective noise center of the area. BAC file data indicate that measured L_8 parking activity noise levels are approximately 3 dB higher than measured L_{eq} noise levels. Therefore, the resulting noise exposure from a commercial parking lot having 200 vehicle stalls computes to approximately 55 dB L_8 at a distance of 50 feet from the effective noise center of the area. Using the information provided above, and assuming standard spherical spreading loss (-6.0 dB per doubling of distance), worst-case project commercial component parking area noise exposure at the property lines of the nearest existing noise-sensitive uses (residential) was calculated.

Commercial Delivery Truck

One heavy truck and three medium duty truck deliveries are assumed to occur within a commercial lot during a busy hour. Truck deliveries are expected to be relatively brief in duration. BAC file data indicates that heavy truck deliveries produce an average SEL of approximately 85 dB at a distance of 100 feet, with medium duty trucks (including sidestep vans), producing a SEL of approximately 76 dB. Based on such noise levels, and one semi-trailer delivery and three medium duty truck deliveries during any given hour, the resulting noise levels are calculated to be 51 dB L_{eq} and 74 dB L_{max} at a distance of 100 feet. The L_8 noise level associated with the combined deliveries is calculated to be approximately 3 dB higher than the calculated average L_{eq} noise level.

Based on the operations assumptions and associated calculated reference noise levels above, and assuming standard spherical spreading loss (-6.0 dB per doubling of distance), project commercial component delivery truck activity noise exposure was calculated at the property line of the nearest existing noise-sensitive uses.

Mechanical Equipment

To estimate potential noise exposure due to rooftop heating, ventilation, and air-conditioning (HVAC) units, BAC used reference data collected for previous studies. According to the Noise Assessment, rooftop HVAC units frequently generate a noise level of approximately 45 dB L_{eq} at

a reference distance of 100 feet from the building facade, including shielding by the building parapet (estimated to provide approximately 10 dB of noise level reduction). The associated L_8 noise level from HVAC equipment operations, a steady-state noise source, would be equivalent to the average L_{eq} noise level.

Park Activity

According to BAC file data, parks consisting of active uses (playing fields/playgrounds) have noise levels of approximately 60 dB L_{eq} and 70 dB L_{max} at a distance of 50 feet. The L_8 noise level associated with park activities would be approximately 3 dB higher than the measured average L_{eq} noise level. Assuming standard spherical spreading loss (-6.0 dB per doubling of distance), project park component activity noise exposure was calculated at the property lines of the nearest existing noise-sensitive uses.

Construction Noise and Vibration

Construction noise and vibration was analyzed using data compiled for various pieces of construction equipment at representative distances of 50 and 25 feet, respectively. Construction noise is discussed relative to the 5.0 dB increase criteria.

BAC conducted short-term (10-minute) vibration measurements at three survey locations, identified on Figure 4.7-2, on September 24, 2021. An LDL Model LxT precision integrating sound level meter equipped with a vibration transducer was used to complete the measurements. The results are summarized above in Table 4.7-3.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the baseline and standards of significance identified above.

4.7-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below, the impact is *less than significant.*

During project construction, heavy equipment would be used for grading, excavation, paving, and structure construction, all of which would temporarily increase ambient noise levels when in use. Noise levels would vary depending on the type and operation of equipment and how well the equipment is maintained. Noise exposure at any single point outside the project site would also vary depending on the distance from the source. The nearest sensitive receptor from where on-site construction activities would occur are residences located approximately 50 feet to the west of the project site.

Table 4.7-9 includes the range of L_{max} noise levels for equipment commonly used in general residential construction projects at full-power operation at a distance of 50 feet. It should be noted that not all of the listed equipment would be required for the proposed project construction. Table 4.7-9 includes predicted maximum equipment noise levels at the nearest existing residential uses, which assume a standard spherical spreading loss of 6.0 dB per doubling of distance.

Table 4.7-9
Noise Levels for Typical Residential Construction Equipment

Equipment Description	Maximum Noise Level at 50 Feet (dBA)	Projected Maximum Noise Level at Receiver, L_{max} (dBA)			
		North Residence – 100 feet	East Residence – 100 feet	South Residence – 400 feet	West Residence – 70 feet
Air Compressor	80	76	74	62	77
Backhoe	80	76	74	62	77
Ballast Equalizer	82	78	76	64	79
Ballast Tamper	83	79	77	65	80
Compactor	82	78	76	64	79
Concrete Mixer	85	81	79	67	82
Concrete Pump	82	78	76	64	79
Concrete Vibrator	76	72	70	58	73
Crane, Mobile	83	79	77	65	80
Dozer	85	81	79	67	82
Excavator	85	81	79	67	82
Generator	82	78	76	64	79
Grader	85	81	79	67	82
Impact Wrench	85	81	79	67	82
Loader	80	76	74	62	77
Paver	85	81	79	67	82
Pneumatic Tool	85	81	79	67	82
Pump	77	73	71	59	74
Saw	76	72	70	58	73
Scarifier	83	79	77	65	80
Scraper	85	81	79	67	82
Shovel	82	78	76	64	79
Spike Driver	77	73	71	59	74
Tie Cutter	84	80	78	66	81
Tie Handler	80	76	74	62	77
Tie Inserter	85	81	79	67	82
Truck	84	80	78	66	81
Low		**72**	**70**	**58**	**73**
High		**81**	**79**	**67**	**82**
Average		**79**	**76**	**64**	**79**

Source: Bollard Acoustical Consultants, Inc., 2024.

The City of Winters General Plan and Municipal Code do not contain numeric thresholds that would be specifically applicable to project construction noise. However, as discussed above, Municipal Code Section 8.20.070.B.4 prohibits construction/demolition activities from occurring between weekday and Saturday hours of 7:00 PM to 7:00 AM or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial property line. It is reasonably assumed for the purpose of this analysis that all onsite noise-generating project construction equipment and activities would occur pursuant to Municipal Code Section 8.20.070.B.4.

Appendix G of the CEQA Guidelines (Section XIII, question 'a') requires a lead agency to determine if a project would result in the generation of a substantial temporary increase in ambient noise levels. In terms of determining the temporary noise increase due to project-related construction activities, an impact would occur if construction activity would noticeably increase ambient noise levels above background levels. The threshold of perception of the human ear is approximately 3.0 to 5.0 dB, and a 5.0 dB change is considered to be clearly noticeable. Therefore, for the purposes of this analysis, a noticeable increase in existing ambient noise levels is assumed to occur when noise levels increase by 5.0 dB or more.

Measurements obtained at the four noise monitoring sites are believed to be generally representative of the ambient noise level environment within the project vicinity (see Table 4.7-1). Based on the noise monitoring results, lower noise levels were measured at monitoring locations farther removed from local major roadways within the area (Sites 1, 2, and 4). Higher noise levels were measured at monitoring locations along the major roadways (Site 3). To determine the temporary noise increases from project-generated construction activities at existing noise-sensitive uses, a baseline of ambient noise conditions at such locations must be established. For the purposes of this analysis, the existing noise-sensitive uses located nearest to the project site (residences located to the west of the project site, further from major roadways) were reasonably assumed to currently experience ambient noise levels similar to those measured at Sites 1 and 4.

The highest measured daytime maximum noise levels at Site 1 ranged from 75 to 77 dB L_{max} (mean of 76 dB L_{max}). The highest measured daytime maximum noise levels at Site 2 ranged from 81 to 84 dB L_{max} (mean of 83 dB L_{max}). The highest measured daytime maximum noise levels at Site 3 ranged from 97 to 99 dB L_{max} (mean of 98 dB L_{max}). Finally, the highest measured daytime maximum noise levels at Site 4 ranged from 82 to 83 dB L_{max} (mean of 83 dB L_{max}).

Using the calculated means of measured daytime maximum noise levels at Sites 1 through 4 stated above, and the calculated average of predicted construction equipment maximum noise levels shown in Table 4.7-9, ambient plus project construction noise level increases were calculated at the closest existing residential uses. Increases in ambient maximum noise levels from project construction activities would range from less than 0.1 to 4.7 dB L_{max} at the closest residential uses. Such an increase would be below the applied increase significance criterion of 5.0 dB.

Additionally, pursuant to Municipal Code Section 8.20.070 all noise-generating project construction activities would be limited to the hours of 7:00 AM and 7:00 PM, Monday through Friday, unless the project applicant obtains a Variance from the City.

Based on the above, worst-case, maximum project construction noise levels associated with construction activities would not result in a significant noise level increase to the nearest receptor. Therefore, the proposed project would not generate a substantial temporary increase in ambient noise levels in the project vicinity in excess of applicable standards, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.7-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below, the impact is *less than significant.*

Noise sources associated with operation of the proposed project would consist of noise from project-generated traffic along roadways in the project vicinity, commercial uses including parking lot movements, commercial deliveries and mechanical equipment, and active activities associated with the park component of the proposed project. The noise generated by each of the aforementioned components could result in impacts to existing noise-sensitive receptors in the project vicinity. Each of the foregoing noise sources are discussed in further detail below.

Traffic Noise at Existing Noise-Sensitive Receptors
Using the methodology described above in the Method of Analysis section, traffic noise levels under existing plus approved projects (EPAP) and EPAP Plus Project conditions were estimated as part of the Noise Assessment and are shown in Table 4.7-10.

The estimated noise levels are provided in terms of DNL at the distances representing the nearest existing noise-sensitive land uses to the project area roadways (i.e., residential). In addition, the table includes an assessment of predicted traffic noise levels relative to the 3.0 dB noise level increase significance criteria, pursuant to General Plan Policy VII.E.6.

As shown in Table 4.7-10, the increase in traffic noise levels attributable to the proposed project under EPAP Plus Project conditions would be below the General Plan increase significance criteria of 3.0 dB. Therefore, the increase in traffic noise levels at existing sensitive receptors due to the proposed project would be considered less than significant.

On-Site Operational Noise at Existing Noise-Sensitive Receptors
The primary on-site noise sources are associated with the proposed commercial and park uses would include parking areas, truck deliveries, HVAC equipment noise, as well as active recreational activities. Each of the foregoing noise sources, as well as potential impacts at the nearest existing noise-sensitive receptors associated with the combined on-site commercial and park noise sources, are discussed further below. For the analyses of on-site noise sources in this chapter, a noticeable increase in ambient noise levels is assumed to occur where noise levels increase by 5.0 dB or more over existing ambient noise levels.

Table 4.7-10
Predicted Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – EPAP vs. EPAP Plus Project Conditions

#	Roadway	Segment	Predicted DBL(dB)			Significance Threshold	Threshold Exceeded?
			EPAP	EPAP+P	Increase		
1	SR 128	West of Railroad Avenue	60.7	60.8	0.1	>3.0	No
2	SR 128	Railroad Avenue to Dutton Street	59.1	59.4	0.3	>3.0	No
3	SR 128	Dutton Street to Walnut Lane	55.9	56.2	0.3	>3.0	No
4	SR 128	Walnut Lane to Morgan Street	59.1	59.3	0.2	>3.0	No
5	SR 128	Morgan Street to Project Street A	56.8	57.1	0.3	>3.0	No
6	SR 128	Project Street A to Farmstead Driveway W	56.8	56.9	0.1	>3.0	No
7	SR 128	Farmstead Driveway W to East Main Street	56.8	56.9	0.1	>3.0	No
8	SR 128	East Main Street to Farmstead Driveway E	53.4	53.8	0.4	>3.0	No
9	SR 128	Farmstead Driveway E to Timbercrest Road	59.1	59.6	0.4	>3.0	No
10	SR 128	Timbercrest Road to County Road (CR) 90	65.4	65.7	0.4	>3.0	No
11	SR 128	CR 90 to Interstate-505 (I-505) Southbound Ramps	53.2	53.5	0.4	>3.0	No
12	SR 128	I-505 Southbound Ramps to I-505 Northbound Ramps	49.3	49.6	0.3	>3.0	No
13	SR 128	East of I-505 Northbound Ramps	64.7	65.0	0.3	>3.0	No
14	Railroad Avenue	North of SR 128	59.6	59.8	0.2	>3.0	No
15	Railroad Avenue	South of SR 128	56.8	56.9	0.1	>3.0	No
16	Railroad Avenue	North of SR 128	48.2	48.2	0.0	>3.0	No
17	Dutton Street	North of SR 128	51.1	50.2	0.0	>3.0	No
18	Walnut Lane	South of SR 128	40.0	40.3	0.2	>3.0	No
19	Walnut Lane	North of SR 128	--	--	--	--	--
20	Morgan Street	South of SR 128	52.5	52.7	0.2	>3.0	No
21	Morgan Street	South of SR 128	51.1	52.1	1.0	>3.0	No
22	East Main Street	North of SR 128	32.0	32.0	0.0	>3.0	No
23	PG&E Way	South of SR 128	43.7	43.7	0.0	>3.0	No
24	CR 90	North of SR 128	48.5	48.7	0.2	>3.0	No
25	CR 90	South of SR 128	--	--	--	--	--
26	I-505 Southbound Ramps	South of SR 128	45.6	46.0	0.4	>3.0	No
27	I-505 Northbound Ramps	North of SR 128	46.0	46.3	0.2	>3.0	No

Source: Bollard Acoustical Consultants, Inc., 2024.

Commercial Parking Noise at Existing Sensitive Uses

Using the methodology described above in the Method of Analysis section, the project site plans, and assuming standard spherical spreading loss of -6.0 dB per doubling of distance, the commercial parking area noise exposure was calculated at the property lines of the nearest existing noise-sensitive uses, which is shown in Table 4.7-11.

Table 4.7-11
Commercial Component Parking Area Noise at Existing Noise-Sensitive Uses

Nearest Noise-Sensitive Use[1]	Nearest Commercial Component[1]	Distance (ft)[2]	Predicted Noise Level, L_8 (dB)[3]	City Exterior Noise Standard, L_8 (dB)	
				Daytime	Nighttime
North - Residential	B1, B2	1,500	26	50	45
East - Residential	B3	1,000	34		
South - Residential	B2, B3	500	35		
West - Residential	B1, B2	600	34		

[1] Locations of existing nearby residential uses and commercial components are shown in Figure 4.7-2 and Figure 3-5 in Chapter 3, Project Description.
[2] Distances scaled from nearest commercial components to residential property lines.
[3] Predicted combined noise level exposure (L_8).

Source: Bollard Acoustical Consultants, Inc., 2024.

As shown in Table 4.7-11, noise level exposure from parking area activities within the commercial components of the development would comply with the applicable City of Winters General Plan daytime and nighttime exterior noise level standards at the nearest existing noise-sensitive residential uses.

Standard residential construction (e.g., stucco siding, STC-27 windows, door weather-stripping, exterior wall insulation, composition plywood roof), typically results in an exterior to interior noise reduction of approximately 25 dB with windows closed and approximately 15 dB with windows open. Given the predicted exterior noise levels provided in Table 4.7-11, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), project commercial parking area noise levels are expected to comply with the General Plan daytime and nighttime interior noise level standards of 45 and 35 dB within the nearest existing residences.

Using the lowest average measured daytime and nighttime noise levels at each monitoring location during the existing ambient noise level surveys, ambient plus project parking area noise level increases were calculated at the closest existing residential uses. Project-generated increases in ambient daytime noise levels are calculated to range from less than 0.1 dB L_8 to 0.2 dB L_8 at the closest existing residential uses to the project site. Additionally, project-generated increases in

ambient nighttime noise levels are calculated to range from less than 0.1 dB L_8 to 0.1 dB L_8 at the closest existing residential uses, below the applied increase significance criteria of 5.0 dB.

Based on the analysis and results presented above, the commercial component parking lot noise levels would comply with the City of Winters daytime and nighttime exterior and interior noise level limits at the nearest existing noise-sensitive uses. Additionally, the commercial parking activities would not result in a significant increase in ambient noise levels at existing sensitive receptors. Therefore, noise exposure from commercial parking areas at nearby existing residences would result in a less-than-significant impact.

Commercial Delivery Truck Noise at Existing Sensitive Uses

Portions of the businesses proposed within the commercial components of the development are expected to receive deliveries of product from heavy and/or medium-duty trucks. Such uses would typically generate light semi-trailer truck activity once initial store stocking has been completed. BAC file data for uses such as those commonly associated with commercial components can have up to three regular weekly heavy truck deliveries of product to the businesses. Deliveries would occur on different days and times throughout the week. Depending on the design of the use, truck unloading could occur at loading dock areas or in front of the building. In addition to occasional heavy truck deliveries, medium-duty vendor trucks and side-step vans could also deliver products to the other commercial businesses within the lots, which would typically occur at the storefronts.

Based on the operations assumptions and associated calculated reference noise levels above, and assuming standard spherical spreading loss (-6.0 dB per doubling of distance), project commercial component delivery truck activity noise exposure was calculated at the property lines of the nearest existing noise-sensitive residential uses. The results of the calculations relative to the applicable City of Winters General Plan noise level standards are summarized below in Table 4.7-12.

As shown in Table 4.7-12, truck delivery activity noise exposure would comply with the applicable City of Winters daytime and nighttime L_8 exterior noise level standards at the nearest existing noise-sensitive uses. Additionally, given the predicted exterior noise levels provided in Table 4.7-12, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), commercial delivery truck activity noise levels would comply with the General Plan daytime and nighttime interior noise level standards of 45 and 35 dB within the nearest existing residences.

Using the lowest average measured daytime and nighttime noise levels at each monitoring location during the surveys, ambient plus project delivery truck activity noise level increases were calculated at the closest existing residential uses. Project-generated increases in ambient daytime noise levels are calculated to range from less than 0.1 dB L8 to 1.0 dB L8 at the closest existing residential uses to the project site.

Table 4.7-12
Commercial Component Delivery Truck Noise at Existing Noise-Sensitive Uses

Nearest Noise-Sensitive Use[1]	Nearest Commercial Component[1]	Distance (ft)[2]	Predicted Noise Level, L_8 (dB)[3]	City Exterior Noise Standard, L_8 (dB)	
				Daytime	Nighttime
North - Residential	B1, B2	1,500	33	50	45
East - Residential	B3	1,000	37		
South - Residential	B2. B3	500	43		
West - Residential	B1, B2	600	41		

[1] Locations of existing nearby residential uses and commercial components are shown in Figure 4.7-2 and Figure 3-5 in Chapter 3, Project Description.
[2] Distances scaled from nearest commercial components to residential property lines.
[3] Predicted combined noise level exposure (L_8).

Source: Bollard Acoustical Consultants, Inc., 2024.

Additionally, project-generated increases in ambient nighttime noise levels are calculated to range from less than 0.1 dB L_8 to 0.7 dB L_8 at the closest existing residential uses. The calculated increases would be below the applied increase significance criteria of 5.0 dB.

Based on the analysis and results presented above, the commercial component delivery truck noise levels would comply with the City of Winters daytime and nighttime exterior and interior noise level limits at the nearest existing noise-sensitive uses. Additionally, the commercial truck deliveries would not result in a significant increase in ambient noise levels at existing sensitive receptors. Therefore, noise exposure from commercial truck deliveries at nearby residences would result in a less than significant impact.

Commercial HVAC Noise at Existing Sensitive Uses

The HVAC systems within buildings of commercial lots would likely consist of packaged rooftop air conditioning systems. Such rooftop-mounted HVAC units, which typically stand about four to five feet tall, would be shielded from view of nearby sensitive uses by the building parapets. Rooftop HVAC units frequently generate a noise level of approximately 45 dB L_{eq} at a reference distance of 100 feet from the building facade, including shielding by the building parapet (estimated to provide approximately 10 dB of noise level reduction). The associated L_8 noise level from HVAC equipment operations, a steady-state noise source, would be equivalent to the average L_{eq} noise level.

Based on the information above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project commercial component HVAC equipment noise exposure was calculated at the property lines of the nearest existing noise-sensitive

residential uses. The results of the calculations relative to the applicable City of Winters General Plan noise level standards are summarized in Table 4.7-13.

Table 4.7-13
Commercial Component HVAC Noise at Existing Noise-Sensitive Uses

Nearest Noise-Sensitive Use[1]	Nearest Commercial Component[1]	Distance (ft)[2]	Predicted Noise Level, L_8 (dB)[3]	City Exterior Noise Standard, L_8 (dB)	
				Daytime	Nighttime
North - Residential	B1, B2	1,500	24	50	45
East - Residential	B3	1,000	25		
South - Residential	B2, B3	500	34		
West - Residential	B1, B2	600	32		

[1] Locations of existing nearby residential uses and commercial components are shown in Figure 4.7-2 and Figure 3-5 in Chapter 3, Project Description.
[2] Distances scaled from nearest commercial components to residential property lines.
[3] Predicted combined noise level exposure (L8).

Source: Bollard Acoustical Consultants, Inc., 2024.

As shown in Table 4.7-13, noise level exposure from commercial building HVAC equipment would comply with the applicable City of Winters General Plan daytime and nighttime exterior noise level standards at the closest existing noise-sensitive residential uses. In addition, given the predicted exterior noise levels provided in Table 4.7-13, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), project commercial HVAC equipment noise levels would comply with the General Plan daytime and nighttime interior noise level standards of 45 and 35 dB within the nearest existing residences.

Using the lowest average measured daytime and nighttime noise levels at each monitoring location during the surveys, ambient plus project commercial HVAC equipment noise level increases were calculated at the closest existing residential uses. Project-generated increases in ambient daytime and nighttime noise levels are calculated to be 0.1 or less L_8 at the closest existing residential uses. The calculated increases above would be below the applied increase significance criteria of 5.0 dB.

Based on the above, project commercial component HVAC equipment noise levels would comply with the City of Winters daytime and nighttime exterior and interior noise level limits at the nearest existing noise-sensitive uses. Additionally, project commercial HVAC equipment would not result in a significant increase in ambient noise levels at existing sensitive receptors. Therefore, noise exposure from on-site HVAC equipment at nearby residences would result in a less-than-significant impact.

Park Activity Noise at Existing Sensitive Uses

Noise generated by parks vary depending on whether the parks are intended for passive or active use. Passive uses include picnic, sitting, and walking trail areas whereas active uses include playing fields/courts and play structures. Although the current site plans contain the general locations of the planned park components, detailed plans containing park activities (i.e., active or passive use) have not yet been developed. Lots D and E could contain active park activities; however, Lot F, a linear park consisting of a trail and drainage channel, would likely have passive park usage. Primary noise sources associated with park uses are active activities, typically consisting of children playing on play structures, and participants and spectators at outdoor sport playing fields/courts. Park activities associated with the proposed project are assumed to be restricted to daytime hours (7:00 Am to 10:00 PM).

According to BAC file data, parks consisting of active uses (playing fields/playgrounds) have noise levels of approximately 60 dB L_{eq} and 70 dB L_{max} at a distance of 50 feet. The L_8 noise level associated active uses would be approximately 3.0 dB higher than the measured average L_{eq} noise level.

Because activities within park components would likely consist of human speech (i.e., shouting and cheering during activities), noise associated with park activities would be subject to the City of Winters General Plan correction/adjustment to noise of 5.0 dB shown above in Table 4.7-7 (criteria contains a 5.0 dB penalty for noise consisting primarily of speech). Assuming standard spherical spreading loss (-6.0 dB per doubling of distance), project park component activity noise exposure was calculated at the property lines of the nearest existing noise-sensitive uses. The results of the calculations relative to the applicable City of Winters General Plan noise level standards are summarized in Table 4.7-14.

As shown in Table 4.7-14, noise level exposure from active activity park usage would comply with the applicable City of Winters General Plan daytime exterior noise level standards at the closest existing noise-sensitive uses. Additionally, given the predicted exterior noise levels provided in Table 4.7-14, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), project park activity noise levels would comply with the General Plan daytime interior noise level standard of 45 dB within the nearest existing residences.

Using the lowest average measured daytime noise levels at each monitoring location during the surveys, ambient plus project park activity noise level increases were calculated at the closest existing residential uses. Project-generated increases in ambient daytime noise levels would range from less than 0.1 to 1.2 dB L_8 at the closest existing residential uses to the project. The calculated increases would be below the applied increase significance criterion of 5.0 dB.

Based on the above, project park activity noise levels would comply with the City of Winters daytime exterior and interior noise level limits at the nearest existing noise-sensitive residential uses. Additionally, project park activities would not result in a significant increase in ambient noise levels at those existing sensitive receptors.

Therefore, noise exposure from on-site park activities at nearby residences would result in a less-than-significant impact.

Table 4.7-14
Park Component Activity Noise at Existing Noise-Sensitive Uses

Nearest Noise-Sensitive Use[1]	Distance (ft)[2]	Predicted Noise Level, L_8 (dB)[3]		City Daytime Exterior Noise Standard, L_8 (dB)
		No Adjustment	With Adjustment	
North - Residential	1,300	35	40	50
East - Residential	500	43	48	
South - Residential	1,000	37	42	
West - Residential	1,000	37	42	

[1] Existing residential uses are shown in Figure 4.7-2.
[2] Distances scaled from nearest park components to residential property lines.
[3] Predicted noise level exposure (L_8) from nearest park lot assumed to contain active activity usage (Lots D & E).

Source: Bollard Acoustical Consultants, Inc., 2024.

Combined Noise at Existing Sensitive Uses

The combined noise levels from the commercial and park component activities at the nearest existing sensitive receptors are shown in Table 4.7-15 and Table 4.7-16.

It should be noted that due to the logarithmic nature of the decibel scale, the sum of two noise values which differ by 10 dB equates to an overall increase in noise levels of 0.4 dB. When the noise sources are equivalent, the sum would result in an overall increase in noise levels of 3 dB.

As shown in Table 4.7-15 and Table 4.7-16, combined noise level exposure from project commercial and park activities would comply with the applicable City of Winters General Plan daytime and nighttime exterior noise level criteria at the closest existing noise-sensitive uses. In addition, given the predicted exterior noise levels provided in Table 4.7-15 and Table 4.7-16, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), combined noise levels would comply with the General Plan daytime and nighttime interior noise level standards of 45 and 35 dB within the nearest existing residences.

Using the lowest average measured daytime and nighttime noise levels at each monitoring location during the surveys, ambient plus combined project noise level increases were calculated at the closest existing residential uses.

Table 4.7-15
Combined Project Noise Levels vs. Daytime Exterior Noise Standard

Nearest Noise-Sensitive Use[1]	Predicted Noise Level, L_8 (dB)				Calculated Combined, L_8	City Daytime Exterior Noise Standard, L_8 (dB)
	Commercial Parking	Commercial Delivery Truck	Commercial HVAC	Park Activity		
North - Residential	26	33	24	40	41	50
East - Residential	34	37	25	48	49	
South - Residential	35	43	34	42	46	
West - Residential	34	41	32	42	45	

[1] Predicted noise levels, as shown in Table 4.7-11 through Table 4.7-14.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.7-16
Combined Project Noise Levels vs. Nighttime Exterior Noise Standard

Nearest Noise-Sensitive Use[1]	Predicted Noise Level, L_8 (dB)				Calculated Combined, L_8	City Nighttime Exterior Noise Standard, L_8 (dB)
	Commercial Parking	Commercial Delivery Truck	Commercial HVAC	Park Activity		
North - Residential	26	33	24	--	34	45
East - Residential	34	37	25	--	39	
South - Residential	35	43	34	--	44	
West - Residential	34	41	32	--	42	

[1] Predicted noise levels, as shown in Table 4.7-11 through Table 4.7-14.

Source: Bollard Acoustical Consultants, Inc., 2024.

Combined project-generated increases in ambient daytime noise levels would range from less than 0.1 dB L_8 to 2.2 dB L_8 at the nearest existing residential uses to the project site.

Based on the above, combined noise levels associated with the commercial and park components of the proposed project would comply with the City of Winters daytime and nighttime exterior and interior noise level limits at the nearest existing noise-sensitive residential uses. Additionally, combined noise would not result in a significant increase in ambient noise levels at those existing sensitive receptors. Therefore, noise exposure from combined commercial and park components at nearby residences would result in a less than significant impact.

Conclusion

Based on the above, the proposed project would not result in the generation of a substantial permanent increase in ambient noise levels at existing residences located within the immediate project vicinity. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.7-3 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Based on the analysis below, the impact is *less than significant*.

As presented in Table 4.7-3, the measured existing ambient vibration levels in the project vicinity are below the strictest Caltrans thresholds for damage to structures and for annoyance. The proposed project would consist of a residential community, park uses, and commercial uses. Such uses do not typically involve equipment that generates appreciable vibration. Overall, operations associated with the proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels.

However, construction activities associated with the proposed project would have the potential to result in varying degrees of temporary ground vibration depending on the specific construction equipment used and operations involved. Accordingly, the analysis below focuses on construction vibration only.

During on-site project construction, heavy equipment would be used for grading, excavation, paving, and building construction. Heavy equipment would also be used during the proposed roadway improvements. Use of heavy equipment associated with such would generate localized vibration in the immediate vicinity of the project site and roadway improvements area. The nearest existing noise-sensitive receptors are located approximately 50 feet to the west of the project site from where on-site construction activities could occur.

Municipal Code Section 8.20.070.B.5 prohibits the operation of any device that creates a vibration which is above the vibration perception of an individual at or beyond the real property boundary of the source if on private property. According to the 2020

Caltrans Transportation and Construction Vibration Guidance Manual, the threshold of human perception to vibration is established as 0.1 in/sec PPV.

Table 4.7-17 presents the range of vibration levels for equipment commonly used in general residential construction projects at a reference distance of 25 feet. With the exception of the vibratory roller, vibration generated by each of the equipment types in Table 4.7-17 are below 0.1 in/sec PPV at a distance of 25 feet. When projected to the nearest existing residential structure located approximately 50 feet away, construction equipment vibration levels are calculated to be 0.07 in/sec PPV or below. Based on the analysis provide above, on-site construction within the project area is not expected to result in excessive groundborne vibration levels at nearby existing structures, nor result in an exceedance of Section 8.20.070.B.5 vibration criteria.

Table 4.7-17
Vibration Source Amplitudes for On-Site Construction Equipment

Equipment	Reference PPV at 25 Feet (in/sec)
Vibratory Roller	0.210
Large Bulldozer	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003

Source: Bollard Acoustical Consultants, Inc. 2024.

Based on the above, construction and operation of the proposed project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. As such, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, “cumulative impacts” refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

As discussed above, operations associated with the proposed project would not result in the generation of excessive groundborne vibration. Because construction activities associated with the proposed project that have the potential to result in ground vibration would only be temporary, cumulative impacts related to vibration are not discussed further.

The geographic scope for the cumulative noise analysis generally includes buildout of the proposed project in conjunction with the development of the Winters General Plan planning area. For further detail related to the cumulative setting of the proposed project, refer to Chapter 5, Statutorily Required Sections, of this EIR.

4.7-4 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout of the City of Winters. Based on the analysis below, the project's incremental contribution to the significant cumulative impact is *less than cumulatively considerable*.

Future development projects within the City of Winters planning area, in combination with the proposed project, would incrementally affect the future cumulative ambient noise environment. Given the residential, commercial, and park components of the proposed project, the primary project component that could combine with noise impacts from surrounding development in the project region would be associated with vehicle traffic generated by the project and other planned development projects, which together, could potentially result in a significant cumulative impact related to transportation noise. As discussed under Impact 4.7-1, construction of the proposed project would result in a less-than-significant impact related to noise. Additionally, as discussed under Impact 4.7-2, operation of the proposed project would similarly result in a less-than-significant impact related to noise. Thus, the primary project component that could combine with noise from other development in the project region would be associated with vehicle traffic, which, together, could potentially result in a significant cumulative impact related to transportation noise.

The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify increases in cumulative traffic noise levels at the nearest existing noise-sensitive land uses to the project area roadway network. The analysis below first assesses whether a cumulative roadway noise impact would occur by comparing existing conditions against the Cumulative Plus Project scenario, as shown in Table 4.7-18. If a cumulative roadway noise impact is identified along a roadway segment, the roadway is evaluated to assess whether the proposed project would result in a cumulatively considerable contribution to the cumulative impact along the segment by comparing the roadway noise associated with the cumulative against the Cumulative Plus Project scenario, as shown in Table 4.7-19. As shown in Table 4.7-18, project-generated traffic would exceed the applicable General Plan Policy VII.E.6 significant increase criteria of 3.0 dB along five roadway segments (segments 16, 18, 21, 22, and 23). However, as shown in Table 4.7-19, the project-generated increase along the roadway segments would not have a cumulatively considerable contribution to the cumulative impact relative to the General Plan criteria.

Additionally, using the lowest average measured daytime and nighttime noise levels at each monitoring location during the surveys, ambient plus cumulative project noise level increases were calculated at the closest existing residential uses. Cumulative project-generated increases in ambient nighttime noise levels would range from less than 0.1 dB L_8 to 0.9 dB L_8 at the nearest existing residential uses. The calculated cumulative increases above would be below the applied increase significance criterion of 5.0 dB.

Based on the above, under Cumulative Plus Project conditions, the proposed project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or

noise ordinance, or applicable standards of other agencies. Therefore, the project's incremental contribution to cumulative traffic noise impacts would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

Table 4.7-18
Predicted Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – Existing vs. Cumulative Plus Project Conditions

#	Roadway	Segment	Predicted DBL(dB)			Significance Threshold[1]	Threshold Exceeded?
			Existing	Cumulative Plus Project	Increase		
1	SR 128	West of Railroad Avenue	60.5	61.5	1.0	>3.0	No
2	SR 128	Railroad Avenue to Dutton Street	58.8	59.6	0.8	>3.0	No
3	SR 128	Dutton Street to Walnut Lane	55.5	56.7	1.2	>3.0	No
4	SR 128	Walnut Lane to Morgan Street	58.7	59.9	1.2	>3.0	No
5	SR 128	Morgan Street to Project Street A	56.4	57.6	1.3	>3.0	No
6	SR 128	Project Street A to Farmstead Driveway W	56.4	57.4	1.0	>3.0	No
7	SR 128	Farmstead Driveway W to East Main Street	56.4	57.4	1.0	>3.0	No
8	SR 128	East Main Street to Farmstead Driveway E	53.1	54.7	1.6	>3.0	No
9	SR 128	Farmstead Driveway E to Timbercrest Road	58.8	60.5	1.6	>3.0	No
10	SR 128	Timbercrest Road to County Road (CR) 90	64.8	67.1	2.3	>3.0	No
11	SR 128	CR 90 to Interstate-505 (I-505) Southbound Ramps	52.7	55.1	2.5	>3.0	No
12	SR 128	I-505 Southbound Ramps to I-505 Northbound Ramps	48.8	51.0	2.2	>3.0	No
13	SR 128	East of I-505 Northbound Ramps	64.2	66.2	2.0	>3.0	No
14	Railroad Avenue	North of SR 128	59.0	60.3	1.3	>3.0	No
15	Railroad Avenue	South of SR 128	56.1	58.2	2.1	>3.0	No
16	Railroad Avenue	North of SR 128	47.0	52.4	5.4	>3.0	Yes
17	Dutton Street	North of SR 128	49.0	51.4	2.4	>3.0	No
18	Walnut Lane	South of SR 128	37.3	41.5	4.2	>3.0	Yes
19	Walnut Lane	North of SR 128	--	--	--	--	--
20	Morgan Street	South of SR 128	51.5	53.7	2.3	>3.0	No
21	Morgan Street	South of SR 128	50.3	56.4	6.1	>3.0	Yes
22	East Main Street	North of SR 128	25.1	51.1	26.0	>3.0	Yes
23	PG&E Way	South of SR 128	33.2	47.2	14.0	>3.0	Yes
24	CR 90	North of SR 128	47.8	49.7	1.9	>3.0	No
25	CR 90	South of SR 128	--	--	--	--	--
26	I-505 Southbound Ramps	South of SR 128	45.1	48.0	2.9	>3.0	No
27	I-505 Northbound Ramps	North of SR 128	45.5	48.0	2.4	>3.0	No

[1] Significance threshold pursuant to City of Winters General Plan Policy VII.E.6.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.7-19
Predicted Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – Cumulative vs. Cumulative Plus Project Conditions

#	Roadway	Segment	Predicted DBL(dB)			Significance Threshold[1]	Threshold Exceeded?
			Cumulative	Cumulative Plus Project	Increase		
16	Railroad Avenue	North of SR 128	52.4	52.4	0.0	>3.0	No
18	Walnut Lane	South of SR 128	41.3	41.5	0.2	>3.0	No
21	Morgan Street	South of SR 128	56.1	56.4	0.3	>3.0	No
22	East Main Street	North of SR 128	51.1	51.1	0.0	>3.0	No
23	PG&E Way	South of SR 128	47.2	47.2	0.0	>3.0	No

[1] Significance threshold pursuant to City of Winters General Plan Policy VII.E.6.

Source: Bollard Acoustical Consultants, Inc., 2024.

4.8 Public Services and Utilities

4.8 PUBLIC SERVICES AND UTILITIES

4.8.1 INTRODUCTION

The Public Services and Utilities chapter of the EIR summarizes the setting information and identifies potential new demands resulting from the proposed project on fire and police protection services, schools, parks, recreation facilities, and other public facilities such as libraries. The chapter also evaluates the sufficiency of water supplies to meet the project's water demand and assesses the adequacy of the wastewater system, solid waste disposal, and gas, electric, and telecommunication utilities required to serve the project. Potential impacts to public services are identified if the proposed project would require the development of new facilities or expansion of existing facilities, the construction of which could have adverse physical effects on the environment. Information for the Public Services and Utilities chapter was drawn from a Water Demand Technical Memorandum (Water Demand Memo) and associated Water System Hydraulic Analysis (see Appendix K),[1] a Storm Drainage Assessment Technical Memorandum (Storm Drainage Memo) (see Appendix L),[2] and a Sewer Demand Technical Memorandum (Sewer Demand Memo) (see Appendix M) prepared for the proposed project by Wood Rodgers.[3] Additional information was drawn from three technical memorandums prepared by Woodard and Curran, Inc. for the City's Water Master Plan Update,[4,5,6] the City of Winters General Plan Policy Document,[7] General Plan Background Report,[8] and the City of Winters General Plan EIR.[9]

4.8.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing public services in the area, including fire and police protection services, schools, parks, and recreation facilities, as well as the existing utilities and service systems in the project area, including water supply, wastewater conveyance and treatment, solid waste, and gas, electric, and telecommunication infrastructure.

Fire Protection Services

The Winters Fire Department (WFD) is responsible for fire protection and rescue and emergency response services for approximately 86 square miles in Yolo County which consists of the City of Winters and the Winters Fire District. Services provided include fire suppression, first responder medical aid, fire prevention, fire inspections, and search and rescue. The WFD gives and receives additional firefighting resources from all of the surrounding fire districts, as well as resources from Yolo, Solano and Napa County Fire Departments on a mutual aid basis.[10]

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1 Wood Rodgers. *Farmstead Subdivision Current Water Demand Technical Memorandum*. June 26, 2024.
2 Wood Rodgers. *Farmstead Storm Drainage Assessment*. June 28, 2024.
3 Wood Rodgers. *Farmstead Subdivision Current Sewer Demand and Impact to the Gateway Sewer Pump Station Technical Memorandum*. June 12, 2024.
4 Woodard & Curran, Inc. *City of Winters Water Master Plan: Desktop Condition Assessment*. February 9, 2024.
5 Woodard & Curran, Inc. *City of Winters Water Master Plan: Capacity Evaluation*. February 9, 2024.
6 Woodard & Curran, Inc. *City of Winters Water Master Plan: Groundwater Sustainability Assessment*. February 9, 2024.
7 City of Winters. *General Plan Policy Document*. May 19, 1992.
8 City of Winters. *General Plan Background Report*. May 19, 1992.
9 City of Winters. *Draft Environmental Impact Report Draft General Plan*. October 21, 1991.
10 Winters Fire Department. *Department Info*. Available at: https://www.wintersfire.org/department-info/#:~:text=Fire%20Chief%20%E2%80%93%20Jack%20Snyder. Accessed July 2024.

According to the WFD 2023 Annual Report, WFD employs five full time/paid personnel (one chief, three captains, and one fire engineer), and 20 volunteer firefighters. Minimum staffing per day is two staff members.[11] The WFD Station 26 is located at 700 West Main Street, approximately one mile to the southwest of the project site. Station 26 would provide fire protection services to the proposed project. Station 26 responded to a total of 1,082 calls for service in the year of 2023. The average response time for calls within the City was four minutes and 16 seconds in 2023.[12]

WFD collects a development impact fee specific to fire services within the WFD service area. Currently, the WFD Impact Fee is $2,285.02 for each low density residential unit, $2,086.89 for each medium density residential unit, $2,937.82 for each medium high density residential unit, $1,788.77 for each high density residential unit, and $1.14 for each square foot (sf) of neighborhood commercial development.[13] The fee was last updated July 1, 2024.

Police Protection Services

The Winters Police Department (WPD) provides law enforcement services to the City of Winters, including the areas in the vicinity of the project site. In addition, the California Highway Patrol provides traffic enforcement and accident investigations along the Interstate 505 (I-505) corridor to the east of the project site. The office for WPD operations is located at 702 West Main Street, and is located approximately one mile southwest of the project site. The WPD is dispatched through the Yolo Emergency Communications Agency (YECA), a joint powers agency that performs dispatching services for most law enforcement and fire agencies within Yolo County. The WPD is staffed with 11 sworn positions, including a Chief of Police, two Patrol Sergeants, one Detective/ Administrative Sergeant, and six Patrol Officers. According to the City of Winters Municipal Services Review and Sphere of Influence Study, the WPD has a goal ratio of 1.7 sworn officers per 1,000 residents and is currently meeting the goal response time of three minutes for emergency calls.[14] Additionally, the WPD is staffed with three non-sworn positions and three volunteer positions. The WPD works in collaboration with outside agencies in accordance with a county wide mutual aid agreement.[15] The WPD is organized into four divisions: records, property and evidence, patrol, and investigations.[16] The WPD received a total of 9,457 calls for service between January 1, 2022 and December 31, 2022.[17]

Policy IV.F.1. of the City of Winters General Plan calls for adequate staffing and patrol arrangements to maintain a goal emergency response time of three minutes. Pursuant to Policy IV.F.2, the WPD continually monitors response times and reports such monitoring annually.

WPD collects a development impact fee specific to public safety within the WPD service area. Currently, the WPD Impact Fee is $1,178.38 for each low density residential unit, $1,031.07 for each medium density residential unit, $957.43 for each medium high density residential unit,

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11 Snyder, Jack, Fire Chief, City of Winters Fire Department. *Personal Communication [email] with Kirk Skierski, Senior Planner, City of Winters*. September 12, 2023.
12 Winters Fire Department. *Annual Report*. 2023.
13 City of Winters. *Impact Fees Effective July 1, 2024. Resolution 2024-42*. 2024.
14 Yolo County Local Agency Formation Commission. *City of Winters Municipal Services Review and Sphere of Influence Study*. September 26, 2008.
15 Winters Police Department. *About Us*. Available at: https://www.cityofwinters.org/160/About-Us. Accessed July 2024.
16 Winters Police Department. *Police Services*. Available at: https://www.cityofwinters.org/286/Police-Services. Accessed July 2024.
17 Miller, John, Police Chief, City of Winters Police Department. *Personal Communication [email] with Kirk Skierski, Senior Planner, City of Winters*. August 30, 2023.

$883.77 for each high density residential unit, and $0.57 for each sf of neighborhood commercial development.[18] The fee was last updated July 1, 2024.

Schools

The project would be served by the Winters Joint Unified School District (WJUSD). Table 4.8-1 below provides enrollment and capacity information for schools within the WJUSD.

Table 4.8-1
Schools Serving the Project Site

School	Grades	Enrollment	Capacity
Winters High School	9-12	493	729
Winters Middle School	6-8	340	594
Shirley Rominger School	3-5	346	500
Waggoner Elementary School	TK-2	389	475

Source: Winters Joint Unified School District. Facility Master Plan. Fall 2023.

The WJUSD collects a development impact fee specific to school facilities. Effective May 20, 2024, the WJUSD Impact Fee is $5.17 per sf of residential development, and $0.84 per sf of commercial development. The proposed project would be required to pay all applicable fees to the WJUSD.

Parks and Recreational Facilities

The proposed project area is served by the City of Winters Parks and Recreation Department. The nearest public park to the project site is Blue Oak Park, located approximately 0.15-mile south of the site. Additional public recreational facilities within the City include City Park, Winters Putah Creek Nature Park, Valley Oak Park, Three Oaks Park, Walnut Park, Bobbie Greenwood Pool, Willow Canal Dog Park, and Rotary Park.

Other Public Facilities

The Yolo County Library serves the cities of West Sacramento, Davis, Winters, and Yolo County. Currently, Yolo County Library operates a total of eight branches, located in Clarksburg, Davis, Esparto, Knights Landing, West Sacramento, Winters, and Yolo.[19] The Winters Community Library is the nearest branch to the project site and is located at 210 Front Street, approximately 0.4-mile to the southwest of the project site.

Water Supply and Delivery Infrastructure

Water supply for the project area is provided by the City of Winters municipal water supply. Groundwater is currently the only water source for the City, although the City does hold an entitlement to divert water from Putah Creek. The City currently operates five wells, with groundwater elevations ranging between 42 and 69 feet below ground surface (bgs). Groundwater in the vicinity of Winters is recharged primarily by subsurface inflow from the west and north, percolation, and seepage from Putah Creek and Dry Creek.

Water Delivery Infrastructure

The City currently serves approximately 7,115 customers and maintains approximately 32 miles of pipeline. The City's water distribution system mostly consists of polyvinyl chloride (PVC) and

[18] City of Winters. *Impact Fees Effective July 1, 2024. Resolution 2024-42*. 2024.
[19] Yolo County Library. *Yolo County Library Facilities Master Plan 2018-2035*. September 11, 2017.

ductile iron (DI), though all four-inch piping is cast iron. Some of these pipes have been identified for replacement in the City's current Capital Improvement Program (CIP).

The City pumps drinking water from five active wells into a single system (Wells #2, #4, #5, #6, and #7), drawing from two aquifers. In addition to the five existing wells, a new City production well (Well #8) was drilled in May 2022. Two wells operate with auxiliary power supplies and are capable of supplying the entire system if necessary. The system operates at a pressure of 58 to 64 pounds per square inch (psi). The wells are equipped to respond independently and jointly to address pressure changes.[20] The locations of pipes and wells within the City are shown in Figure 4.8-1.

City of Winters Water Supply and Projected Demand

The annual groundwater production from the City's wells has decreased from approximately 1,819 acre-feet per year (AFY) in 2005 to 1,414 AFY in 2022. Over the last decade and a half, an overall reduction in water use has been observed, due to water conservation measures and the increased use of water-efficient fixtures.[21]

The City's water consumption and well production data for years 2017 to 2023 are summarized in Table 4.8-2. The difference between the production data and the consumption data represents the unaccounted-for-water. An average of 15 percent of total well production from 2017 to 2022 is unaccounted-for-water.

Table 4.8-2
Water Consumption and Well Production

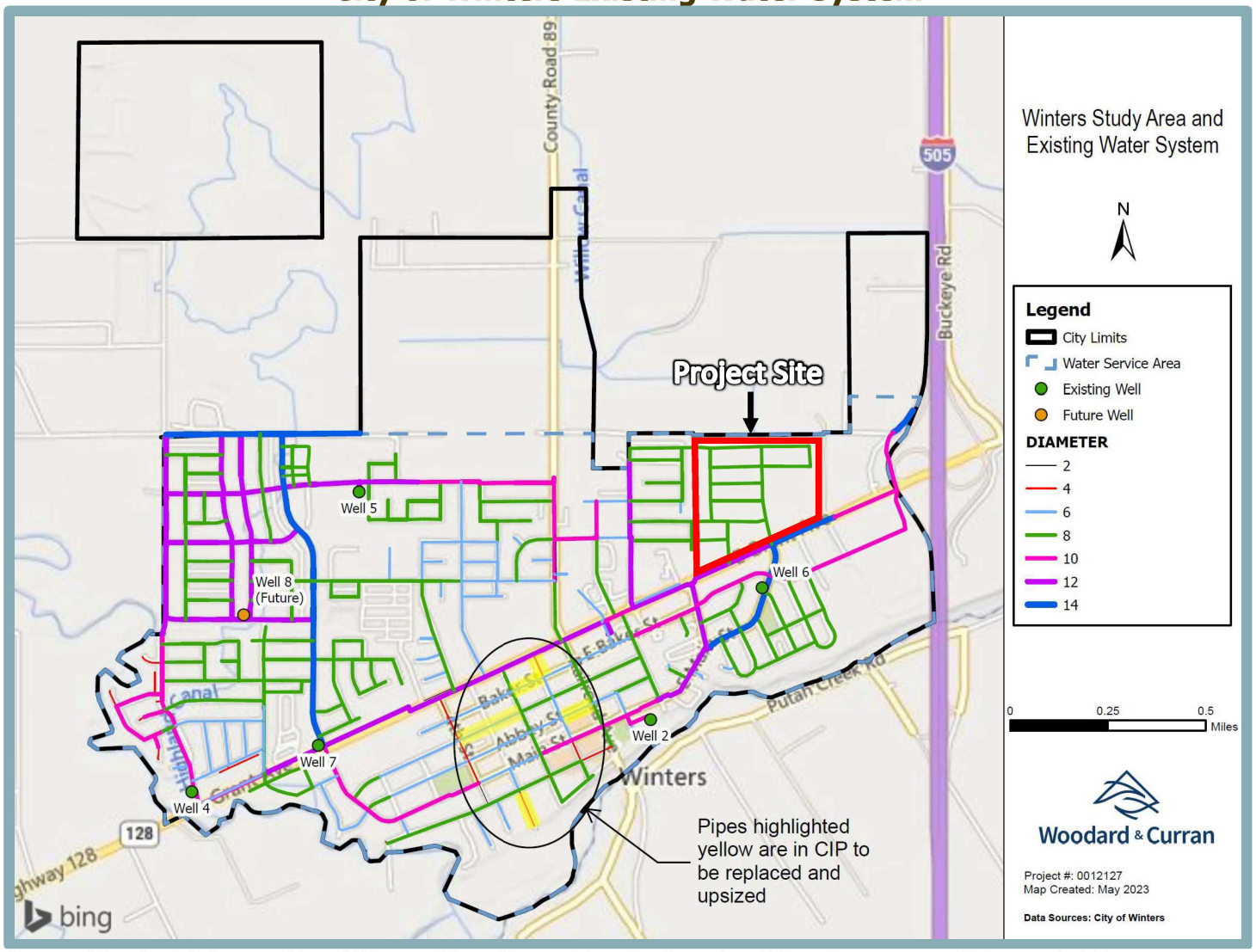
Year	Average Water Consumption (gpd)	Average Well Production (gpd)	Unaccounted for Water (gpd)	Loss Percentage
2023	981,344	1,191,299	209,955	18%
2022	1,044,856	1,262,490	217,634	17%
2021	1,072,387	1,223,526	151,139	12%
2020	1,048,697	1,241,227	192,530	16%
2019	911,728	1,094,458	182,730	17%
2018	931,917	1,097,729	165,812	15%
2017	936,647	1,076,444	139,797	13%

Source: Woodard & Curran, 2024.

The City historically measured groundwater levels in the five production wells intermittently from 2001 to 2013, typically at quarterly or seasonal frequencies. Since summer 2013, groundwater levels have been measured monthly. Groundwater levels are measured as depth in feet bgs and are typically reported to the nearest foot. Seasonal groundwater level fluctuations in the wells are apparent, on the order of 20 to 40 feet, reflecting greater pumping demands during the summer than in the winter.

[20] *Ibid.*
[21] Woodard & Curran. *City of Winters Water Master Plan: Groundwater Sustainability Assessment*. February 9, 2024.

Figure 4.8-1
City of Winters Existing Water System



Source: Woodard & Curran. City of Winters Water Master Plan: Desktop Conditions Assessment. February 9, 2024.

Groundwater levels at the City wells were generally stable with large fluctuations during 2001 to 2012. The downward trends occurred from 2013 to 2016 during below normal hydrologic conditions, but wet conditions during 2017 and 2019 provided significant recovery in groundwater levels that reached nearly the highest spring groundwater levels during the past ten years (2012 to 2022). The decreasing trends during 2020 to 2022 in groundwater levels are mainly attributed to the drought conditions.

The trends observed in groundwater levels at the City wells during the period of 2001 to 2022 are similar to those observed in the Subbasin-wide average groundwater levels. While the Subbasin experienced declining trends, the groundwater system appears to be robust, responding rapidly to hydrologic conditions and recovering quickly after repeated periods of dry and critical water years. Among the City's wells, Well #7 shows more stable groundwater levels with similar ranges to those prior to 2017. Overall, wet conditions during fall 2022 and spring 2023 after the last three years of drought are anticipated to increase groundwater levels, but the recent data have not yet been evaluated.

Water Quality

Yolo Subbasin Groundwater Agency (YSGA) reviews water quality monitoring data on an annual basis to monitor for potential changes in groundwater quality. Specifically, the representative monitoring network consists of public supply water system wells, agricultural and on-farm domestic drinking water wells and private domestic wells. The Yolo Subbasin Groundwater Sustainability Plan (GSP) monitoring network for groundwater quality includes the City's Well #4, Well #5, and Well #6.

The YSGA has identified a list of water quality constituents of concern, including those constituents whose presence, distribution, or concentration can be influenced by groundwater management activities. The list of water quality constituents of concern for the Subbasin includes total dissolved solids (TDS), nitrate, arsenic, boron, and hexavalent chromium (VI).[22]

The City's water is tested annually for primary drinking water standards (including testing for barium, chromium, fluoride, nitrate, selenium, gross alpha particle activity, total trihalomethanes, lead and copper), secondary drinking water standards, unregulated substances, and coliform bacteria. Water quality at all utilized wells was within levels required by Federal and state regulations. Potable water in the City met all EPA and State drinking water health standards in 2022.[23]

Wastewater Conveyance and Treatment

Wastewater within the project area is conducted to the City's Gateway Sewer Pump Station. The Gateway Sewer Pump Station was constructed to support the peak wet weather flow (PWWF) demands for the commercial lots fronting State Route (SR) 128 (also known as East Grant Avenue) and County Road (CR) 90, and was constructed with a capacity of 400 gallons per minute (gpm).

The City of Winters owns and operates the Wastewater Treatment Facility (WWTF), located at the northwest edge of the City limits. The WWTF provides treatment and disposal of wastewater

[22] City of Winters. *Water Master Plan: Groundwater Sustainability Assessment*. February 9, 2024.
[23] City of Winters. *2022 Water Quality Report*. 2022.

from approximately 7,200 residents in the City. The City's Wastewater Department is responsible for operation and maintenance of the collection system and the WWTF.[24]

The PWWF capacity of the WWTF at buildout is anticipated to be 9.67 million gallons per day (mgd). The WWTF treats wastewater through a two-stage aerated pond system. Final effluent is stored in four storage ponds. The City typically operates the storage ponds such that Ponds 2-4, which have a combined capacity of 93.8 million gallons (mg), are empty at the onset of the wet season. Treated effluent from the WWTF is disposed of on 170 acres of spray fields, or provided as recycled water to local farmers for crop irrigation. Effluent from the WWTF is released as irrigation during dry weather, and held in storage ponds during wet weather.[25]

Stormwater Drainage

The major watersheds in the City include the Moody Slough Subbasin and the Putah Creek/Dry Creek Subbasins. The watersheds are hydraulically separated under more frequent (smaller) storm conditions; however, under very large storm events (such as the 100-year storm), the Moody Slough watershed flows to the south and overtop SR 128 due to the limited flow capacity of the sloughs crossing beneath I-505. Watersheds further north (including Chickahominy Slough) also flow southward along the west side of I-505 due to the limited crossing capacity under I-505. The overflows exacerbate flooding within the Moody Slough upstream of I-505. The convergence of the overflows has the potential to flood developed/developable properties within the City that are currently draining directly to Putah Creek. The City of Winters prepared a Storm Drainage Master Plan (SDMP) for the northeast corner of the City, including the project site, to mitigate the worst-case flooding conditions.[26] The SDMP is discussed further below under Impact 4.8-6.

As discussed in the SDMP, during the 100-year flood event, the main flood threat to the project site from off-site areas originates in the north. A significant portion of the existing City to the west of the project site drains directly to Putah Creek through existing storm drains. Flooding from the Moody Slough and Chickahominy Slough watersheds cannot efficiently drain eastward across I-505. The floodwaters accumulate where Moody Slough crosses under I-505 and pond immediately north of the project site during high-water events. While the SDMP only evaluated overflow spilling into the project area from an un-failed condition under existing conditions, worst-case flooding for the project site occurs when uncertified embankments to the north fail.

The project site currently provides a measure of on-site floodplain storage, which attenuates the combined flow passing through the site and discharges through two existing culverts (a 24-inch and 36-inch storm drain line) under SR 128. Once flows have passed south of SR 128, flows are conveyed through the Pacific Gas and Electric Company (PG&E) detention basin to Putah Creek through an existing California Department of Transportation (Caltrans) facility.

Solid Waste

Solid waste collection services in the project area are provided by the City of Winters through Waste Management (WM). WM provides curbside collection of mixed waste (garbage and recyclables) and green waste. The mixed waste collected by the City is delivered to the Yolo County Central Landfill (YCCL), located in Woodland, California. The YCCL is a Class III sanitary landfill, and includes separation and resource recovery features.[27]

[24] City of Winters. *Sewer System Management Plan*. November 2022.
[25] City of Winters. *Wastewater Treatment Facility Master Plan Update*. June 2018.
[26] City of Winters. *Storm Drainage Master Plan Northeast Area*. March 2020.
[27] City of Winters. *General Plan Background Report*. May 19, 1992.

The 473-acre YCCL is permitted to accept 3,000 tons per day. The YCCL has a permitted design capacity of 49,035,200 cubic yards and, as of July 2022, has a remaining capacity of 33,140,373 cubic yards. Under current land use and development conditions, the YCCL has a permitted lifespan extending to 2124.[28]

Gas, Electric, and Telecommunication Infrastructure

PG&E would provide gas and electric services to the project site. PG&E is one of the largest providers of electricity and natural gas throughout Yolo County. PG&E is a San Francisco based, private company, publicly regulated by the California Public Utilities Commission and provides electricity and natural gas to the majority of Northern California. PG&E has ample resources to meet a wide range of projected growth; however, when the time comes, additional improvements to the facilities may be required to meet future growth demands.

Beginning in January 2021, Valley Clean Energy (VCE) started serving the electricity needs of the City of Winters, in addition to the cities of Woodland and Davis, as well as unincorporated areas of Yolo County, which began receiving service in June 2018. Customers within the participating areas have the opportunity to continue receiving service from PG&E or to receive energy procured by VCE. While VCE supplies the energy for customers enrolled in the VCE program, VCE electricity is transmitted through PG&E-owned-and-operated distribution and power lines. PG&E will continue to provide natural gas supplies to the City.

Existing electricity, and telecommunications infrastructure is located along SR 128. In accordance with Winters Municipal Code Section 16.20.020, existing aboveground infrastructure would be undergrounded, and new natural gas, electricity, and telecommunications infrastructure would be extended into the project site within the internal street system.

4.8.3 REGULATORY CONTEXT

The following discussion contains a summary of regulatory controls pertaining to public services and utilities, including State and local laws and ordinances.

Federal Regulations

The following are applicable State regulations associated with utilities and service systems related to the proposed project.

Federal Clean Water Act

The National Pollutant Discharge Elimination System (NPDES) permit system was established in the federal Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the U.S. Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

The NPDES Municipal Stormwater Permitting Program regulates stormwater discharges from separate storm sewer systems. NPDES Municipal Stormwater Permits are issued in two phases. Phase I regulates stormwater discharges from large- and medium-sized municipal separate storm sewer systems (MS4) (those serving more than 100,000 persons). Most Phase I permits are issued to a group of co-permittees encompassing an entire metropolitan area. Phase II provides

[28] California Department of Resources Recycling and Recovery. *SWIS Facility/Site Activity Details Yolo County Central Landfill (57-AA-0001)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/689?siteID=4033. Accessed July 2024.

coverage for smaller municipalities, including nontraditional small storm sewer systems, which include governmental facilities such as military bases, public campuses, and prison and hospital complexes. The NPDES Municipal Stormwater Permits require the discharger to develop and implement a Stormwater Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable.

The proposed project is located outside of a jurisdiction covered by a MS4 Permit and is therefore subject to the State's requirements, including the State Water Resources Control Board's General Construction Permit Order 2009-0009-DWQ (amended by 2010-0014-DWQ & 2012-0006-DWQ).[29]

State Regulations

The following are applicable State regulations related to the proposed project.

California Fire Code

The California Fire Code (CFC) contains regulations related to construction, maintenance, and use of buildings. Topics addressed in the CFC include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The CFC contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 15000 et seq. of the California Health and Safety Code, include regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) is a school construction measure primarily for modernization and rehabilitation of older school facilities and construction of new school facilities. Proposition 1A/SB 50 implemented significant fee reforms by amending the laws governing developer fees and school mitigation.

- Establishes the base (statutory) amount (indexed for inflation) of allowable developer fees at $1.93 per square foot for residential construction and $0.31 per square foot for commercial construction.
- Prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess of or in addition to those provided in the statute.

Proposition 1A/SB 50 also prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […] involving […] the planning, use, or development of real property" (Government Code 65996(b)). Additionally, a local agency cannot require participation in a Mello-Roos for school facilities; however, the statutory fee is reduced by the amount of any voluntary participation in a Mello-Roos. Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed

[29] Wood Rodger. *Walnut 10/Farmstead Water Quality Design Approach Technical Memorandum*. July 12, 2019.

to be "full and complete mitigation" for impacts to school capacity. The law identifies certain circumstances under which the statutory fee can be exceeded, including preparation and adoption of a "needs analysis," eligibility for State funding, and satisfaction of two of four requirements (post-January 1, 2000) identified in the law including: year-round enrollment, general obligation bond measure on the ballot over the last four years that received 50 percent plus one of the votes cast, 20 percent of the classes in portable classrooms, or specified outstanding debt. Assuming a district qualifies for exceeding the statutory fee, the law establishes ultimate fee caps of 50 percent of costs where the State makes a 50 percent match, or 100 percent of costs where the State match is unavailable. District certification of payment of the applicable fee is required before the City can issue the building permit.

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fees are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

California Green Building Standards Code

The 2022 California Green Building Standards Code, otherwise known as the CALGreen Code (California Code of Regulations [CCR] Title 24, Part 11) is a portion of the California Building Standards Code (CBSC), which became effective on January 1, 2023. The CBSC is adopted every three years by the Building Standards Commission (BSC).

The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen Code standards regulate the method of use, properties, performance, types of materials used in construction, alteration, repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the current CALGreen Code include, but are not limited to, the following measures:

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the Department of Water Resources (DWR) Model Water Efficient Landscape Ordinance (MWELO);
- 65 percent of construction and demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of electric vehicle (EV) charging stations or designated spaces capable of supporting future charging stations; and
- Low-pollutant-emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

The CALGreen Code standards also include voluntary efficiency measures that are provided at two tiers and implemented at the discretion of local agencies and applicants. According to Section

A4.602 of Appendix A4 of the CALGreen Code, CALGreen's Tier 1 standards call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 80 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar-reflective roofs. The City of Winters has not adopted CALGreen's Tier 1 or Tier 2 standards.

Assembly Bill 1327

Assembly Bill (AB) 1327, the Solid Waste Reuse and Recycling Access Act of 1991 requires jurisdictions to adopt ordinances requiring development projects to provide adequate storage area for collection and removal of recyclable materials.

Assembly Bill 1881

AB 1881, the Water Conservation in Landscaping Act of 2006, required the DWR to update the MWELO. Furthermore, AB 1881 required local agencies to adopt the updated model ordinance or an equivalent ordinance by January 1, 2010. If local jurisdictions failed to adopt the updated model ordinance or an equivalent by January 1, 2010, the DWR's updated model ordinance would automatically be adopted by statute. Section 17.76.020 of the City of Winters Municipal Code provides that all landscaping installed in the City of Winters shall comply with the State MWELO (Title 23 CCR Section 490 et seq.), as may be amended, if applicable.

Senate Bill 1383

SB 1383 (2016) directed the California Air Resources Board (CARB) to approve and start implementing a Short-Lived Climate Pollutant (SLCP) strategy to reduce statewide emissions of SLCPs in 2018. Since methane is a SLCP produced from the decomposition of organic waste in landfills, the bill established targets to achieve a statewide 50-percent reduction in the 2014 organic waste disposal level by 2022 and to achieve a 75-percent reduction in the 2014 organic waste disposal level by 2025. Further, where a local jurisdiction has not adopted a more stringent construction and demolition (C&D) ordinance, CBSC (Title 24) requires construction activities to implement Sections 4.408 and 5.408 of the CALGreen Code.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610 – 10656). The Act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually shall prepare and adopt an Urban Water management Plan (UWMP) within a year of becoming an urban water supplier and update the plan at least once every five years. The Act specifies the content that is to be included in an UWMP, and states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. The Act also states that the management of urban water demands and the efficient use of water shall be actively pursued to protect both the people of the State and their water resources. The City of Winters provides water to 2,388 connections, and, therefore, has not adopted an UWMP.[30]

[30] City of Winters. *2022 Water Quality Report*. 2023.

California Integrated Waste Management Act – Assembly Bill 939

To minimize the amount of solid waste that must be disposed of by transformation (i.e., recycling) and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated within the respective County plans, which must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to $10,000-per-day fines.

In 2007, SB 1016 amended portions of AB 939, which allows the California Integrated Waste Management Board (CIWMB) to use per capita disposal as an indicator in evaluating compliance with the requirements of AB 939. Jurisdictions track and report their per capita disposal rates to CalRecycle.

Local Regulations

The following are applicable local regulations related to the proposed project.

City of Winters General Plan

The goals and policies from the City of Winters County General Plan relevant to the proposed project and related to public services and utilities are presented below.

Goal I.A To provide for orderly, well-planned, and balanced growth consistent with the limits imposed by the city's infrastructure and service capabilities and by the city's ability to assimilate new growth.

- Policy I.A.3 The City shall encourage development to occur in a sequence that promotes the efficient use and extension of public facilities and services.
- Policy I.A.4 The City shall link the rate of growth in Winters to the provision of adequate services and infrastructure, including schools. To this end, the City shall prepare and adopt a program to ensure that growth occurs in an orderly fashion and in pace with the expansion of public facilities and services.
- Policy I.A.5 The City shall not approve new development unless the capacity of needed public services and facilities, including school facilities, is sufficient to accommodate that new development or a mechanism that ensures the needed facilities will be available in a timely fashion is in place.

Goal II.D To ensure the provision of adequate services to support existing and future residential development.

- Policy II.D.2 The City shall ensure that new residential development pays its share in financing public facilities and services.

	Policy II.D.4	The City shall strive to ensure that necessary public facilities and services including School District facilities, are available prior to occupancy of residential projects.
	Policy II.D.5	The City shall promote infill residential development where adequate public facilities and services are already in place.
Goal IV.A	To maintain an adequate level of service in the Winters' public facilities and services to meet the needs of existing and future development.	
	Policy IV.A.1	The City shall ensure, insofar as possible, that public facilities and services are developed and operational as they are needed to serve new development.
	Policy IV.A.3	The City shall ensure through capital facility planning and budgeting and through review of private development projects that City-adopted level of service standards are maintained.
	Policy IV.A.4	The City shall ensure through a combination of development fees and other funding mechanisms that new development pays its fair share of the costs of developing new facilities and services. The City at its sole discretion may allow developers to construct needed improvements according to City specification in lieu of paying development fees for such improvements.
Goal IV.B	To maintain an adequate level of service in the City's water system to meet the needs of existing and future development.	
	Policy IV.B.2	The City shall maintain a regular program for replacing older water pipes.
	Policy IV.B.4	The City shall maintain a regular program for inspecting and testing fire hydrants.
	Policy IV.B.10	The City shall participate in an areawide groundwater management study.
	Policy IV.B.12	The City shall, to the extent practical, require the use of drought-tolerant plant species and drip irrigation systems in the landscaping of new public and private open space areas, common areas, and parks.
	Policy IV.B.13	The City shall promote the use of treated sewage effluent for public and private landscape maintenance and agricultural irrigation.
	Policy IV.B.14	The City shall require water meters on all new hook-ups and shall develop a meter retrofit program for existing connections.

Goal IV.C To maintain an adequate level of service in the City's sewage collection and disposal system to meet the needs of existing and future development.

Policy IV.C.2 The City shall ensure the provision of adequate sewer service to all new development in the city.

Goal IV.D To maintain an adequate level of service in the City's storm drainage system to accommodate runoff from existing and future development and to prevent property damage due to flooding.

Policy IV.D.2 The City shall expand and develop storm drainage facilities to accommodate the needs of existing and planned development.

Policy IV.D.5 Future drainage system discharges, including discharges into Putah Creek, shall comply with applicable state and federal pollutant discharge requirements.

Goal IV.F. To ensure that an adequate level of police service is maintained as new development occurs.

Policy IV.F.1 The City shall, through adequate staffing and patrol arrangements, endeavor to maintain the minimum feasible response times for police calls. The goal for average response time for Priority 1 (emergency) calls shall be three minutes.

Goal IV.H To provide public schools which serve as a neighborhood focus and to maintain a quality learning environment for Winter's residents as the city's population increases.

Policy IV.H.4 The City shall cooperate with the School District in an effort to ensure adequate financing for new school facilities. To this end, the City shall cooperate with the School District in the collection of school facility development fees from new residential and non-residential development.

Policy IV.H.6 The City shall not approve any development entitlements, including building permits for new residences, unless a mechanism to mitigate school impacts generated by the project has been approved by the City. This mechanism may include the dedication of land, development fees, a commitment to funding through an assessment district or Mello-Roos Community Facilities II-32 District, the phasing of the project, reduction in density, or some other mechanism which mitigates or avoids the school impacts attributable to the development.

Goal IV.J To promote efficiency, convenience, and harmonious relationships in the siting of public facilities.

Policy IV.J.2 Utility company rights-of-way shall be considered for use as public or private open space, trails, parkland, or other compatible recreational uses.

Policy IV.J.3 The City shall require all new electrical and communication lines to be installed underground. The City shall actively promote the undergrounding of existing overhead facilities.

Goal VII.C To prevent loss of life, injury, and property damage due to wildland and structural fires, explosions and release of hazardous materials.

Policy VII.C.1 The City shall require that new development provides all necessary water service, fire hydrants, and access roads consistent with Fire Protection District standards.

Policy VII.C.2 The City shall endeavor to achieve and maintain adequate water fire-flows throughout the city and shall regularly monitor fire-flows to ensure adequacy. New development shall comply with the following minimum fire-flow rates:

Development Category	Gallons Per Minute
Single-Family Residential	1,500
Multi-Family Residential	1,500
Central Business District	2,000
Industrial/Other Business Districts	3,000

In areas where there are existing water system deficiencies, the City shall require new development to install all on-site water system improvements necessary to achieve the above fire-flow rates but may waive full compliance with these standards until existing water system deficiencies are corrected.

Policy VII.C.4 All new development shall be constructed according to fire safety and structural stability standards contained in the latest adopted Uniform Fire and Building Codes and related regulations.

Policy VII.C.5 To minimize the dependence of new developments on City firefighting personnel and equipment, the City may require installation of built-in fire suppression equipment in all new development.

Policy VII.C.6 The City shall require property owners to remove fire hazards, including vegetation, hazardous structures and materials, and debris, as directed by the Fire Protection District and Public Works Department.

Policy VII.C.7 The City shall ensure that new development provides for adequate fire equipment access and, where appropriate, includes the use of fire-resistant landscaping and building materials.

Recreational and Cultural Resources

Goal V.A To establish and maintain a public park system and recreation facilities suited to the needs of Winters' residents and visitors.

Policy V.A.2 To the extent authorized by law, the City shall require all new residential development to dedicate improved parkland or pay equivalent in-lieu fees based on a standard of five acres of improved parkland per 1,000 population. Golf course development and creek setbacks shall not be counted toward meeting the park dedication requirement.

Policy V.A.3 New residential developments shall be required to fund park maintenance through a landscaping and lighting district or other appropriate mechanism.

Policy V.A.5 Neighborhood parks shall be integrated into, and become focal points of, new residential neighborhoods.

Policy V.A.9. Parks shall be located, oriented, and designed in such a way as to facilitate security, policing, maintenance, and pedestrian bicycle access.

Policy V.A.13 The City shall emphasize the use of drought-tolerant and drought-resistant landscaping in the development of City parks.

Policy V.A.14 The City shall encourage the use of open space and recreational uses as buffers between incompatible land uses.

Goal V.B To promote the provision of private recreational facilities and opportunities.

Policy V.B.1 The City shall promote the provision of private open space and recreation facilities in large-scale residential developments.

City of Winters Municipal Code

Sections from the City of Winters Municipal Code related to public services and park and recreational facilities are discussed below.

Drainage Impact Fee

Chapter 15.90, Drainage Impact Fee, of the City of Winters Municipal Code establishes a drainage impact fee which shall be imposed on all new development that will be served by the new facilities. This fee shall be imposed on all development within the City, unless such property is otherwise exempt as provided for in Section 15.90.070.

Parks and Recreation Dedications and Fees

Chapter 16.08, Parks and Recreation Dedications and Fees, of the City of Winters Municipal Code requires that where a recreational or park facility has been designated in the General Plan, Specific Plan or Master Plan, and is to be located in whole or in part within the proposed subdivision to serve the immediate and future needs of the residents of the subdivision, the subdivider shall dedicate land for a local recreation or park facility sufficient in size and topography to serve the residents of the subdivision. The portion to be dedicated must be sufficient to provide five acres of parkland per 1,000 residents of the subdivision. If there is no park or recreational facility designated in the General Plan or any existing parks and recreation plan to be located in whole or in part within the proposed subdivision, and/or where the City Council requires the payment of in lieu fees, the project proponent shall pay a fee equal to the amount as set by resolution of the City Council. Fees collected shall be used for the purpose of developing new or rehabilitating existing park or recreational facilities.

City of Winters Water Master Plan Update

The City is currently in the process of updating the City's Water Master Plan, which was last adopted in 2006. Technical memorandums have been prepared by Woodard & Curran Inc. to be incorporated into the Water Master Plan Update, each of which are discussed below.

Desktop Condition Assessment

The Desktop Conditions Assessment Technical Memorandum evaluates the available information regarding the City's water facilities, and provide recommendations for rehabilitation and repair.[31] Recommendations for the City include replacing the four-inch cast iron pipe according to the schedule identified in the June 2022 CIP, and continuing the replacement until all cast iron piping has been replaced; improving the City's data collection and monitoring; and conducting general inspection video surveys of all wells to document well conditions, and for well rehabilitation to be conducted on about a 10-year frequency, if supported by the video survey.

Capacity Evaluation

The Capacity Evaluation Technical Memorandum discusses performance and design criteria, model development, and summarizes capacity improvement needs.[32] Pursuant to Section 64554 of CCR Title 22, Chapter 16, a public water system's water sources must have the capacity to meet the system's maximum day demand (MDD) at all times. For water systems using only groundwater, such as the City of Winters, the system must be capable of meeting MDD with the highest-capacity source offline. Therefore, the Water Master Plan: Capacity Evaluation evaluated pressures with the nearest or largest well out of service. Recommended improvements include replacing both the six-inch pipe on Riverview Court and the six-inch pipe on Plum Place with eight-inch pipes to meet fire flow requirements as part of the City's annual pipe replacement program. The other areas where fire flow requirements were not met are to be addressed through currently planned projects. In addition, once Well 8 comes online, the City will have a greater ability to meet capacity in the event that one of the larger wells (e.g. Well #7) is offline.

The memo also summarized water consumption and well production within the City, and determined that all recent and future developments, including the proposed project would result in an average water demand of 350 AFY, with existing wells producing an average of 1,314 AFY of water from 2017 to 2023.

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31 Woodard & Curran, Inc. *City of Winters Water Master Plan: Desktop Condition Assessment*. February 9, 2024.
32 Woodard & Curran, Inc. *City of Winters Water Master Plan: Capacity Evaluation*. February 9, 2024.

Groundwater Sustainability Assessment

The Groundwater Sustainability Assessment Technical Memorandum provides an overview of the City's existing water demand and supply conditions and future water demand for the new developments and assesses the sustainability of the City's groundwater supply considering the existing and future demands associated with new and proposed residential developments in the City.[33]

The assessment relies substantially on the information documented in the Yolo Subbasin GSP and other relevant reports and pertinent publicly available data. The assessment determined that the City's estimated additional pumping for the total planned residential developments through 2029 would be 403 AFY, including 143 AFY for the areas already developed and 260 AFY for the remaining future developments, including the proposed project. The estimated additional pumping amount of 403 AFY is a small change in pumping from a basin management perspective. The sustainable yield for the Yolo Subbasin is estimated to be 346,000 AFY, based on the average annual pumping over the 48-year period of water years 1971-2018, as reported in the GSP. The City's additional future pumping is not anticipated to result in significant and undesirable impacts on the long-term sustainability of the Subbasin. Given the portion of the City's pumping is already extracted for the completed developments in 2022, pumping effects on the local basin are already reflected in the most recent groundwater conditions. Based on the current conditions, groundwater levels near the City are above the minimum thresholds set by the GSP. In addition, the City's increased demand for future developments was already considered under the GSP future scenarios.

4.8.4 IMPACTS AND MITIGATION MEASURES

The section below describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to public services and utilities. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, determination of significant impacts is based on whether the proposed project would result in the following:

- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    - Fire protection;
    - Police protection;
    - Schools;
    - Parks;
    - Other public facilities;
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;

[33] Woodard & Curran, Inc. *City of Winters Water Master Plan: Groundwater Sustainability Assessment*. February 9, 2024.

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;
- Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

Method of Analysis

In order to determine the potential for the project to result in substantial adverse impacts associated with the provision of new or altered government facilities, relevant public services and utilities planning documents were reviewed, including, but not limited to, the City of Winters General Plan Policy Document, General Plan Background Report, the City of Winters General Plan EIR, and direct communication with service providers, including the WFD, WPD, and the WJUSD. In addition, the Water Demand Memo and associated Hydraulic System Analysis (see Appendix K), the Storm Drainage Assessment (see Appendix L), and the Sewer Demand Memo (see Appendix M) prepared for the proposed project by Wood Rodgers, as well as the technical memorandums prepared by Woodard and Curran, Inc. as part of the City's Water Master Plan Update, were used to assess project-specific impacts related to the proposed water supply, sewer services, and storm drainage that would be provided to the project.

Below are descriptions of the methodologies used in the technical reports prepared to assess impacts to utilities and service systems associated with the currently proposed project. The results of the impact analyses were compared to the standards of significance discussed above in order to determine the associated level of impact.

Water System Hydraulic Analysis and Water Demand Memo

Woodard and Curran, Inc. prepared a Water System Hydraulic Analysis for the proposed project in September 2021 to assess whether the City of Winters' potable water system has sufficient distribution and supply capacity to serve the additional demands in the proposed project (see Appendix A of Appendix L of this EIR). The City's water distribution model was run under the scenarios described in the 2015 Water Supply Analysis Technical Memorandum. Each scenario reflects a specific demand condition, in addition to a fire flow at a specific location. As described in the 2020 Water Demands Assessment, additional future developments, assumed to be constructed prior to the prosed project, were added to the model as part of the updated existing conditions. For each of the model scenarios, demands were adjusted to represent the existing conditions scenario or to include the water demand of the proposed project.

As part of Wood Rodgers' evaluation of the 2021 Water System Hydraulic Analysis, the water demand data was determined to be incorrect. The 2021 Water System Hydraulic Analysis incorrectly reported the Park demand factor, and residential and commercial demands.

In the intervening years since the 2021 Water System Hydraulic Analysis was prepared, the lotting configuration was changed with the current Tentative Subdivision Map, dated January 10, 2024. The current Tentative Subdivision Map has fewer overall residential units and commercial space; however, the public irrigated parks and other landscape areas have increased. Through the February 2024 Water Master Plan Update: Capacity Evaluation Technical Memorandum, the peaking factors for maximum day and maximum hour demands were revised. While the peak day and peak hour factors used in the 2021 Water System Hydraulic Analysis were 2.35 and 3.53, respectively, the peaking factors used to calculate maximum day and peak hour demands, discussed under Impact 4.8-7, are 2.30 and 3.45.

Based on the peak hour water demand from the 2021 Water System Hydraulic Analysis (303.4 gpm) and the 2024 TSM (305.6 gpm), the water demands from the currently proposed project slightly increase. The estimated water usage increased from 139 AFY to 143 AFY. The aforementioned increases are insignificant at 0.7 percent for peak hour and 2.9 percent for AFY; therefore, the conclusion of the 2021 Water System Hydraulic Analysis that the size of new Well #8 is adequate remains applicable to the proposed project.

Storm Drainage Assessment

The Storm Drainage Assessment was prepared to evaluate an interim drainage solution which allows the proposed project to move forward before all City facilities are fully implemented as part of the City SDMP. An interim solution, discussed in detail under Impact 4.8-6, seeks to construct the minimum combination required of the ultimate facilities and interim facilities, to establish the most cost-effective project.

Attachment A of the Storm Drainage Assessment, the Water Quality Design Approach Technical Memorandum, addresses the design approaches to be taken by the project applicant to comply with the State Storm Water Resources Control Board's General Construction Permit Order 2009-0009-DWQ (amended by 2010-0014-DWQ & 2012-0006-DWQ). The Post-Construction Water Balance Calculator was used as a basis for determining water quality compliance for the General Construction Permit.

Sewer Demand Memo

A technical memorandum was prepared in October 2017 to discuss the ability of the City's Gateway Sewer Pump Station and East Street Sewer Pump Station (ESPS) to safely convey the proposed project's sewer demands to the WWTF. (see Appendix A of Appendix M of this EIR). The City's Wastewater Collection System Master Plan was used to determine equivalent dwelling units (EDUs) and PWWFs for the proposed project. The PG&E Gas Operations Technical Training Center Water Use and Wastewater Demand Estimates and I-505 Gateway Sewer Improvement Allocation and Allocation Plan were used to determine demand and capacity allocations of the City's Gateway Sewer Pump Station, and are provided within Appendix A of Appendix M of this EIR.

The Sewer Demand Memo prepared in June 2024 for the proposed project determined that due to the changes of the Tentative Subdivision Map since the 2017 technical memorandum, the proposed project has overall fewer residential units and commercial space than previously planned. The Sewer Demand Memo revised the 2017 memorandum to determine the updated sewer demand of the currently proposed project.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the proposed project in comparison with the standards of significance identified above.

4.8-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. Based on the analysis below, the impact is *less than significant*.

In general, the proposed project would result in a mixed-use development community, including a subdivided 188-unit single-family residential community, a 57-unit townhome community, an 84-unit multi-family residential complex, and three commercial lots totaling 3.3 acres. Therefore, the proposed project would increase the available housing and commercial uses within the City of Winters, which would increase the demand for fire protection services. As previously discussed, the relevant CEQA threshold pertains to whether new or physically altered facilities are needed to meet response times or other performance objectives, the construction of which could cause environmental impacts.

Fire protection services for the project site would be provided by WFD from Station 26, located at 700 West Main Street. Station 26 is located approximately one mile to the southwest of the project site. Although implementation of the proposed project would increase the number of structures protected by the WFD, the existing WFD facilities would likely be adequate to serve the proposed project, and a new station or alteration of the existing station would not be necessary in order to adequately serve the proposed project.[34]

As discussed above, WFD collects a development impact fee specific to fire services within the WFD service area. Effective July 1, 2024, the WFD Impact Fee $2,285.02 for each low-density residential unit, $2,086.89 for each medium density residential unit, $2,937.82 for each medium high density residential unit, $1,788.77 for each high-density residential unit, and $1.14 for each square foot (sf) of neighborhood commercial development. The proposed project would be required to pay applicable development fees for the provision of equipment and staffing required to serve the proposed project.

Although implementation of the proposed project would increase the amount of building space within the project site, all structures included in the proposed project would be constructed consistent with Chapter 15.20 of the City's Municipal Code, Fire Code. In compliance with the CFC (specifically Section 903.2.1.3, Group A-3), the design of the residences would include the installation and use of automatic fire sprinklers, and fire alarm systems would be incorporated pursuant to CFC requirements. Such features would reduce the potential for fires to occur within the

[34] Personal communication [email] with David A. Storer, MCRP, AICP, Development Advisory Services, Inc. and Rod Stinson, Vice President, Raney Planning and Management, Inc. July 18, 2024.

proposed structures, which would reduce the demand for fire protection services from the project site.

Based on the above, development of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection services and/or facilities, the construction of which could cause significant environmental impacts, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.8-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services. Based on the analysis below, the impact is *less than significant*.

The proposed project is located within the jurisdiction of and would be provided services by the WPD. As described above, the proposed project would be served by the WPD Station, located at 702 West Main Street, approximately one mile southwest of the project site.

While the proposed project would result in additional calls for service due to increased population, and additional complaints and directed traffic enforcement due to increased traffic, the WPD has indicated that new or physically altered law enforcement facilities would not be needed to adequately serve the proposed project and the WPD has the capacity to respond to calls for service at the project within the applicable response time goal.[35]

In addition, though response times are dependent upon the location of patrol officers at the time of the emergency call, on average, response times to the project site would be anticipated to be within the City of Winters General Plan's three-minute response time standard. As a result, the proposed project would not result in a need for new, or improvements to existing, police protection facilities, the construction of which could cause significant environmental impacts.

Based on the above, development of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection services and/or facilities, the construction of which could cause significant environmental impacts, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

[35] Personal communication [email] with Kirk Skierski, Senior Planner, City of Winters Planning Division and John P. Miller, Police Chief, Winters Police Department. August 30, 2023.

4.8-3 Result in substantial adverse physical impacts associated with the provision of new or physically altered school services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or performance objectives. Based on the analysis below, the impact is *less than significant*.

The proposed project would develop a total of 329 residential units within the WJUSD. According to the Fall 2023 Facilities Master Plan, student generation rates per single-family household for the WJUSD are 0.176 for grades kindergarten through five, 0.055 for grades six through eight, and 0.076 for grades nine through 12. Student generation rates per multi-family household for the WJUSD are 0.290 for grades kindergarten through five, 0.290 for grades six through eight, and 0.194 for grades nine through 12.[36] Thus, the proposed project is expected to generate approximately 68 students in kindergarten through grade five, 38 students in grade six through grade eight, and 35 students in grades nine through 12 (see Table 4.8-3).

As shown in Table 4.8-3, the proposed project would not increase the student population of any school within the WJUSD over the available capacity of any school.

Table 4.8-3
Enrollment, Capacity, and Student Generation by School*

School	Existing Enrollment	Students Generated by Project	Project Plus Existing Enrollment	Capacity
Winters High School	493	35	528	729
Winters Middle School	340	38	378	594
Shirley Rominger School	346	34**	380	500
Waggoner Elementary School	389	34**	423	475

* Excluding Wolfskill Career Readiness Academy, an alternative education high school on the same campus as Winters High School
** Students generated by the proposed project for grades kindergarten through grade five divided in half between Shirley Rominger School and Waggoner Elementary School

Source: Winters Joint Unified School District, Fall 2023.

As discussed above, The WJUSD collects a development impact fee specific to school facilities. Effective May 20, 2024, the WJUSD Impact Fee is $5.17 per sf of residential development, and $0.84 per sf of commercial development. The proposed project would be required to pay all applicable fees to the WJUSD.

[36] Winters Joint Unified School District. *Facility Master Plan.* Fall 2023.

According to SB 50, payment of the necessary school impact fees for the project would be considered full and satisfactory CEQA mitigation. As discussed previously, proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […] involving […] the planning, use, or development of real property" (Government Code 65996[b]).

Based on the above, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or performance objectives for maintenance of schools, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.8-4 Result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Based on the analysis below, the impact is *less than significant*.

As noted above, the project would include the construction of 188 single-family homes, 57 townhome units, and 84 multi-family units. According the U.S. Census Bureau, the City of Winters has an average of 2.97 persons per household,[37] and, therefore the proposed project would be anticipated to house approximately 978 new residents on the project site. Such residents could increase demand on existing parks and recreational facilities, potentially requiring provision of new facilities or expansion of existing facilities.

The City of Winters General Plan requires dedication of land and/or payment of fees in accordance with State law to ensure funding for the acquisition and development of public recreation facilities. General Plan Policy V.A.2. requires all new residential development to dedicate improved parkland or pay equivalent in-lieu fees based on a standard of five acres of improved parkland per 1,000 residents. Consistent with goals and policies in the General Plan, Chapter 16.08 of the City of Winters Municipal Code requires dedication of land for park or recreational purposes, or a fee paid in lieu thereof, or a combination of both, as a condition of approval for final subdivision or parcel maps. The land areas required for dedication may be up to an amount equivalent to the land necessary to provide five acres of parkland per 1,000 residents of the proposed subdivision.

[37] United States Census Bureau. *QuickFacts Winters city, California*. Available at: https://www.census.gov/quickfacts/winterscitycalifornia. Accessed August 2024.

As part of the proposed project, a total of three lots (Lots D, E, and F) are to be designed and constructed by the City of Winters with park uses, with lots ranging in size from 0.8-acre to 3.9 acres, comprising a total of 6.1 acres. The City would be responsible for the installation of park facilities, irrigation systems, walkways, hardscaping, trails, lighting, and landscaping within the park lots. Lot F would contain a 12-foot-wide bike trail.

The anticipated 978 new residents would require approximately 4.89 acres of improved parkland. Thus, a total of 6.1 acres of parkland within the project site for the 978 new residents would meet the City's parkland requirement, and the proposed project would not be subject to City park dedication in-lieu fees.

Given that the proposed project would include development of enough parkland and trails to meet the demand created by future residents, the project would not be anticipated to substantially increase demand on existing or future parks or recreational facilities in the surrounding area. Therefore, the proposed project would not result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of such facilities would occur or be accelerated, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.8-5 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or performance objectives for maintenance of public facilities, including roads, or for other government services. Based on the analysis below, the impact is *less than significant*.

The following section describes the proposed project's potential adverse physical effects associated with maintenance and construction of City roads, library facilities, and other public facilities and services.

Roads

The proposed project would result in the construction of a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex, three commercial lots, park uses, a new drainage channel, new landscaping, frontage improvements, and associated infrastructure, including an internal road network that would connect to the public roadway system (SR 128 and Broadview Lane). In addition, east of the proposed East Main Street, the project would include construction of a new 12-foot-wide right-turn lane along SR 128. All roadway improvements included in the proposed project would be funded by the project applicant. In addition, the project applicant would be required by the City to pay a Transportation Impact Fee. The Transportation Impact Fee, along with other Development Impact Fees levied by the City, is intended to fund and sustain necessary

improvements resulting from the increase in traffic generated by new development, such as road widening or signalization of intersections.

While project-generated traffic could result in an incremental increase in maintenance of City roads in the project area, such an increase would be negligible. Payment of Transportation Impact Fees by the applicant prior to the issuance of building permits for the proposed project, as well as payment of applicable taxes by future project residents, would minimize any adverse physical impacts associated with maintenance of existing City roads or construction of new City road facilities.

Libraries and Other Public Facilities and Services

Yolo County Library maintains public facilities such as the Winters Community Library, located at 708 Railroad Avenue, approximately 0.4-mile east of the project site, which could potentially be used by residents of the proposed project. While the proposed project's increase to the City's population could result in increased demand for services offered by the Winters Community Library, future residents would be subject to the County's property tax. Pursuant to Chapter 14, County Facilities Authorization and Fee, in Title 3, Finance, of the County's Code of Ordinances, the tax is imposed on residential projects and commercial improvements within the County. Revenues generated by Yolo County property taxes, State funds, and library fees are then used for County-wide library programs and operations. Payment of all applicable fees and taxes would ensure the proposed project results in a less-than-significant impact related to other public facilities.

Conclusion

Based on the above, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or performance objectives for maintenance of public facilities, including roads, or for other government services. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.8-6 Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Based on the analysis below, the impact is *less than significant*.

The following sections describe the water, wastewater treatment, stormwater drainage, electric power, natural gas, and telecommunications facilities improvements that would be necessary to serve the proposed project.

Water Supply Infrastructure

Figure 3-7 the Project Description of this EIR provides an overview of the proposed water and sewer improvements. As shown therein, water service would be provided to the proposed project by the City of Winters through new connections to the existing 12-inch water line in Overhouse Drive west of the project site, the existing eight-inch water line in Broadview Lane west of the site, and the existing 14-inch water line in SR 128. Newly installed water lines within the proposed interior streets would connect to the aforementioned existing water lines in the project vicinity and would consist of eight- or 12-inch diameter pipes.

The Water System Hydraulic Analysis prepared for the proposed project (see Appendix A of the Water Demand Memo)[38] determined that while the proposed project would exacerbate existing fire flow demand deficiencies, the deficiency would be eliminated once the new Well #8 is operational. Additional improvements would not be needed to support the fire flow demand of the proposed project, and the size of the new well would not need to change.

Installation of the new water supply infrastructure would occur either in areas that have been previously disturbed as part of development of the existing roadways, or in areas proposed for disturbance as part of development of the proposed project. All potential physical environmental impacts that could result from implementation of the proposed project, including new utility infrastructure, have been evaluated throughout the technical chapters of this EIR. In addition, the new water infrastructure would be designed and constructed in accordance with the applicable standards set forth by the City of Winters Standard Specifications, Division I, Section 8 (Water Systems Design), ensuring the new water lines are constructed in conformance with proper materials and sizing.[39] Implementation of applicable mitigation measures included throughout this EIR would ensure that construction of the proposed connections to the existing water lines would not cause significant impacts. Based on the above, the proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects, and a less-than-significant impact would occur.

Wastewater Conveyance Infrastructure

The proposed project would include new connections to the existing infrastructure in the project vicinity (see Figure 3-7 in the Project Description Chapter of this EIR). All structures proposed as part of the project would convey wastewater flows through new sewer laterals to new eight-inch sewer lines installed within the internal street system. From the new sewer lines, flows would be conveyed to a new sewer lift station located within the Lot D park. From the new lift station, wastewater would be pumped through a new six-inch force main to an existing eight-inch sewer main located within the SR 128/Timber Crest Road intersection, which conveys flows southeast to an existing lift station located within the PG&E Gas Safety Facility, the GSP. From the GSP, wastewater is ultimately pumped to the City's WWTF, located at the northwest edge of the City limits.

[38] Woodard & Curran. *Skreden Farmstead Development Water System Hydraulic Analysis*. September 13, 2021.
[39] City of Winters. *City of Winters Standard Specifications*. September 2021.

As discussed, all potential physical environmental impacts that could result from implementation of the proposed project, including connection to existing sewer lines, have been evaluated throughout the technical chapters of this EIR. In addition, the new sewer infrastructure would be designed and constructed in accordance with the applicable standards set forth in the City of Winters Standard Specifications, Division I, Section 7 (Sanitary Sewer Design), which would ensure that new wastewater infrastructure is constructed in conformance with proper materials and sizing.

Installation of the new wastewater supply infrastructure would occur either in areas that have been previously disturbed as part of development of the existing roadways, or in areas proposed for disturbance as part of development of the proposed project. Additionally, implementation of applicable mitigation measures included throughout this EIR would ensure that construction of utility improvements would not cause significant impacts. All potential physical environmental impacts that could result from implementation of the proposed project, including new utility infrastructure, have been evaluated throughout the technical chapters of this EIR.

Based on the above, development of proposed project would not require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects, and a less-than-significant impact would occur.

Storm Drainage

The proposed project would include new on-site stormwater facilities to detain and treat stormwater runoff from the site's new impervious surfaces, as well as runoff from adjacent properties. Runoff from the project site would be directed to inlets installed primarily within the internal street system, which would convey flows through new storm drain lines measuring 12 or 54 inches in diameter to the 3.9-acre Lot E park. The easterly half of the Lot E park would be designed to be approximately nine feet below pad grade and sized to contain a 10-year storm event at depths ranging from two to five feet. The westerly half of the park would be approximately four to seven feet below pad grade to further detain runoff during storm events. Following a 100-year storm event, the Lot E park is anticipated to require one to two days to drain. A low-flow swale would be constructed to convey peak flows from the park eastward to the Lot G drainage channel. From the drainage channel, stormwater flows would be conveyed southward through proposed box culverts under SR 128 to the detention basin adjacent to the PG&E Gas Safety Facility, which ultimately discharges to Putah Creek.

In 2022, Wood Rodgers prepared a Draft SDMP for the northeast corner of the City. Under the ultimate plan outlined in the SDMP, the proposed project could drain runoff to the proposed Putah Creek Diversion Channel without on-site flood detention being required. The on-site runoff from the proposed project would occur prior to the occurrence of peak flows from the north (flows that originate from overspill at Chickahominy Slough). However, storage is necessary for conveying flows emanating from the north. The SDMP identifies a channel facility that is aligned through the project site for conveying drainage flows emanating from Chickahominy Slough to Putah Creek. The SDMP facility is a regional project benefitting a significant number of other properties within the City's General Plan.

While the Putah Creek Diversion Channel offers a way of conveying on-site generated runoff safely to Putah Creek, the diversion channel alone does not protect the proposed project from adverse flood impacts. The SDMP also identifies levees, channels, weirs, and detention basins to the north of the project site that act together with the Putah Creek Diversion Channel as a drainage system, to protect all lands within the City's General Plan. The City is anticipated to update the drainage impact fees, which will allow a mechanism for sharing the financial burden of constructing the updated ultimate facilities. Constructing all the ultimate SDMP facilities required to protect the proposed project is more than the fair-share contribution of just the project itself. Therefore, the Storm Drainage Memo evaluated an interim drainage solution which allows the proposed project to move forward until all ultimate facilities can be fully implemented.

Interim drainage solutions for the proposed project include a flood barrier and overflow weir, an on-site detention basin, and downstream channel/culvert improvements. The interim drainage solutions and the preliminary grading and drainage layouts produce peak flow and water surface elevations that are contained on the project site, and would not adversely affect upstream, adjacent, or downstream properties. The transition from interim conditions to SDMP buildout conditions would not require any changes to the proposed project. Therefore, the proposed project would have sufficient capacity to store stormwater flow and would not result in off-site flooding.

Installation of the new storm drainage infrastructure would occur either in areas that have been previously disturbed as part of development of the existing roadways, or in areas proposed for disturbance as part of development of the proposed project or the SDMP. Additionally, implementation of applicable mitigation measures included throughout this EIR would ensure that construction of utility improvements would not cause significant impacts. All potential physical environmental impacts that could result from implementation of the proposed project, including new utility infrastructure, have been evaluated throughout the technical chapters of this EIR.

Based on the above, development of the proposed project would not require or result in the relocation or construction of new or expanded storm drainage facilities, the construction or relocation of which could cause significant environmental effects, and a less-than-significant impact would occur.

Electricity, Natural Gas, and Telecommunications Infrastructure

The proposed project would be provided electricity and natural gas by PG&E and internet service by Xfinity. The proposed project would include new connections to existing electrical, natural gas, and telecommunications infrastructure located in the project vicinity. Existing electrical and telecommunication lines are currently located along SR 128. In accordance with Winters Municipal Code Section 16.20.020, existing aboveground infrastructure would be undergrounded, and new natural gas, electricity, and telecommunications infrastructure would be extended into the project site within the internal street system. Given the proximity of existing electricity and natural gas lines to the project site, substantial extension of new infrastructure would not be required.

Based on the above, development of the proposed project would not require or result in the relocation or construction of new or expanded electricity, natural gas, and

telecommunications facilities, the construction or relocation of which could cause significant environmental effects, and a less-than-significant impact would occur.

Conclusion

Based on the above, development of proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.8-7 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Based on the analysis below, the impact is *less than significant*.

The proposed project would include development of a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex; three commercial lots totaling 3.3 acres; 6.9 total acres of park uses; and various associated improvements. Thus, the project would result in increased demand for water supplies relative to existing conditions.

Water consumption and well production data over the last six years is shown above in Table 4.8-2. As shown therein, wells within the City have produced sufficient water supply to support water consumption demands, and a deficit has not occurred.

According to the 2024 Capacity Evaluation prepared as part of the Water Master Plan Update, new residential developments, including the proposed project, are planned in the City of Winters, and several new developments have come online in the last couple of years. The additional water demand for the new and recent developments include the following:

- Approximately 77 gpm, or 124 AFY for recent developments;
- Approximately 140 gpm, or 226 AFY for future new developments; and
- A total of approximately 214 gpm, or 350 AFY for both future and recent developments.

According to the Water Demand Memo prepared for the proposed project, as shown in Table 4.8-4, the maximum total water demand associated with the proposed project would be approximately 203.8 gpm, or 142.8 AFY.

The Groundwater Sustainability Assessment Technical Memorandum determined that the City's estimated additional pumping for the total planned residential developments through 2029 would be 403 AFY, including 143 AFY for the areas already developed and 260 AFY for the remaining future developments, including the proposed project. The City's additional future pumping is not anticipated to result in significant and undesirable results on the long-term sustainability of the Yolo Subbasin.

Table 4.8-4
Average Day, Maximum Day, and Peak Hour Water Demand

Land Use	Units	Acres	Flow Factor (gpd)[1]	Average Annual Demand (AFY)	Average Day Demand (gpm)	Maximum Day Demand (gpm)	Peak Hour Demand (gpm)
Single-Family Residential	188	27.9	270	56.9	35.3	81.2	121.8
Multi-Family Residential	141	9.4	150	23.7	14.7	33.8	50.7
Commercial	--	2.9	2,038	6.6	4.1	9.4	14.1
Parks, Landscaping Lots, Paseos and Park/Basin	--	7.4	6,704	55.6	34.5	79.4	119.0
Non-irrigated	--	14.3	0	0	0	0	0
Total	**329**	**61.9**	**--**	**142.8**	**88.6**	**203.8**	**305.6**

[1] Gpd per unit or acre.

Source: Wood Rodgers, 2024.

Given the portion of the pumping is already extracted for the completed developments in 2022, effects on the local basin are already reflected in the most recent groundwater conditions. Based on the current conditions, groundwater levels near the City are above the minimum thresholds set by the GSP. In addition, the City's increased demand for future developments was already considered under the GSP future scenarios. Therefore, sufficient groundwater supplies exist to serve development of the proposed project.

Based on the above, sufficient water supplies would be available to available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.8-8 Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Based on the analysis below, the impact is *less than significant*.

A technical memorandum was prepared in October 2017 to discuss the ability of the City's Gateway Sewer Pump Station and ESPS to safely convey the proposed project's sewer demands to the WWTF (see Appendix A of Appendix M of this EIR). The original purpose of the memorandum was to determine whether or not the ESPS has sufficient capacity in the short- and long-term to safely accept the sewer demands from the proposed project. However, an alternative was developed that provides zero impact to the ESPS by reallocating all of the proposed project's sewer demand to the City's Gateway Sewer Pump Station sewer shed because the PG&E Gas Safety Facility located to the southeast of the project site was not developed with the demand anticipated by the Sewer Master Plan, resulting in 182 gpm of unused capacity. The technical memorandum concluded that reallocating all wastewater flow from the proposed project to the Gateway Sewer Pump Station would exceed the capacity of the Gateway Sewer Pump Station by eight gpm.

However, the Sewer Demand Memo prepared in June 2024 for the proposed project determined that due to the changes of the TSM since the 2017 technical memorandum, the proposed project has overall fewer residential units and commercial space than previously planned.

Wastewater from the proposed project would be conducted to the Gateway Sewer Pump Station, which has a capacity of 400 gpm. According to the Sewer Demand Memo and shown in Table 4.8-5, the proposed project would include development of 335 EDUs, which would result in a total PWWF of 251 gpm, equal to 0.36 mgd, a decrease of eight gpm from the 2017 technical memorandum. Therefore, adequate capacity exists at the Gateway Sewer Pump Station to serve the wastewater flows of the proposed project.

As discussed above, wastewater from the project site would be treated at the WWTF, which is operated by the City of Winters. The WWTF treats wastewater through a two-stage aerated pond system, which includes a polishing pond and chlorination facilities for disinfection. Final effluent is stored in either four storage ponds, disposed of on 170 acres of spray fields, or provided to farmers for crop irrigation. Under 2036 buildout conditions, the WWTF will be sized to accommodate 9.7 mgd of PWWF.

Table 4.8-5
Proposed Project Peak Wet Weather Flow Sewer Demand

Land Use	Acres	Equivalent Dwelling Units	PWWF (gpm)
Low and Medium Density Residential (Single-Family)	39.4	188	140
High Density/Townhome Residential (Multi-Family)	10.1	121	84
Commercial	3.3	26	19
Parks and Park/Detention	6.0	--	5
Other	3.1	--	3
Total	**61.9**	**335**	**251**

Source: Wood Rodgers, 2024.

Given that the City's WWTF has an existing PWWF capacity of 6.0 mgd[40] and a future buildout capacity of 9.7 mgd, the City would have adequate capacity to serve the project's wastewater treatment demands in addition to the City's existing commitments.

Based on the above, the proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate wastewater treatment capacity to serve the project's projected demand in addition to the provider's existing commitments. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.8-9 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste. Based on the analysis below, the impact is *less than significant*.

Solid waste collected in the City of Winters is delivered to the YCCL where waste is processed, recyclables are recovered, and residuals are disposed. The proposed project would generate solid waste associated with construction activities as well as from future residents of the proposed project. Construction debris would be disposed

[40] City of Winters. *Wastewater Treatment Facility Master Plan Update*. June 2018.

of in accordance with applicable federal, State, and local regulations and standards. Solid waste collection services would be provided by WM.

As described above, as of July 2022 the currently permitted 724.5-acre YCCL has a remaining capacity of 33,544,909 cubic yards, the maximum permitted throughput is 1,095,000 tons per year, and the permitted lifespan extends to 2124.[41]

Overall, the proposed project would result in a subdivided 188-unit single-family residential community, a 57-unit townhome community, and an 84-unit multi-family residential complex; three commercial lots totaling 3.3 acres; 6.9 total acres of park uses; a new drainage channel parallel to the eastern site boundary; internal roadway improvements; associated utility improvements; new landscaping; and frontage improvements.

According to the U.S. EPA's report, Estimating 2003 Building-Related Construction and Demolition Materials Amounts, residential construction activities generate an average of 4.39 lbs/sf of waste.[42] The proposed project would include construction of a total of 49.5 acres of residential land uses and 3.3 acres of commercial land uses. However, the total building square footage of the future units and commercial buildings are currently unknown. Therefore, for a conservative analysis, each single-family unit was estimated to include 2,500 sf of building space, each townhome was estimated to include 1,500 sf of building space, and each multi-family unit was estimated to include 1,000 sf of building space. Additionally, this EIR assumes that the commercial lots would be developed with approximately 37,000 sf of commercial buildings. As such, the proposed project would result in a total buildout square footage of 676,500 sf, construction of which would produce 2,969,835 lbs (1,485 tons) of construction waste (4.39 lbs/sf X 676,500 sf).

The construction waste estimate presented above represents a conservative analysis of the maximum potential waste production from construction of the proposed project. The CALGreen Code requires at least 65 percent diversion of construction waste for projects permitted after January 1, 2017. As such, a minimum of approximately 912 tons of waste would be diverted away from landfill disposal during construction. Considering the applicable CALGreen Code requirements, buildout of the proposed project would be anticipated to produce up to 492 tons of construction waste. Construction waste generation represents a short-term increase in waste generation. The YCCL is permitted to accept 657,000 tons per year. Therefore, construction waste associated with the proposed project would represent approximately 0.00045 percent of the WRSL's total annual permitted capacity.

During operation of the project, the future residents would produce solid waste that would be collected by WM and transferred to the YCCL. Operational solid waste generation from the proposed 188 single-family residences and 57 townhome residences has been estimated based on an average waste generation rate for single-family residential development of 10 pounds per unit per day. The average solid waste

[41] California Department of Resources Recycling and Recovery. *SWIS Facility/Site Activity Details Yolo County Central Landfill (57-AA-0001)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/689?siteID=4033. Accessed July 2024.

[42] U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts.* 2009.

generation of each of the 84 multi-family units has been estimated based on an average waste generation rate for multi-family residential development of 8.6 pounds per unit per day. The average solid waste generation for the three commercial lots totaling 3.3 acres has been estimated based on an average waste generation rate for commercial development of 13 pounds per 1,000 sf per day.[43] As discussed above, the commercial lots are assumed to be developed with approximately 37,000 sf of commercial buildings. As such, the proposed project would produce a maximum of approximately 3,654 pounds of solid waste per day. A total of 3,654 pounds of solid waste per day would equate to approximately 667 tons per year, or 0.06 percent of the YCCL's annual permitted capacity. A contribution of a maximum of 0.06 percent of the YCCL's total annual permitted capacity would not be considered a substantial amount of waste, and the YCCL has adequate capacity to accept such waste. Therefore, the project would not be considered to contribute significant amounts of waste to the YCCL, and the YCCL has sufficient capacity to handle the increase in waste anticipated to be generated by implementation of the proposed project.

Based on the above, construction and operation of the proposed project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. In addition, the project would not conflict with applicable federal, State, and local management and reduction statutes and regulations related to solid waste. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

For further detail related to the cumulative setting of the proposed project, refer to Chapter 5, Statutorily Required Sections, of this EIR.

4.8-10 Cumulative impacts to public services. Based on the analysis below, the cumulative impact is *less than significant*.

Potential cumulative impacts related to fire and law enforcement services, schools, public services and government facilities, and parks and recreation are discussed below.

[43] California Department of Resources Recycling and Recovery. *Estimated Solid Waste Generation Rates*. Available at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed November 2023.

Fire Protection Services

Cumulative development, in conjunction with the proposed project, would increase the demand for fire protection services provided by the WFD.

As future buildout within the City's General Plan planning area occurs, additional fire protection facilities and equipment may be necessary to adequately serve cumulative development. As discussed above, WFD collects a development impact fee specific to fire services within the WFD service area.

Similar to the proposed project, cumulative development within the City's General Plan planning area would be subject to applicable permits and fees, which would be reviewed by the City to ensure payment. Therefore, revenues generated through fee payments associated with cumulative development would pay fair shares toward any new WFD facilities deemed necessary by the City, all of which would be required to be designed and constructed in accordance with applicable regulations and standards, and if necessary, undergo CEQA review. In addition, as discussed above, all structures included as part of buildout of the City's General Plan would be constructed in compliance with the CBC and CFC, which would reduce the potential for fires to occur within the planning area and thereby reduce the demand for fire protection services in the City.

Based on the above, cumulative development within the City of Winters, in conjunction with the proposed project, would result in a less-than-significant impact related to the need for new or improved fire protection facilities, the construction of which could cause significant environmental impacts.

Law Enforcement Services

The WPD has indicated that new or physically altered law enforcement facilities would not be needed to adequately serve the proposed project. In addition, though response times are dependent upon the location of patrol officers at the time of the emergency call, on average, response times to the project site would be anticipated to be within the General Plan's three-minute response time standard. As a result, the proposed project would not result in a need for new, or improvements to existing, law enforcement service facilities, construction of which could cause significant environmental impacts. Similar to the proposed project, other future development within the region would be required to address impacts related to police protection services on a project-by-project basis and pay applicable development impact fees. Based on the above, the proposed project, in combination with future development occurring within the City, would have a less-than-significant impact to police protection services.

Schools

Cumulative buildout within the City and surrounding area could result in overcrowding at schools in the area. However, each individual development would be required to pay SB 50 school impact fees, similar to the proposed project, which would contribute to the facilitation of school expansions in order to serve the needs of the area. Furthermore, according to SB 50, payment of the necessary school impact fees for the project would be considered full and satisfactory CEQA mitigation. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […]

involving […] the planning, use, or development of real property" (Government Code 65996(b)). Therefore, the proposed project, in combination with future development occurring under buildout of the City of Winters, would result in a less-than-significant cumulative impact related to the need for new, or improvements to existing, school facilities.

Parks and Recreation

The proposed project would include the provision of on-site parks and would not result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of such facilities would occur or be accelerated. Pursuant to Chapter 16.08 of the City of Winters Municipal Code, dedication of land for park or recreational purposes, or a fee paid in lieu thereof, or a combination of both, is required as a condition of approval for final subdivision or parcel maps. The proposed project would provide 6.1 acres of on-site parks, which would be above the City's requirement of five acres of parkland per 1,000 residents (General Plan Policy V.A.2), assuming an average household size of 2.97 persons. Future development within the City would similarly be required to comply with the City's park dedication/in-lieu fee standards. Therefore, the proposed project, in combination with future buildout in the City, would result in a less-than-significant cumulative impact related to parks and recreation.

Public Facilities and Government Services

As discussed above, while project-generated traffic could result in an incremental increase in maintenance of City roads in the project area, such an increase would be negligible. In addition, the project applicant would be required by the City to pay a Transportation Impact Fee, which would help fund and sustain necessary improvements resulting from the increase in traffic generated by new development, such as road widening or signalization of intersections. Similarly, given the size of the proposed development, any additional demand on libraries or other public facilities and services generated by the proposed project would be relatively minor, and is not likely to result in the need for alteration of existing facilities or the construction of new facilities. Revenues generated by Yolo County property taxes, State funds, and library fees are used to fund countywide library programs and operations. Cumulative development within the area would be required to be designed and constructed in accordance with applicable regulations and standards, pay all applicable fees and taxes, and if required, undergo CEQA review.

Based on the above, cumulative development within the City, in conjunction with the proposed project, would result in a less-than-significant impact related to the need for new or improved parks and/or other public facilities, the construction of which could cause significant environmental impacts.

Conclusion

Based on the above, the proposed project, in combination with future development occurring in the City, would result in a ***less-than-significant*** cumulative impact related to public services.

Mitigation Measure(s)

None required.

4.8-11 Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout in the City of Winters. Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

The follow discussion provides an analysis of the proposed project's contribution to cumulative impacts related to the increased demand for utilities and service systems within the project area.

Water Supply

As discussed above, the Groundwater Sustainability Assessment Technical Memorandum provides an overview of the City's existing water demand and supply conditions, future water demand for the new developments, and summarizes the sustainability assessment of the City's groundwater supply considering the existing and future demands for the City. The assessment determined that the City's estimated additional pumping for the total planned residential developments through 2029 would be 403 AFY, including 143 AFY for the areas already developed and 260 AFY for the remaining future developments, including the proposed project. The City's additional future pumping is not anticipated to result in significant and undesirable results on the long-term sustainability of the Subbasin. Given the portion of the pumping is already extracted for the completed developments in 2022, effects on the local basin are already reflected in the most recent groundwater conditions. Based on the current conditions, groundwater levels near the City are above the minimum thresholds set by the GSP. In addition, the City's increased demand for future developments was already considered under the GSP future scenarios.

Based on the above, impacts related to the increase in demand for groundwater supply associated with the proposed project in combination with future buildout of the Winters General Plan would be less than significant.

Wastewater Conveyance and Treatment

Cumulative development, in conjunction with the proposed project, would result in increased demand for wastewater treatment services provided by the City of Winters. According to the City's Wastewater Treatment Facility Master Plan Update, assuming a 2036 population of 12,243, the projected annual volumes of wastewater to be treated and disposed of by the WWTF will be 456 mg (average dry weather flow [ADWF] of 1.25 mgd) based on wastewater generation rates of 102 gallons per capita per day (gcpd). Based on the projected growth rate, the WWTF is expected to reach its current rated capacity with a population of 10,824 in 2031.[44]

New developments would also be required to be designed and constructed in accordance with the applicable standards set forth in the City of Winters Standard Specifications, Division I, Section 7 (Sanitary Sewer Design), and pay the City's connection fee as established by Winters Municipal Code Section 13.08.110(H). Revenues generated by payment of the connection fee would ensure that future

[44] City of Winters. *Wastewater Treatment Facility Master Plan Update*. June 2018.

development pays a fair share towards any expansions to the wastewater system deemed necessary by the City, including costs associated with sewer distribution system improvements.

Based on the above, impacts related to the increase in demand for wastewater treatment services and facilities associated with the proposed project in combination with future buildout of the Winters General Plan would be less than significant.

Electricity, Natural Gas, and Telecommunications Facilities

Environmental effects associated with the construction of new or expanded electricity, natural gas, and telecommunications facilities would primarily be project-specific, rather than cumulative. As noted under Impact 4.8-6 above, while the project would include new connections to existing electrical, natural gas, and telecommunications infrastructure located in the project vicinity, substantial extension of existing off-site infrastructure would not be required. Therefore, the proposed project would result in a less-than-significant cumulative impact related to construction of new or expanded electricity, natural gas, and telecommunications facilities.

Solid Waste

As noted previously, solid waste collection services for the proposed project would be provided by WM and delivered to the YCCL. With the current remaining capacity available, the YCCL is anticipated to operate through 2124.

Although the proposed project includes redesignation and rezoning of the project site, the project would not be expected to result in significantly more intense waste generation than was previously anticipated for the project site in the General Plan and, thus, regional solid waste planning efforts. As such, the incremental increase in demand for solid waste collection and disposal services that would result from implementation of the proposed project has generally been anticipated by the City of Winters General Plan. Therefore, the proposed project's incremental contribution to the cumulatively considerable impact to solid waste would be considered less than cumulatively considerable.

Storm Drainage

As discussed above, a SDMP has been prepared for the northeast corner of the City. Implementation of the improvements included therein would ensure that flooding impacts resulting from future development in the vicinity of the project site would not occur, and storm water flows are safely diverted to the Putah Creek. Future development would be required by the City to pay drainage impact fees, which would help fund the improvements identified in the SDMP. Additionally, new developments would also be required to pay the City's storm drainage fee as established by Winters Municipal Code Section 13.08.1120. Therefore, the proposed project, in combination with future buildout in the City, would result in a less-than-significant cumulative impact related to storm drainage.

Conclusion

Based on the above, adequate water supplies and wastewater treatment capacity exist to accommodate cumulative growth within the City and increased demand due to operation of the proposed project. In addition, the project would not be anticipated to

result in significantly more intense solid waste generation than was previously anticipated for the project site in the General Plan. Implementation of the SDMP would ensure that cumulative impacts do not occur related to storm drainage and off-site flooding. The project would not result in any significant cumulative impacts related to electrical, natural gas, and telecommunications infrastructure. Therefore, the proposed project would result in a ***less-than-significant*** cumulative impact related to utilities and service systems.

Mitigation Measure(s)

None required.

4.9 Transportation

4.9 TRANSPORTATION

4.9.1 INTRODUCTION

The Transportation chapter of the EIR discusses the existing transportation and circulation facilities within the project vicinity, as well as applicable policies and guidelines used to evaluate operation of such facilities. Where development of the proposed project would conflict with applicable policies or guidelines, mitigation measures are identified. The information contained within this chapter is primarily based on the Transportation Study[1] prepared for the proposed project by Fehr & Peers (see Appendix N of this EIR). Additional information is based on the City of Winters General Plan,[2] the City of Winters General Plan EIR,[3] and the City's Circulation Master Plan and Roadway Impact Fee Program Update (Circulation Master Plan).[4]

At the beginning of 2019, updated CEQA Guidelines went into effect. The new Guidelines require CEQA lead agencies, such as the City of Winters, to transition from using "level of service" (LOS) to "Vehicle Miles Traveled" (VMT) as the metric for assessing transportation impacts under CEQA (see CEQA Guidelines Section 15064.3). As noted in Senate Bill (SB) 743, the State's requirement to transition from LOS to VMT is aimed at promoting infill development, public health through active transportation, and a reduction in greenhouse gas (GHG) emissions. Pursuant to the CEQA Guidelines, any project that did not initiate CEQA public review prior to July 1, 2020, must use VMT rather than LOS as the metric to analyze transportation impacts.

It should be noted that LOS is still used within City's General Plan goals and policies related to transportation. However, pursuant to CEQA Guidelines Section 15064.3 and because LOS is no longer used for determining significant impacts under CEQA, the impact significance in this chapter is based upon VMT, rather than congestion and delay through LOS.

4.9.2 EXISTING ENVIRONMENTAL SETTING

The section below describes the physical and operational characteristics of the existing transportation system within the study area, including the existing roadway system surrounding the project site and transit, bicycle, and pedestrian facilities.

Project Study Area

The Transportation Study defines the study area as the area contained within a 0.25-mile buffer around State Route (SR) 128 (also known as Grant Avenue) between Railroad Avenue and Interstate 505 (I-505). Within the study area, the 61.9-acre project site is bounded by an unpaved access road to the north, SR 128 to the south, and Timber Crest Road to the east (see Figure 3-2 of this EIR). Existing vehicle, transit, bicycle, and pedestrian traffic in the area is primarily associated with the surrounding land uses, which include the following: agricultural land currently used for orchards to the north; two single-family residences and associated outbuildings located east of the project site, across Timber Crest Road; a fueling station and fast-food restaurant

1 Fehr & Peers. *Farmstead Subdivision Project Transportation Study*. June 2024.
2 City of Winters. *The City of Winters General Plan Policy Document*. Adopted May 19, 1992.
3 City of Winters. *City of Winters General Plan Final Environmental Impact Report*. Certified May 1992.
4 City of Winters. *Circulation Master Plan and Roadway Impact Fee Program Update*. November 2017.

located further to the east; a single-family residence with associated outbuildings located south of the site, across SR 128; a single-family residential neighborhood located further to the south; and a fueling station, grocery store, dental office, and single-family residential neighborhood located to the west of the site.

Existing Roadway System

The following sections provide a summary of the primary roadways within the project vicinity (see Figure 4.9-1).

Interstate 505

I-505 is a north-to-south highway that provides the primary regional access to the City of Winters from the City of Vacaville and central Solano County to the south, and from the City of Woodland and Interstate 5 (I-5) to the north. The portion of I-505 that runs through the City is a four-lane roadway with a speed limit of 70 miles per hour (mph). I-505 features a straight alignment through the City, with a grade-separated, partial cloverleaf interchange at SR 128. According to the Transportation Study, I-505 carries approximately 24,500 daily trips within the vicinity of the SR 128 interchange. The SR 128/I-505 southbound ramp intersection is side-street stop-controlled, while the SR 128/I-505 northbound ramp intersection is signalized. The City's Circulation Master Plan identifies a future traffic signal at the SR 128/I-505 southbound ramp intersection, which is also included in the City's Facility Fees for Development Projects program.

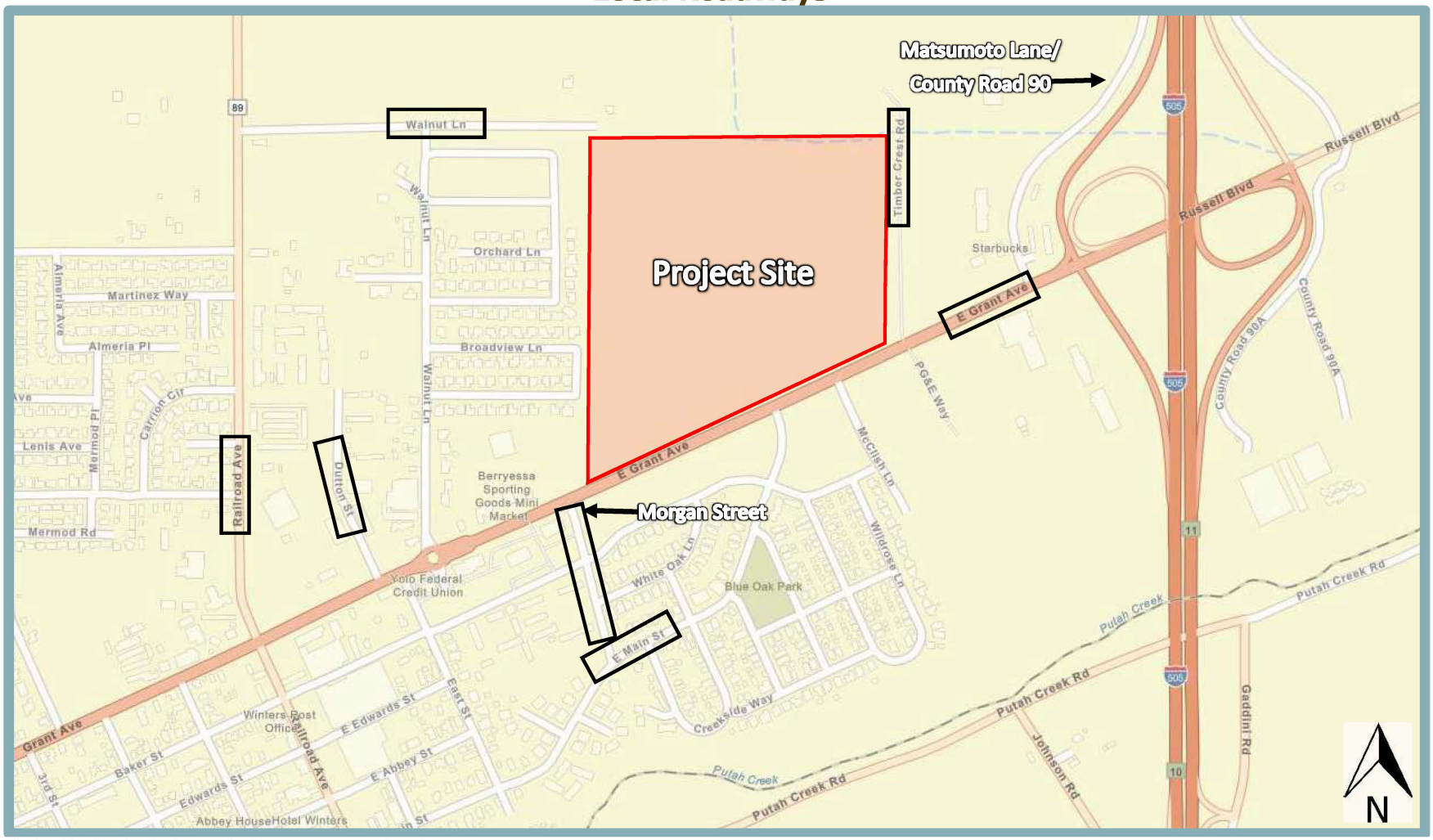
State Route 128

Within the City limits, SR 128 is referred to as Grant Avenue, with the portion bounding the project site designated as East Grant Avenue. For the purposes of this chapter, the roadway is referred to as SR 128. SR 128 is a two-lane arterial that runs in an east-to-west direction through the City, a portion of which is located along the project site's southern boundary. Within the City limits, SR 128 has a speed limit of 45 mph. Local motorists use the roadway as the primary route to I-505, the City of Davis, and other regional destinations along the nearby Interstate 80 (I-80) corridor. At the SR 128/I-505 northbound ramp intersection, the roadway's eastbound name changes to County Road (CR) 32/Russell Boulevard. West of the City, the road proceeds past Lake Berryessa and eventually into the Napa Valley. SR 128 is owned, operated, and maintained by the California Department of Transportation (Caltrans). According to the City's Circulation Master Plan, the portion of SR 128 located between East Main Street and I-505 is planned to be widened to four lanes. The improvement is included in the City's Facility Fees for Development Projects program.

East Main Street

East Main Street is a two-lane collector used for local access to the City's downtown area and adjacent residential neighborhoods that terminates south of the project site, across SR 128 with a speed limit of 25 mph. The roadway is currently laid out in a 'partial loop' design as it extends through the southern and northwestern portions of the City; however, Main Street is planned to eventually provide a complete loop through the City. The SR 128/East Main Street intersection is side-street stop-controlled. The City's Circulation Master Plan identifies a future traffic signal at the foregoing intersection. The improvement is included in the City's Facility Fees for Development Projects program. Bicycle and pedestrian facilities are present on both sides of East Main Street.

Figure 4.9-1
Local Roadways



Note: Project site boundaries are approximate.

Railroad Avenue

Railroad Avenue is a primary north-to-south roadway located approximately 1,900 feet west of the project site. The roadway is a two-lane arterial that bisects the City limits. The road begins at the Solano County line, crosses Putah Creek, and extends north towards Esparto. South of SR 128, Railroad Avenue has a speed limit of 25 mph. The speed limit increases to 30 mph as the roadway crosses SR 128 and extends towards the north, before transitioning to 35 mph at the Railroad Avenue/Anderson Avenue intersection. The SR 128/Railroad Avenue intersection is controlled by a traffic signal. Pedestrian facilities are located on both sides of Railroad Avenue, with the eastbound sidewalk terminating at the roadway's intersection with Martinez Way. The western sidewalk extends north for another block to Niemann Street but does not continue further north.

Dutton Street

Dutton Street is a two-lane collector road serving industrial and residential uses north of SR 128 located approximately 1,350 feet west of the project site. Pedestrian facilities are currently located on Dutton Street, although bicycle facilities do not exist along the roadway. The SR 128/Dutton Street intersection is currently side-street stop-controlled. The City's Circulation Master Plan identifies a future roundabout at the intersection.

Walnut Lane

Walnut Lane is a two-lane collector road serving residential uses located to the north of SR 128 and commercial uses to the south of SR 128, located approximately 850 feet west of the project site. The SR 128/Walnut Lane intersection is controlled by a roundabout. Pedestrian facilities are currently located on Walnut Lane, although bicycle facilities do not exist along the roadway.

Morgan Street

Morgan Street is a two-lane local road serving residential uses south of SR 128 and runs in a north-south direction parallel to the project site's western boundary. The roadway has a speed limit of 25 mph. The SR 128/Morgan Street intersection is currently side-street stop-controlled. The City's Circulation Master Plan identifies a future roundabout at the intersection and envisions the extension of Morgan Street to the north of SR 128. The roundabout improvement is included in the City's Facility Fees for Development Projects program.

Timber Crest Road/PG&E Way

Timber Crest Road is a privately owned one-lane road lacking pedestrian or bicycle facilities located along the project site's eastern site boundary. PG&E Way extends south and serves the Pacific Gas & Electric (PG&E) Gas Safety Academy located at 1 PG&E Way. The SR 128/Timber Crest Road/PG&E Way intersection is controlled by a traffic signal. The City's Circulation Master Plan envisions the eventual extension of Timber Crest Road to the north of SR 128.

Matsumoto Lane/County Road 90

Matsumoto Lane/CR 90 is a two-lane collector road approximately 650 feet east of the project site that serves highway commercial uses north of SR 128. Pedestrian facilities are located on either side of the roadway until the crossing over Willow Canal to the northeast of the project site. The intersection between SR 128 and Matsumoto Lane/CR 90 is controlled by a traffic signal.

Transit System

The Yolo County Transportation District (YCTD) provides public transit service (Yolobus) in the City limits. Currently, the City of Winters is served by the Yolobus YOUR Ride on-demand

microtransit service, which provides point-to-point rides within the City and to/from the cities of Davis and Vacaville. The service is available Monday through Saturday between 8:30 AM and 4:30 PM.

Yolobus stops are not located adjacent to the project site. The closest bus stops to the project site are located on SR 128 to the east of Timber Crest Road/PG&E Way and on SR 128 to the west of Morgan Street.

Yolobus Route 220C

YoloGO, the future service plan for Yolobus service, recommends the eventual reinstatement of Route 220C, a commuter bus route that connected Winters with the City of Davis and UC Davis prior to the COVID-19 pandemic. When the route was active, the morning trip departed the City at 7:15 AM, while the evening trip returned to Winters at 5:44 PM. The bus line connected to several UC Davis destinations, including the Memorial Union Terminal and the bus terminal at the Silo Market. In addition, the bus line included a stop at Sutter Davis Hospital on Covell Boulevard.

Bicycle System

Caltrans recognizes four classifications of bikeway facilities, as described below:

- **Class I – Shared-Use Paths** provide a separate right-of-way (ROW) for the exclusive use of people walking and bicycling. Class I paths tend to have minimal intersecting vehicle traffic and are often considered the most accommodating facilities for people walking and bicycling.
- **Class II – Bike Lanes** designate an exclusive space for bicyclists through the use of pavement markings and signage. Bike lanes are located adjacent to motor vehicle travel lanes and flow in the same direction as motor vehicle traffic. Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane.
- **Class III – Bike Routes** are designated streets where bicyclists and automobile drivers are encouraged to share the road. The routes are typically designated with signage, but some streets also use sharrows to indicate where bicyclists shall position themselves on the road.
- **Class IV – Separated Bikeways** are often referred to as “cycle tracks” and are a relatively new class of bicycle facility. They have different forms but all share common elements. For instance, they provide space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. Separated bikeways are typically situated between the motor vehicle travel lane/parking lane and the sidewalk.

Bicycle facilities are not currently present within the immediate project vicinity. A shared-use path is provided on the south side of SR 128 south of the project site, between Timber Crest Road/PG&E Way and Matsumoto Lane/CR 90.

The City of Winters Bikeway System Master Plan (Bikeway System Master Plan)[5] identifies future bicycle facility improvements throughout the City. Additionally, the City completed the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan[6] in December 2010 in

[5] City of Winters. *Bikeway System Master Plan*. January 2013.
[6] City of Winters. *Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan*. December 2010.

compliance with Caltrans policy DD-64-R1, the Complete Streets Policy Act. According to the Transportation Study, the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan identified planned bicycle facility improvements along SR 128 between Railroad Avenue and I-505. Both the Bikeway System Master Plan and the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan include the future construction of both Class I shared-use paths and Class II bike lanes on SR 128, between Railroad Avenue and I-505, and the construction of Class II bike lanes on East Main Street.

Pedestrian System

Pedestrian facilities are generally limited and discontinuous within the project vicinity, reflecting the rural character of the area. The north side of SR 128 lacks continuous sidewalks between Walnut Lane and Matsumoto Lane/CR 90, and the south side of SR 128 lacks continuous sidewalks between Morgan Street and Timber Crest Road/PG&E Way.

Marked crosswalks across SR 128 are provided at Walnut Lane, Timber Crest Road/PG&E Way, and Matsumoto Lane/CR 90. Within the immediate project vicinity, SR 128 lacks marked crosswalks for an approximately half-mile stretch between Walnut Lane and Timber Crest Road/PG&E Way.

The City of Winters Bikeway System Master Plan and the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan identify future intersection traffic control and pedestrian crossing improvements at several intersections along SR 128, including Dutton Street, Morgan Street, Walnut Lane, East Main Street, and Timber Crest Road/PG&E Way.

Collision History

The Statewide Integrated Traffic Records System (SWITRS) is a database that collects and processes data gathered from a vehicle collision scene. As detailed in the Transportation Study, according to the SWITRS, 13 injury or fatal collisions were reported within the study area between 2018 and 2022. Table 4.9-1 provides a summary of the collisions, including their location, parties involved, and primary collision factor. One reported collision involved a bicycle, and two involved a pedestrian. Concentrations of collisions in the study area occurred on SR 128 near the I-505 interchange and at Railroad Avenue.

Table 4.9-1
Five-Year Injury Collision History Near Project Site

Location	Parties[1]	Type	Primary Collision Factor	Year
SR 128 west of 1st Street	**Vehicle**, Vehicle	Rear End	Unsafe Speed	2018
SR 128 at Railroad Avenue	**Motorcycle/Scooter,** Vehicle	Broadside	Improper Passing	2021
SR 128 at Railroad Avenue	Vehicle, **Bicycle**	Broadside	Improper Turning	2021
Railroad Avenue at East Baker Street	**Vehicle,** Pickup/Panel Truck	Broadside	Automobile Right-of-Way	2020
SR 128 at Walnut Lane	**Vehicle**, Vehicle	Rear End	Driving Under the Influence of Alcohol or Drug	2018
SR 128 West of Morgan Street	**Pickup/Panel Truck,** Vehicle	Broadside	Automobile Right-of-Way	2020

(Continued on next page)

Table 4.9-1
Five-Year Injury Collision History Near Project Site

Location	Parties[1]	Type	Primary Collision Factor	Year
Morgan Street south of Baker Street	**Vehicle**, Vehicle	Rear End	Improper Turning	2018
SR 128 at PG&E Way	**Vehicle,** Vehicle	Broadside	Traffic Signals and Signs	2022
SR 128 East of PG&E Way	**Vehicle,** Pickup/Panel Truck, Pickup/Panel Truck	Rear End	Unsafe Speed	2022
I-505 SB On-Ramp from EB SR 128	**Vehicle,** Vehicle, Motorcycle/Scooter	Sideswipe	Unsafe Speed	2021
I-505 SB On-Ramp from EB SR 128	**Pickup/Panel Truck**	Overturned	Improper Turning	2021
I-505 NB Off-Ramp to SR 128	**Vehicle,** Pickup/Panel Truck	Broadside	Unsafe Speed	2021
I-505 NB On-Ramp from EB SR 128	**Motorcycle/Scooter**	Overturned	Improper Turning	2022

[1] **Bold** indicates party at fault. Grey denotes fatal or severe injury collision.

Source: Fehr and Peers, 2024.

Vehicle Miles Traveled

As a result of SB 743, effective July 1, 2020, local jurisdictions may not rely on vehicle LOS and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA. Pursuant to CEQA Guidelines Section 15064.3, VMT is the primary metric used to identify transportation impacts under CEQA. VMT is a measure of the total amount of vehicle travel occurring on a given roadway system, and accounts for the number of vehicle trips generated and the length or distance of those trips. VMT does not directly measure traffic operations; instead, VMT is a measure of transportation network use and efficiency, especially when expressed as a function of population (i.e., VMT per capita).

Vehicle Miles Traveled – Existing Conditions

As discussed further in Section 4.9.3, Regulatory Context, of this chapter, in response to SB 743, the Governor's Office of Planning and Research (OPR) updated the CEQA Guidelines to include new transportation-related evaluation metrics, establishing VMT as the primary metric. To aid in SB 743 implementation, OPR released the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) in December 2018.[7] The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement SB 743 changes.

The Transportation Study prepared for the proposed project, in accordance with the recommendations for evaluating VMT contained in the Technical Advisory, establishes baseline VMT levels to compare the effects of the proposed project to existing conditions. The existing residential development throughout the City of Winters generates an average of 30.69 residential VMT per capita.

[7] Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

4.9.3 REGULATORY CONTEXT

Existing transportation policies, laws, and regulations that would apply to the proposed project are summarized below and provide a context for the impact discussion related to the project's consistency with the applicable regulatory conditions. Federal plans, policies, regulations, or laws related to transportation are not directly applicable to the proposed project. Rather, the analysis presented herein focuses on State and local regulations, which govern the regulatory environment related to transportation at the project level.

State Regulations

The following are the State environmental laws and policies relevant to transportation.

California Department of Transportation

Caltrans is responsible for planning, designing, constructing, operating, and maintaining the State Highway System (SHS). Within the study area, SR 128 and I-505 are components of the SHS. Federal highway standards are implemented in California by Caltrans. Any improvements or modifications to the SHS within the project vicinity would need to be approved by Caltrans. The following Caltrans planning documents emphasize the State of California's focus on transportation infrastructure that supports mobility choice through multimodal options, smart growth, and efficient development.

- Smart Mobility 2010: A Call to Action for the New Decade (Smart Mobility Framework) (adopted February 2010);
- Complete Streets Implementation Action Plan (adopted annually);
- California Transportation Plan 2040 (adopted June 2016); and
- Caltrans Strategic Management Plan 2015-2020 (adopted March 2015, updated 2019).

Senate Bill 226

SB 226 revises the State CEQA Guidelines to set forth a streamlined review process for infill projects, including performance standards to determine an infill project's eligibility for streamlined review. One of the requirements for streamlined review is that the project be consistent with the land use designation, density, and building intensity, as well as with applicable policies specified for the project area in either a sustainable communities strategy (SCS) or an alternative planning strategy.

Senate Bill 375

SB 375 requires metropolitan planning organizations (MPOs) to prepare a SCS as part of their regional transportation plans (RTPs). The SCS demonstrates how the region would meet GHG reduction targets through integrated land use, housing, and transportation planning. Specifically, the SCS must identify a transportation network that is integrated with the forecasted development pattern for the plan area and would reduce GHG emissions from automobiles and light trucks in accordance with targets set by the California Air Resources Board (CARB). CARB is required to prepare a report every four years analyzing the progress made by each MPO in meeting regional GHG emission reduction targets. The Sacramento Area Council of Governments (SACOG) serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo counties, excluding those lands in the Lake Tahoe Basin. The most recent CARB MPO report was prepared in 2022.

Senate Bill 743

SB 743 creates or encourages several statewide changes to the evaluation of transportation and traffic impacts under CEQA. First, the bill directs the OPR to amend the CEQA Guidelines to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the new metrics beyond TPAs. In the amended State CEQA Guidelines, OPR selected VMT as the preferred transportation impact metric and recommended the use of VMT statewide. The California Natural Resources Agency certified and adopted the amended State CEQA Guidelines in December 2018. The amended State CEQA Guidelines state that "…generally, VMT is the most appropriate measure of transportation impacts" and the provisions requiring the use of VMT apply statewide, as of July 1, 2020. The amended State CEQA Guidelines further state that land use "…projects within 0.5 mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less-than-significant transportation impact."

In addition, SB 743 establishes that aesthetic and parking impacts of residential, mixed-use residential, or employment center projects on an infill site within a TPA shall not be considered significant impacts on the environment. Furthermore, SB 743 added Section 21099 to the Public Resources Code (PRC), which states that automobile delay, as described by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment.

Finally, SB 743 establishes a new CEQA exemption for a residential, mixed-use, and employment center project that is: (a) within a TPA; (b) consistent with a specific plan for which an EIR has been certified; and (c) consistent with an SCS. The exemption requires further review if the project or circumstances changes significantly. It should be noted that TPAs do not exist within the City of Winters.

Technical Advisory on Evaluating Transportation Impacts in CEQA

To aid in implementation of SB 743, OPR released its Technical Advisory in December 2018. The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement SB 743 changes, including technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use the recommendations at their discretion.

The Technical Advisory identifies screening thresholds to quickly identify when a project shall be expected to cause a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests that projects meeting one or more of the following criteria shall be expected to have a less-than-significant impact on VMT:

- Small projects – Projects that are consistent with a SCS and local general plan and that generate or attract fewer than 110 trips per day;
- Projects near major transit stops – Certain projects (residential, retail, office, or a mix of such uses) that are proposed within 0.5-mile of an existing major transit stop or an existing stop along a high-quality transit corridor;
- Affordable residential development – A project that consists of a high percentage of affordable housing may be a basis to find a less-than-significant impact on VMT;
- Local-serving retail – Local-serving retail development tends to shorten trips and reduce VMT. The Technical Advisory encourages lead agencies to decide when a project would likely be local-serving, but generally acknowledges that retail development, including

stores larger than 50,000 square feet (sf), might be considered regional-serving. The Technical Advisory suggests that lead agencies analyze whether regional-serving retail would increase or decrease VMT (i.e., not presume a less-than-significant impact); and

- Projects in low-VMT areas – Residential and office projects that incorporate similar features (i.e., density, mix of uses, transit accessibility) as existing development in areas with low VMT would tend to exhibit similarly low VMT.

The Technical Advisory also identifies recommended quantitative VMT thresholds for residential, office, and retail projects, as described below.

- Residential development that would generate vehicle travel exceeding 15 percent below existing residential VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as a regional VMT per capita or as City VMT per capita;
- Office projects that would generate vehicle travel exceeding 15 percent below existing regional VMT per employee may indicate a significant transportation impact; and
- Retail projects that result in a net increase in total VMT may indicate a significant transportation impact.

For mixed-use projects, the Technical Advisory suggests evaluating each component independently and applying the applicable significance threshold. Alternatively, the lead agency may consider only the project's dominant use.

The Technical Advisory also provides guidance on impacts to transit. Specifically, the Technical Advisory suggests that lead agencies generally shall not treat the addition of new transit users as an adverse impact. As an example, the Technical Advisory suggests the following.

> [An] infill development may add riders to transit systems and the additional boarding and alighting may slow transit vehicles, but it also adds destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network.

California Department of Transportation

Various Caltrans planning documents emphasize the State's focus on transportation infrastructure that supports mobility choice through multimodal options, smart growth, and efficient development. For example, on May 20, 2020, Caltrans adopted the VMT-Focused Transportation Impact Study Guide (TISG) to provide updated guidance on changes to the agency's review process for land use projects and plans. The TISG outlines how Caltrans will review land use projects with a focus on supporting State land use goals, planning priorities, and GHG emission reduction goals. The TISG also emphasizes that VMT analysis is the primary review focus, and references OPR's Technical Advisory as a basis for the guidance in the TISG. Notably, the TISG recommends use of the thresholds in the Technical Advisory for land use projects, including the screening thresholds that would identify projects and areas presumed to have a less-than-significant transportation impact.

In addition, on December 18, 2020, Caltrans released the Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance (Safety Guidance) to provide updated guidance on conducting safety review for proposed land use projects. The interim Safety Guidance recommends that safety analyses include a review of three primary elements related to transportation safety: design standard compliance, collision history, and collision risk. It should

be noted that the Safety Guidance does not establish specific analysis methods or significance thresholds for determining safety impacts under CEQA. Rather, local agencies may use the Safety Guidance at their own discretion as a guide for review of local facilities.

Local Regulations

The following are the local regulatory agencies and environmental laws and policies relevant to transportation.

Sacramento Area Council of Governments

SACOG is the MPO governing the six-county Sacramento region consisting of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties and the associated 22 cities. SACOG is responsible for the preparation of, and updates to, the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the associated Metropolitan Transportation Improvement Program (MTIP) for the region. The SACOG 2020 MTP/SCS provides a 20-year transportation vision and corresponding list of transportation projects. The MTIP identifies short-term projects (i.e., projects with a seven-year horizon) in more detail. The current SACOG 2020 MTP/SCS was adopted by the SACOG board on November 18, 2019.

The SACOG 2020 MTP/SCS provides the basis for air quality conformity findings related to the national Clean Air Act and determinations of whether the region is complying with GHG reduction targets for automobiles and light trucks established under SB 375. Major projects that are inconsistent with the plan could jeopardize the plan's effectiveness for air pollution and GHG reduction. Consequently, consistency with the MTP/SCS is a potential basis for determining adverse impacts related to such environmental topics.

The SACOG 2020 MTP/SCS acknowledges the following:

> A more compact land development pattern and providing alternatives to driving alone are critical strategies for reducing the amount of driving we do in our daily lives. Location within the region is likely the most important variable in determining how much time people spend in their vehicles. Communities within existing urban areas, and with a mix and density of uses, tend to produce less VMT per resident than places that are farther away and spread out. These "lower VMT" areas also tend to have the density and mix of uses to support better transit service and are friendlier to biking and walking for some trips.

Accordingly, the SACOG 2020 MTP/SCS includes figures showing the distribution of VMT generation in the SACOG region, which are presented in VMT per capita. One figure presents the VMT generation for the base year (2016), and one presents the VMT generation in the horizon year of the MTP/SCS (2040).

Yolo County Transportation District

The YCTD provides public transit service (Yolobus) in the City of Winters. YCTD maintains YoloGO, the future service plan for Yolobus service throughout Yolo County. As discussed above, YoloGO recommends the reinstatement of Route 220C.

City of Winters General Plan

As previously discussed, LOS is still used within City General Plan goals and policies related to transportation. LOS standards range from LOS A, which represents free-flow vehicular traffic conditions with little to no congestion, to LOS F, which indicates oversaturated conditions where

traffic demand exceeds capacity, resulting in long queues and delays. The City of Winters General Plan, which was adopted May 19, 1992, identifies LOS D conditions as the threshold service level throughout the City. Despite LOS not functioning as a CEQA issue, the City considers vehicle LOS as a matter of General Plan policy. Because LOS is not a CEQA issue, any General Plan policies related to LOS are not included below.

The following goals and policies related to transportation, circulation, safety, and alternate modes of transportation have been included as reference.

Goal III.A To create and maintain a roadway network that will ensure the safe and efficient movement of people and goods throughout the city.

Policy III.A.2 Streets shall be dedicated, constructed, widened, extended, and modified according to City standards specified in Part I of this Policy Document. Dedication and improvement of full rights-of-way may not be required in existing developed areas where the City determines that such improvements are either infeasible or undesirable. The City may allow other deviations from these standards if the City determines that safe and adequate public access and circulation, including pedestrian convenience, are preserved by such deviations.

Policy III.A.9 The City shall require street designs consistent with principles of interconnected network path design. The City shall insure that there are multiple, local-street access points to all developments throughout the city. The City shall insure that direct access to all local streets from primary and secondary collectors is maintained. At the discretion of the City, alleys may be used in conjunction with the overall street layout.

Policy III.A.10 Street designs should promote pedestrian and bicycle travel and should emphasize safety over travel speed and capacity. Collector streets should not be used as separators of neighborhoods.

Policy III.A.11 Neighborhood streets shall be designed to discourage unsafe traffic speeds.

Policy III.A.12 The City shall encourage the use of curb corner radii that slow traffic turning movements and minimize pedestrian crosswalk lengths, but are consistent with fire truck turning needs.

Policy III.A.13 On-street truck parking shall be prohibited where such parking restricts adequate sight distances or otherwise poses a potentially hazardous situation.

Policy III.A.14 Industrial and commercial development shall be planned so that truck access through residential areas is avoided.

Policy III.A.15 The City shall ensure through a combination of traffic impact fees and other funding mechanisms that new development pays its share of the costs of circulation improvements.

Policy III.A.16 The City shall prohibit development of private streets in new residential projects, except in extraordinary circumstances. In such cases, the private streets shall be developed to City street standards.

Goal III.B To promote and maintain public and private transit systems that are responsive to the needs of Winters' residents.

Policy III.B.3 The City shall require bus turnouts and shelters in higher density residential and commercial areas and other areas deemed appropriate.

Goal III.F To ensure the adequate provision of both on- and off-street parking.

Policy III.F.1 The City shall require provision of adequate off-street parking in conjunction with all new developments. To the extent possible, parking shall be located behind buildings, out of view from the street. When it is not possible for parking lots to be placed behind buildings, the City shall require screening to mitigate the visual impact of the lots while providing for continued police surveillance. As much as possible, parking lots should not be located at intersections.

Goal III.G To promote pedestrian and bicycle travel as alternatives to automobile use.

Policy III.G.1 The City shall create and maintain a safe and convenient system of pedestrian and bicycle routes that encourages walking or bicycling as an alternative to driving. The pedestrian bicycle system shall connect all residential areas, schools, and shopping and employment areas in the city. The bicycle system shall favor on-street bike lanes over separated bike paths. New development shall be required to pay its share of the costs for development and maintenance of this system.

Policy III.G.2 The City shall require installation of sidewalks along all streets in all newly developing areas.

Policy III.G.4 Where cul-de-sacs are deemed necessary or desirable, pedestrian/bicycle paths shall, wherever possible, be required to connect from the cul-de-sac bulb to the next street.

Policy III.G.6 The City shall require inclusion of bicycle parking facilities at all new major public and quasi-public facilities and commercial and employment sites. Major employers shall be encouraged to provide showers and lockers in their facilities to encourage biking.

City of Winters Circulation Master Plan and Roadway Impact Fee Program Update

The current Circulation Master Plan, adopted in 2017, is an update to the original plan developed in 1992. The Circulation Master Plan identifies the roadway improvements necessary to ensure the ongoing functionality of the citywide circulation system as the City continues to develop.

The Circulation Master Plan identifies the following roadway network modifications within the study area:

- Extension of East Main Street and Timber Crest Road, north of SR 128;
- Construction of Moody Slough Road, between CR 88 and Matsumoto Road;
- Widening of SR 128 from two to four lanes, between East Main Street and I-505;
- Installation of new traffic signals at the following intersections:
    - SR 128/East Main Street;
    - SR 128/I-505 southbound ramps;
    - East Main Street/Moody Slough Road; and
    - Timber Crest Road/Moody Slough Road.
- Installation of new roundabouts at the following intersections:
    - SR 128/Dutton Street; and
    - SR 128/Morgan Street.

City of Winters Design Guidelines

The City of Winters Design Guidelines provides the community design expectations for the development of commercial and residential areas in the City. The Design Guidelines includes the following transportation-related guidance and requirements for the SR 128 corridor between Dutton Street and I-505 (i.e., within the immediate project site vicinity and study area):

- Vision Statement: A transition from highway commercial to pedestrian commercial is envisioned as one moves towards the western sections of the corridor from I-505.
- Circulation Access: To keep traffic flowing freely, ingress and egress to adjacent properties on Grant Avenue shall be carefully planned. Individual driveways will be allowed only where previously existing or where they represent the only feasible access and are consistent with Caltrans regulations. Joint driveways may be permitted if necessary, but should be kept to a minimum. The preference is for Grant Avenue frontage parcels to get their access via the adjacent cross streets which run perpendicular to Grant Avenue. Median left turn lanes will be provided to ensure easy access and maximum circulation efficiency.
- Street Standards: Grant Avenue [SR 128] will be a 4-lane arterial,1 with pavement from 66 to 84 feet, and a 106 to 124 foot wide right-of-way. A landscaped center median with left turn pockets will be provided along the corridor.
- Bicycles: Grant Avenue is a significant street for bicycle traffic. Bicycle lanes will be clearly marked adjacent to the sidewalk curb in each direction.
- Pedestrians: Pedestrians will be provided with a sidewalk on each side of Grant Avenue. Crosswalks will be paved with contrasting materials in order to alert motorists to pedestrian safety and to provide architectural texture and community character. Crosswalk signalization will be provided at all through cross streets. Attention to pedestrian access shall be emphasized in the western sections of the corridor.

Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan

Caltrans prepared the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan to identify multi-modal transportation improvements along the SR 128 corridor. The plan was adopted by the Winters City Council in February 2011, and includes the following future transportation improvements within the study area:

- Widening of SR 128 from two to four lanes between East Main Street and I-505;
- Construction of Class I shared-use paths and Class II bike lanes on both side of SR 128;
- Construction of new roundabouts at SR 128 intersections with Dutton Street, Walnut Lane, and Morgan Street; and
- Installation of new traffic signals at SR 128 intersections with East Main Street, Timber Crest Road and I-505 Southbound Ramps.

It should be noted that the new traffic signal at the SR 128/Timber Crest Road has been constructed, as has the new roundabout planned for the intersection at SR 128 and Walnut Lane.

City of Winters Grant Avenue Design Guidelines

The City of Winters Grant Avenue Design Guidelines establishes guidance to property owners and design professionals in planning and designing new building and remodeling existing structures within the Grant Avenue Economic Development Advisory Project Area, which generally covers the SR 128 corridor between Railroad Avenue and I-505. As such, the proposed project's SR 128 frontage parcels would be subject to the Grant Avenue Design Guidelines.

The City of Winters Grant Avenue Design Guidelines include the following transportation-related elements applicable to the proposed project:

- Connectivity
    - Provide for pedestrian, bicycle, and vehicle travel within the SR 128 corridor.
    - In proposing a project, applicants shall consider and demonstrate how the development will connect with the Grant Avenue Complete Streets Concept Plan, Class I and II bikeways, pedestrian/bicycle facilities within the project and with bordering facilities, and the Putah Creek Park Master Plan and Trail System.
    - As a priority, developments shall provide direct connection with bicycle/pedestrian facilities that border the project site, minimize bicycle/pedestrian and vehicular conflicts within and external to the project, reduce vehicular ingress/egress from the project, and create effective circulation/flow within the project.

- Vehicular Circulation
    - Provide separate vehicular and pedestrian circulation systems with a strong emphasis on pedestrian linkages between uses.
    - The City of Winters wishes to minimize conflicts for excessive ingress/egress locations along SR 128. Projects shall consider alternatives to SR 128 such as arterials (East Main Street, Timber Crest Road, or Walnut Lane).
    - Locate additional site access points as far as possible from street intersections to minimize conflicts. More than one access to a site from a public street may be permitted when the additional access will not be hazardous to the safety and operation of the street or pedestrians and when it facilitates the integration of commercial development into the community.

- Bicycle Circulation and Parking
  - Bicycle paths and routes shall be designed to provide continuous circulation through the site separated from vehicle travel ways, wherever feasible.

- Pedestrian Circulation
  - Continuous pedestrian walkways should be provided to connect the public sidewalk to the principal customer entrances at each tenant space. Drive aisles shall not be uses as pedestrian walkways.
  - Sidewalks and pedestrian ways should be scaled to the use and expectations of pedestrian volumes in any given location with the minimum width of the sidewalk and pedestrian ways at five feet minimum, and at eight feet minimum where multi-use is proposed.

City of Winters Bikeway System Master Plan

The Bikeway System Master Plan was approved by the Winters City Council in 2013. The following transportation policy statements from the document are applicable to the proposed project:

Goal III — Encourage a community culture that supports the use of bicycling as a major mode of transportation throughout the city.

Goal IV — Establish a well-connected bikeways system that is well-integrated with other modes of transportation and other alternative modes of transportation.

Goal VI — Create a convenient and safe bikeway system that aims to reduce vehicle congestion, improve air quality and improve individual physical fitness.

The Bikeway System Master Plan also identifies five priority projects as follows. A portion of the first two projects described below are located along the project frontage on SR 128.

- SR 128, from East Main Street to I-505 – Class I/II bike lanes and pedestrian facilities;
- SR 128, from Railroad Avenue to East Main Street – Bike/pedestrian upgrade;
- SR 128, from I-505 to El Rio Villa-Yolo Housing – Class I trail;
- Putah Creek Pedestrian and Bike Bridge – Class I trail; and
- West Section of Main Street – Class I trail.

4.9.4 IMPACTS AND MITIGATION MEASURES

The standards of significance used to analyze and determine the proposed project's potential impacts related to transportation and circulation are presented below. In addition, the methods used to analyze the impacts of the project on the roadway, bicycle, pedestrian, and transit systems are provided in this section.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the proposed project would be considered to result in a significant adverse impact on the environment in relation to transportation and circulation if the project would result in any of the following:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

VMT Standards of Significance

The City of Winters has not formally adopted guidance or thresholds related to VMT impact analysis (i.e., tailored screening criteria, preferred metrics and calculation methods, and use-specific thresholds). Therefore, the Transportation Study relies on guidance from the OPR Technical Advisory. Pursuant to the Technical Advisory, the proposed project would result in a significant VMT impact if it would cause the following:

- The project residential component would generate residential VMT per capita exceeding 15 percent below baseline local or regional residential VMT per capita for residential uses.

The project's proposed residential uses represent the dominant use, and thus, would be responsible for the majority of the external vehicle trips and VMT generated by the project. As such, and as discussed in further detail below, the proposed commercial uses would screen out of the quantitative VMT analysis requirement.

Therefore, consistent with the Technical Advisory, it is appropriate to evaluate project VMT impacts related to the above threshold of significance for the VMT associated with only the proposed residential uses. According to the Transportation Study, the existing residential VMT per capita for the City of Winters and the SACOG region is 30.69 and 20.82 VMT per capita, respectively. Therefore, the proposed project would result in a significant impact if it would generate residential VMT per capita exceeding 15 percent below the baseline City and/or regional average VMT per capita for residential uses.

Method of Analysis

The analysis methodology provided in the Transportation Study prepared for the proposed project by Fehr & Peers is discussed below.

Project Trip Generation

The trip generation for the proposed project was calculated using the City of Winters local travel demand model by adding the proposed land uses into the travel demand and applying the associated trip generation rates published in the 11th Edition Trip Generation Manual prepared by the Institute of Transportation Engineers (ITE). The applicable rates were assigned to the proposed 245 single-family residential units, 84 high-density residential units, and 37,000 sf of commercial uses. Project trip generation is summarized in Table 4.9-2.

As shown in the table below, the proposed project would generate the following gross vehicle trips: 4,767 daily trips, 263 AM peak hour trips, and 451 PM peak hour trips.

Table 4.9-2
Vehicle Trip Generation Summary

Project Land Uses (Site Plan)		Project Land Uses (Travel Demand Model)		Gross Vehicle Trips		
Type	**Quantity**	**Type**	**Quantity**	**Daily**	**AM Peak Hour**	**PM Peak Hour**
Townhomes	57 units	Single Family Residential	245 units	2,400	160	210
Low Density Residential	98 units					
Medium Density Residential	90 units					
High Density Residential	84 units	High Density Residential	84 units	576	34	43
Commercial	2.9 net acres	Commercial	37,000 sf	1,791	69	198
			Total Gross Trips	**4,767**	**263**	**451**

Source: Fehr and Peers, 2024.

Vehicle Miles Traveled Assessment

As discussed above, LOS is not used for evaluating project traffic impacts under CEQA with the passage of SB 743 and adoption of the amended CEQA Guidelines implementing SB 743. CEQA Guidelines Section 15064.3, subdivision (b) outlines criteria for analyzing transportation impacts using VMT. For land use projects, VMT exceeding an applicable threshold of significance may indicate a significant impact.

Specifically, the Transportation Study considers the following:

- Does the project meet one or more of the screening thresholds identified in the Technical Advisory such that a detailed analysis is not necessary?
    - If so, what information or data are available to support the conclusion that the project meets the screening threshold and should be considered to have a less-than-significant transportation impact?

If the project does not meet one or more of the "screening thresholds," the analysis would proceed to a detailed analysis of the project's VMT impact, including quantifying the project's VMT generation and determining whether the VMT generation would exceed the recommended thresholds of significance in the Technical Advisory (i.e., 15 percent below existing regional VMT per capita/employee).

Vehicle Miles Traveled Screening Analysis

The Technical Advisory identifies "screening thresholds" to quickly identify, without conducting a detailed study, when a project shall be expected to cause a less-than-significant transportation impact. The Technical Advisory suggests the following projects shall be expected to have a less-than-significant impact on VMT:

- Small projects;
- Projects near major transit stops;
- Affordable residential development;
- Local-serving retail; and

- Projects in low-VMT areas.

Of the foregoing project types, only the criteria for projects near major transit stops are codified in the updated CEQA Guidelines. The remaining criteria for small projects, affordable residential development, local-serving retail, or projects in low-VMT areas are not codified in the CEQA Guidelines, but are suggested by OPR. For mixed-use projects, the Technical Advisory suggests two options: evaluating each component independently and applying the screening threshold for the applicable land use type, or having the lead agency consider only the project's dominant use.

In accordance with the Technical Advisory, the project's 37,000 sf of commercial uses would satisfy the local-serving retail VMT screening criterion due to the nature and size of the commercial component (retail development less than 50,000 sf). Therefore, the commercial uses would screen out of requiring a quantitative VMT analysis.

A review of the proposed residential uses and surrounding area indicates that the project's residential uses do not meet any of the screening criteria. Therefore, the Transportation Study does not rely on screening criteria and a quantitative VMT analysis for the proposed residential uses was conducted.

Vehicle Miles Traveled Quantitative Analysis

The Technical Advisory indicates that lead agencies can evaluate each component of a mixed-use project independently and apply the significance threshold for each project type included. Thus, the Transportation Study evaluates residential VMT independently.

As discussed above, the Technical Advisory states that residential projects that would exceed a level of 15 percent below existing VMT per capita may indicate a significant transportation impact. SACOG has prepared maps illustrating residential VMT per capita for areas throughout the six-county region. As previously discussed, according to SACOG estimates, existing residential development throughout the City of Winters generates an average of 30.69 residential VMT per capita, which is 47 percent above the existing regional average of 20.82 residential VMT per capita. According to the Transportation Study, the higher VMT per capita rate can be attributed to the high automobile mode split, dispersed development patterns throughout the City, and the distance required to travel to destinations outside of the City, particularly for commute travel to employment centers (e.g., UC Davis, downtown Sacramento, the City of Vacaville, etc.).

Bicycle and Pedestrian Facilities

The impact assessment for bicycle and pedestrian travel considers existing and planned bicycle and pedestrian facilities and reviews the proposed project to determine if it would physically disrupt an existing facility or prevent the implementation of a planned facility. The assessment also considers whether the project would substantially increase conflicts between bicyclists and pedestrians and other modes of travel.

Transit Services and Facilities

The impact assessment for transit considers existing and planned transit facilities and services and reviews the proposed project to determine if it would physically disrupt an existing service or facility or prevent the implementation of a planned service or facility. The assessment also considers whether the project could conflict with applicable transit policies.

Transportation Safety Impacts

Potential impacts related to transportation system safety are based on a review of project changes to the transportation network and a qualitative assessment of whether the proposed changes would conflict with applicable standards or result in detrimental conditions based on the thresholds of significance.

Project-Specific Impacts and Mitigation Measures

The proposed project impacts on the transportation system are evaluated in this section based on the thresholds of significance and methodology described above. Each impact is followed by recommended mitigation to reduce the identified impacts, if needed. In the case of traffic operations, specifically intersection and roadway LOS, such an analysis is not required pursuant to CEQA Guidelines Section 15064.3(a) because congestion and intersection operations are not considered a transportation impact under CEQA.

4.9-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian, bicycle, and transit facilities. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed throughout this chapter, LOS is no longer the applicable metric when evaluating CEQA transportation impacts of a project. The evaluation of VMT is discussed in Impact 4.9-2 of this chapter.

It should be noted that Caltrans requires an encroachment permit to be obtained for all proposed activities related to the placement of encroachments within, under, or over the State highway ROWs. Examples of work requiring an encroachment permit include, but are not limited to, installation of utilities, excavations, vegetation planting or trimming, mailboxes, driveways, special events (such as festivals or sales), and commercial filming activities. The proposed pedestrian, bicycle, and transit facility improvements would require the project applicant to obtain an encroachment permit from Caltrans to construct improvements within the State highway ROW. As such, the proposed project would not conflict with Caltrans policy.

The following discussion assesses the proposed project's consistency with local plans and policies associated with pedestrian, bicycle, and transit facilities.

Pedestrian and Bicycle Facilities

The immediate project site vicinity currently lacks bicycle and pedestrian facilities. Therefore, the proposed project would not physically disrupt or interfere with existing bicycle or pedestrian facilities. In addition, the project would include construction of the following improvements:

- Class I shared-use path on the northern edge of SR 128 between Morgan Street and Timber Crest Road/PG&E Way;
- Westbound Class II bike lane on SR 128 between Morgan Street and Timber Crest Road/PG&E Way;

- Class II bike lanes on East Main Street between SR 128 and the northern project site boundary;
- Class I shared-use path on the eastern project site boundary between the northwest corner of the SR 128/Timber Crest Road/PG&E Way intersection and the northern project site boundary; and
- Sidewalks on internal roadways within the project site.

The location and type of bicycle and pedestrian facilities included as part of the proposed project would be consistent with those identified in the Bikeway System Master Plan and the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan. In addition, the new Class I shared-use path and westbound Class II bike lane on the northern side of SR 128 has been specifically anticipated as part of the Bikeway System Master Plan.

Based on the project's proposed land uses and location within the City, the proposed project would generate new demand for bicycle and pedestrian travel within the project site and along/across the portion SR 128 within the project vicinity. For example, future residents of neighborhoods situated along East Main Street south of SR 128 would desire to travel to commercial uses on the project site and, given the relatively short trip distance, could choose to walk or ride a bicycle to fulfill this trip. However, the 0.5-mile segment of SR 128 between Walnut Lane and Timber Crest Road/PG&E Way (i.e., along the southern project site frontage) currently lacks high-quality bicycle and pedestrian crossings, and the proposed project would not include the provision of such crossing facilities. Bicyclists and pedestrians who desire to cross SR 128 along the project frontage would be required to cross multiple lanes of uncontrolled vehicular traffic by way of legal unmarked crosswalks located at Morgan Street or East Main Street. Such a crossing would involve experiencing considerable exposure to conflicting vehicular traffic.

Bicyclists and pedestrians could choose to use existing high-quality crossings at Walnut Lane or Timber Crest Road/PG&E Way. However, use of these high-quality crossing locations would require substantial out of direction travel. For example, in the aforementioned example of residents living in neighborhoods along East Main Street south of SR 128, bicyclists and pedestrians attempting to access the proposed commercial uses would be required to travel approximately 0.25-mile out of direction in order to access the nearest existing high-quality crossing at Timber Crest Road/PG&E Way. Similarly, bicyclists and pedestrians traveling between Morgan Street south of SR 128 and project site uses near the SR 128/East Main Street intersection would be required to travel approximately 0.5-mile out of direction in order to access the nearest existing high-quality crossing location at Walnut Lane.

Given the lack of support for bicycle or pedestrian travel to and from the project site, as well as project-related increases to vehicular traffic within the project site vicinity, the proposed project would increase the number and severity of bicycle-vehicle and pedestrian-vehicle conflicts and increase the potential for collisions involving bicyclists and pedestrians.

Furthermore, while the location and type of the project's proposed improvements to on- and off-site bicycle and pedestrian facilities would be consistent with City and

Caltrans plans and policies that promote bicycle and pedestrian travel, the lack of existing or proposed high-quality bicycle and pedestrian crossings of SR 128 (and the resulting adverse effects on bicycle and pedestrian travel and safety) would be inconsistent with City and State plans and policies, including the General Plan Goal III.G. Finally, the lack of signalized pedestrian crossings at the SR 128/East Main Street intersection would be inconsistent with the City of Winters Design Guidelines, which require that all through cross streets on SR 128 between Dutton Street and I-505 include signalized crosswalks.

Finally, it should be noted that the proposed Class I shared-use path along SR 128 is currently designed with a width of eight feet, including landscaping on each side of the path. Such a design would be inconsistent with Caltrans standards, which require a paved width of eight feet plus two-foot shoulders of unobstructed all-weather surface on each side of a path.

Transit Facilities

The City of Winters is served by the Yolobus YOUR Ride on-demand microtransit service. The service provides point-to-point rides within the City (including the adjacent El Rio Villa community) and to/from the cities of Davis and Vacaville.

Currently, transit stops are not located adjacent to the project site and the closest bus stops are located on SR 128 east of Timber Crest Road/PG&E Way and on SR 128 west of Morgan Street. Development of the proposed project would not physically disrupt existing transit services or facilities or interfere with the implementation of planned future transit services or facilities.

The proposed project would include the construction of a new bus stop and turnout on westbound SR 128 west of East Main Street. City of Winters General Plan Policy III.B.3 requires bus turnouts and shelters in higher density residential and commercial areas and other areas as deemed appropriate. Given that the proposed project would include higher density residential and commercial uses, the construction of the proposed bus stop and turnout on westbound SR 128 at East Main Street would ensure consistency with this policy.

Conclusion

Based on the above information, the proposed project's bicycle and pedestrian facilities would not be consistent with policies contained in the City of Winters General Plan and the Bikeway System Master Plan. Additionally, the lack of support for bicycle or pedestrian travel to and from the project site and project-related increases to vehicular traffic within the project site vicinity would potentially increase both pedestrian-vehicle conflicts and the potential for collisions involving bicyclists and pedestrians. Therefore, the proposed project would conflict with a number of programs, plans, ordinances, or policies addressing transit, bicycle, or pedestrian facilities, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

4.9-1(a) Prior to issuance of grading permits, the project applicant shall obtain an encroachment permit from the California Department of Transportation (Caltrans) for all proposed improvements within the State Route (SR) 128 right-of-way (ROW). As part of obtaining an encroachment permit, the project applicant shall apply through the Caltrans Encroachment Permit System and submit a copy of the final improvement plans as part of the application package, showing the location and specifications of the proposed improvements to SR 128. The proposed improvements shown on the improvement plans, which shall also be subject to review and approval by the City Engineer as meeting the applicable standards of the City of Winters Design Guidelines, shall include, but not be limited to, the following:

1) *At the SR 128 (East Grant Avenue)/East Main Street intersection, installation of a traffic signal, marked crosswalks, bike lane conflict markings, and bicycle intersection crossing markings. The traffic signal shall provide temporal separation between bicyclists, pedestrians, and conflicting vehicular movements (e.g., through the provision of pedestrian crossing phases). This improvement shall be completed during Phase 1 of the proposed project, prior to construction of the 160th dwelling unit. This improvement is included as a citywide improvement project in the City's Traffic Impact Fee program and shall be reimbursed through the requisite impact fee to the City's fee program. Additionally, should either of the two properties bordering the future traffic signal develop in advance of the proposed project, the properties shall reimburse the proposed project for their fair share of the signal.*
2) *At the western project site boundary, contribution of a fair share towards the construction of a roundabout with marked crosswalks and physical separation between bicyclists and vehicles. The roundabout shall reduce approach speeds for vehicular traffic and enable crossing pedestrians to negotiate conflicting vehicular traffic, one direction at a time (i.e., through the provision of pedestrian refuge areas/splitter islands). This improvement is included as a citywide improvement project in the City's Traffic Impact Fee program. Accordingly, payment of the requisite impact fee to the City's fee program shall fulfill the project's mitigation obligation for this improvement.*
3) *Construction of new bicycle facilities on SR 128 according to standards set forth in the Caltrans Highway Design Manual. The required Class I shared-use path on the northern edge of SR 128, along the project site's southern boundary, shall include a minimum paved width of eight feet, plus two-foot shoulders of unobstructed all-weather surface on each side of the path. The provision of the proposed 12-foot paved path shall also satisfy the applicable Caltrans design requirements. The design of the bicycle facilities shall be submitted to Caltrans and the City of Winters for review and approval.*

4) Improvements of equal effectiveness as determined by the City Engineer.

Written verification of the encroachment permit shall be submitted to the City of Winters Community Development Department. The project applicant shall conduct all project activities in accordance with the permit provisions outlined therein.

4.9-2 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below, even with implementation of mitigation, the impact is *significant and unavoidable*.

As previously discussed, in accordance with OPR's Technical Advisory, the proposed commercial uses would satisfy the local-serving retail VMT screening criterion. However, because the proposed residential uses do not meet one or more of the screening thresholds discussed in the Methods of Analysis section above, the Transportation Study determined that the VMT generation would be considered significant if VMT exceeded 15 percent below SACOG's estimated existing 20.82 regional VMT per capita, or approximately 17.70 VMT per capita.

SACOG has prepared maps illustrating residential VMT per capita for areas throughout the six-county region (El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba). SACOG estimates that existing residential development throughout the City of Winters generates an average of 30.69 residential VMT per capita, which is 47 percent above the existing regional average of 20.82 residential VMT per capita. Because the proposed residential development would be expected to exhibit similar VMT characteristics as existing residential development within the City, the proposed project was estimated to have a VMT per capita of 30.69, consistent with the SACOG estimates. Thus, the project residential component is estimated to exceed a level of 15 percent below the existing regional VMT per capita.

Based on the above information, the proposed project could conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) under Existing Plus Project conditions, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of Mitigation Measure 4.9-2 would reduce residential VMT per capita associated with the project residential component by implementing transportation demand management (TDM) strategies to reduce external vehicle trips generated by the project. However, the effectiveness of the TDM strategies cannot be quantified at this time, and subsequent vehicle trip reduction effects cannot be guaranteed. Existing evidence indicates that the effectiveness of TDM strategies with regards to vehicle trip reduction could vary based on a variety of factors, including the context of the surrounding built environment (e.g., urban versus suburban) and the cumulative effect of multiple TDM strategies deployed together. Moreover, many TDM strategies are not just site-specific, but also rely on implementation and/or adoption by private entities (e.g., elective use of carpool program by office building tenants). Finally, even if implemented, TDM strategies are not guaranteed to sufficiently reduce project-

generated VMT to levels below the thresholds of significance. For example, VMT generated by the residential component of the project would need to decrease significantly to fall below the minimum 15 percent below the existing regional average residential VMT per capita threshold. Only limited evidence exists to suggest that conventional TDM strategies in rural/suburban settings are capable of achieving such trip reduction outcomes.

Based on the above, implementation of the following mitigation measure would reduce the above impact, but not to a less-than-significant level. Therefore, the impact would remain *significant and unavoidable*.

4.9-2 *Prior to issuance of the first building permit in the first phase of development, the applicant shall, to the extent feasible, implement transportation demand management (TDM) strategies to reduce the number of vehicle trips that would be generated by both the residential and commercial components of the project. The TDM program shall be submitted to the City Public Works Department for review and approval. Potential TDM strategies range from site design characteristics to on-going parking management and commute travel programs. The California Air Pollution Control Officers Association (CAPCOA) Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity identifies numerous TDM strategies and quantifies their potential vehicle trip reduction effects. Potential strategies that could be applicable to the project include:*

1. *Increase residential density;*
2. *Increase job density;*
3. *Provide transit-oriented development;*
4. *Implement commute trip reduction program;*
5. *Implement commute trip reduction marketing;*
6. *Provide ridesharing program;*
7. *Provide end-of-trip bicycle facilities;*
8. *Limit residential parking supply;*
9. *Unbundle residential parking costs from property costs;*
10. *Improve street connectivity;*
11. *Construct or improve bike boulevard;*
12. *Implement carshare program; and/or*
13. *Implement community-based travel planning.*

4.9-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Based on the analysis below, the impact is *less than significant*.

The proposed project would include two new entry points along SR 128, a connection to the existing residential neighborhood through the extension of Broadview Lane, a new connection to the approved Walnut Lane 10 subdivision to the northwest of the project site, and associated improvements. The proposed project's internal circulation system would consist of several streets with circulation to all residences within the

subdivision. The project would include construction of sidewalks and gutters pursuant to applicable standards along the internal streets. Eight-foot margins along the sides of each residential street would allow for street parking.

The proposed project's street frontage, roadways, and access points would be designed in accordance with all applicable standards in the City's Municipal Code. Such standards would include, but not be limited to, Sections 17.76.040 through 17.76.060, which include requirements related to landscaping maintenance, materials, and irrigation; Section 12.04.010, which pertains to limits on street disturbance in the form of holes or trenches; Sections 16.01.040 and 16.01.050, which establish provisions for filing a complete application for a tentative map, including the location, pavement, and ROW width, grade, and names of existing and proposed streets; Section 17.72.050, which includes design standards for parking spaces and lots; and Section 17.36.040, which pertains to major design review requirements for single-family subdivisions. As such, all designs of the proposed project related to transportation would be required to meet City regulations, which would ensure the proposed project does not substantially increase danger from hazardous roadway design features.

Additionally, the proposed residential and commercial uses would be more compatible with land uses surrounding the site than the existing agricultural uses. As such, the project would not be anticipated to increase hazards through incompatible uses. While equipment and vehicles related to construction activities would be present during the construction period of the project, such vehicles and equipment would only be temporarily on-site and would be clearly marked by warning signs and barriers to prevent hazardous interactions with members of the public.

With respect to incompatible uses related to farm equipment, an agricultural field is located north of the project site across an unpaved access road. Farm equipment could be reasonably expected to use the road on occasion. The proposed project would terminate the proposed extension of East Main Street at the access road. However, the Transportation Study concludes that increases to vehicle trips associated with the project would be concentrated on SR 128, particularly between the project site and the I-505 interchange. While more frequent interactions with farming-related vehicles could result from development of the proposed project, there would remain ample areas along the roadway for passing, and personal vehicles would be able to take alternative routes to the same areas accessible by the unpaved roadway. Overall, because the proposed project would comply with City standards, be compatible with surrounding uses, and would provide sufficient space for personal vehicles and farming equipment to pass, an increase in accidents as compared to existing conditions is not anticipated.

Based on the above information, the proposed project would not conflict with any design standards protecting against transportation-related hazards. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.9-4 Result in inadequate emergency access. Based on the analysis below, the impact is *less than significant*.

As mentioned above, the proposed project's street frontage, roadways, and access points would be required to be designed in accordance with all applicable standards established in the City's Municipal Code. Such standards would include, but not be limited to, sections intended to keep the roadways clear, such as Section 12.04.010 and Section 10.20.050, as well as standards related to street design of primary and minor residential streets. Compliance with such standards would ensure that emergency vehicles and police patrol would have adequate access to the proposed project.

The proposed project would include two entry points from SR 128, as well as connection to the existing residential neighborhood to the west by way of an extension of Broadview Lane and a new connection to the approved Walnut Lane 10 subdivision. The streets would be between 40 and 60 feet wide (curb to curb), with the exception of the 76-foot-wide portion of the East Main Street connecting to SR 128. Overall, the proposed roadways would be wide enough to allow for adequate emergency vehicle access.

The comment letters and verbal comments on the scope of the EIR during the Notice of Preparation (NOP) public review period included concerns related to an increase in traffic during an evacuation scenario as a result of implementation of the proposed project. As discussed throughout this chapter, the proposed project would provide adequate ROW. As noted above, the proposed project would include two entry points from SR 128, as well as connection to the existing residential neighborhood to the west by way of an extension of Broadview Lane and a new connection to the approved Walnut Lane 10 subdivision. Furthermore, as discussed in Chapter 4.8, Public Services and Utilities, of this EIR, the Winters Fire Department (WFD) response time goal from dispatch to on-scene is five minutes and 20 seconds. The average response time for calls within the City was three minutes and 51 seconds in 2022, which meets the goal. The response time goal is anticipated to be feasible for servicing the proposed project given the proximity of the project site to Station 26, located approximately one mile to the southwest of the project site. Additionally, as discussed under the Existing Environmental Setting section above, the project applicant would be required to pay the City's applicable Facility Fees. The funds gathered would be used to construct new and expand existing public service facilities within the City's Planning Area. Payment of the Facility Fees would ensure that adequate police and fire protection facilities are available to serve the project, including in the event of an evacuation. Finally, as previously mentioned, the project applicant would be required to comply with the standards established by the City's Municipal Code to ensure that emergency vehicles would have adequate access to the proposed project.

Based on the above information, the proposed project would not hinder emergency access to the site to the extent that access would be deemed inadequate, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

For further detail related to the cumulative setting of the proposed project, refer to Chapter 5, Statutorily Required Sections, of this EIR.

It should be noted that increased traffic volumes on local roadway facilities under cumulative conditions would not substantially alter performance related to bicycle facilities, pedestrian facilities, transit facilities and services, and emergency vehicle access. Rather, impacts to such facilities under cumulative plus project conditions would be similar to those discussed above under Impacts 4.9-1, 4.9-2, and 4.9-4. In addition, construction activities associated with the project would be complete prior to the cumulative analysis year of 2036, as identified by the Transportation Study. Therefore, such topics are not discussed further in the cumulative analysis presented herein.

Similarly, the VMT impact analysis presented herein would also apply to cumulative plus project conditions. The VMT significance threshold compares project-generated VMT per unit of development to that of existing local development. The VMT comparison is useful because the comparison provides information regarding how the project aligns with long-term environmental goals related to VMT established based on existing development levels. Use of VMT significance thresholds based on existing development levels is recommended in the OPR's Technical Advisory. The Technical Advisory indicates that VMT efficiency metrics, such as VMT per service population or VMT per unit of development, may not be appropriate for CEQA cumulative analysis because they employ a denominator. Instead, the Technical Advisory recommends that an impact finding from an efficiency-based project-specific VMT analysis (i.e., existing plus project conditions) would imply an identical impact finding for a cumulative VMT analysis.[8] An example provided by OPR explains that a project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would not have cumulative impacts distinct from the project impact. Therefore, an analysis of VMT is not presented in this cumulative discussion as the conclusion would remain identical to that presented under Impact 4.9-2, which identified a significant and unavoidable impact.

[8] Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA* [pg. 6]. December 2018.

5. Statutorily Required Sections

5. STATUTORILY REQUIRED SECTIONS

5.1 INTRODUCTION

The Statutorily Required Sections chapter of the Draft EIR includes discussions regarding those topics that are required to be included in an EIR, pursuant to CEQA Guidelines, Section 15126.2. The chapter includes a discussion of the proposed project's potential to result in growth-inducing impacts; the cumulative setting analyzed in this EIR; significant irreversible environmental changes; and significant and unavoidable impacts caused by the proposed project.

5.2 GROWTH-INDUCING IMPACTS

State CEQA Guidelines Section 15126.2(d) requires an EIR to evaluate the potential growth-inducing impacts of a proposed project. Specifically, an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, including the elimination of obstacles to growth, or by encouraging and/or facilitating other activities that could induce growth. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped.

The CEQA Guidelines are clear that while an analysis of growth-inducing effects is required, it should not be assumed that induced growth is necessarily beneficial, detrimental, or of little significance. This analysis examines the following potential growth-inducing impacts related to implementation of the proposed project and assesses whether these effects are significant and adverse (see CEQA Guidelines, Section 15126.2[d]):

1. Foster population and economic growth and construction of housing.
2. Eliminate obstacles to population growth.
3. Affect service levels, facility capacity, or infrastructure demand.
4. Encourage or facilitate other activities that could significantly affect the environment.

Foster Population and Economic Growth and Construction of Housing

As discussed throughout the Initial Study (IS) prepared for the proposed project and this EIR, the proposed project would include development of the site with 188 single-family residential units, up to 57 townhome units, up to 84 high-density residential units, approximately 37,000 square feet (sf) of commercial space, and 6.9 acres of parkland. The 329 total additional residences would increase the available housing within the Winters area, which would be expected to increase population in the area. Using the U.S. Census Bureau's average household size of 2.97 persons per household for the City of Winters, the proposed project would house an estimated 978 new residents (2.97 persons/unit x 329 units).

Currently, 33.7 acres of the project site is designated Low Density Residential (LR), along with 14.7 acres of Neighborhood Commercial (NC) and 13.5 acres of Open Space (OS). As

discussed in Chapter 4.6, Land Use, of this EIR, development of the site consistent with the site's existing land use designations would result in a total of 246 residential units. Using the 2.97 persons/household rate, such development would result in a total of 731 new residents.

Through City approval of the proposed General Plan Amendment (GPA), the project site would additionally include the following designations: Medium Density Residential (MR), Medium High Density Residential (MHR), and High Density Residential (HR), which would result in a total of 329 residential units. Approval of the proposed project could, thus, result in 978 new residents, a net increase of approximately 247 residents beyond what is currently anticipated for the site by the General Plan. However, as discussed further in Chapter 4.6, Land Use and Planning/Population and Housing, of this EIR, the General Plan anticipated up to 14,200 new residents, a near doubling of the City's current population. In addition, the City has anticipated buildout to include a total of 4,794 new dwelling units and approximately 578,000 sf of commercial uses.[1] An increase of 731 new residents equates to an approximately 5.1 percent increase of the planned population growth, while the 247 residents that had not been anticipated would make up approximately 1.7 percent.

Appendix G of the CEQA Guidelines has been recently amended to clarify that unplanned population growth would be considered a potentially significant impact. Growth that is planned, and the environmental effects of which have been analyzed in connection with a land use plan or a regional plan, should not by itself be considered an impact. Consequently, as discussed in further detail under Impacts 4.6-2 and 4.6-5 within the Land Use and Planning/Population and Housing chapter of this EIR, the proposed project would result in population growth within the City of Winters, but such growth would be within the buildout projections for the City of Winters. Thus, while the proposed project would foster population and economic growth associated with the single-family residences, multi-family residences, and townhome community, such growth would be similar to what has been previously anticipated for the project area. All physical environmental effects of the proposed project, including the proposed residential development, have been addressed throughout this EIR and the Initial Study prepared for the proposed project.

Eliminate Obstacles to Population Growth

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services, would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

As discussed further in Chapter 4.8, Public Services and Utilities, of this EIR, water service to the project site would be provided by connections to existing water supply lines in the surrounding vicinity, such as the 12-inch water line in Almond Drive and the eight-inch water line in Broadview Lane west of the site, as well as the existing 14-inch line in SR 128. Similarly, the proposed project would include new connections to existing sewer infrastructure either in existing ROWs, such as SR 128, or within areas proposed for disturbance as part of the proposed internal roadway network, which would convey wastewater generated by the proposed project to the City wastewater treatment facility (WWTF). All new on-site infrastructure

[1] City of Winters. *Circulation Master Plan and Roadway Impact Fee Program Update* [pg. 19]. November 2018.

would be sized to accommodate the proposed project only and would be financed by the project applicant.

As discussed throughout this EIR, the proposed project would include a connection to SR 128 at the project site's southern boundary, as well as the construction of an internal roadway network, allowing vehicles to travel to the undeveloped Walnut 10 parcel. While the extension of East Main Street would eliminate physical obstacles to undeveloped areas, the areas are already planned for development. Because the surrounding area would result in population growth with or without the proposed project, the extension and construction of the roadways would not be considered the elimination of an obstacle to population growth.

The project site is located within the City's Urban Limit Line, which defines the General Plan Area and the area of projected City growth. Therefore, development of the site with urban uses has been previously anticipated. The roadway and utility infrastructure improvements represent City-planned improvements that have been previously anticipated to occur despite implementation of the proposed project. As such, the improvements included as part of the proposed project would be considered to eliminate obstacles to growth that were not previously anticipated for the area.

Affect Service Levels, Facility Capacity, or Infrastructure Demand

Increases in population that would occur as a result of a proposed project may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental impacts. As discussed in Chapter 4.8, Public Services and Utilities, of this EIR, increased demands for fire protection services attributable to the proposed project would necessitate the need for additional resources for the Winters Fire Department (WFD) as well as the Winters Police Department (WPD). However, the project applicant would be subject to payment of development fees and contribution to tax revenue funds. As such, impacts to fire service would be mitigated to the extent feasible. In addition, as discussed previously, wastewater generated by the proposed project could be accommodated by existing wastewater treatment facilities and infrastructure, and existing water supply infrastructure exists to accommodate the flow demands associated with the proposed project.

Based on the above, the proposed project would not increase population such that service levels, facility capacity, or infrastructure demand would require construction of new facilities that could cause significant environmental impacts.

Encourage or Facilitate other Activities That Could Significantly Affect the Environment

This EIR and the Initial Study prepared for the proposed project provide a comprehensive assessment of the potential for environmental impacts associated with implementation of the proposed project. Please refer to Chapters 4.1 through 4.9 of this EIR, as well as the attached IS, which comprehensively address the potential for impacts from urban development on the project site.

5.3 CUMULATIVE IMPACTS

CEQA Guidelines, Section 15130 requires that an EIR discuss the cumulative and long-term effects of the proposed project that adversely affect the environment. "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines, Section 15355).

"[I]ndividual effects may be changes resulting from a single project or a number of separate projects" (CEQA Guidelines, Section 15355, subd. [a]). "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines, Section 15355, subd. [b]).

The need for cumulative impact assessment reflects the fact that, although a project may cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the increment may be "cumulatively considerable," and, thus, significant, when viewed together with environmental changes anticipated from past, present, and probable future projects (CEQA Guidelines, Section 15064, subd. [h(1)], Section 15065, subd. [c], and Section 15355, subd. [b]). Accordingly, particular impacts may be less than significant on a project-specific basis but significant on a cumulative basis if their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable. However, it should be noted that CEQA Guidelines, Section 15064, Subdivision (h)(4) states, "[…]the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable.

Section 15130(b) of CEQA Guidelines indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, but that analysis should reflect the severity of the impacts and their likelihood of occurrence, and that the analysis should be focused, practical, and reasonable. To be adequate, a discussion of cumulative effects must include the following elements:

(1) Either (a) a list of past, present and probable future projects producing related or cumulative impacts, including, if necessary, those outside the agency's control, or (b) a summary of projections contained in an adopted general plan or related planning document, or in a prior certified EIR, which described or evaluated regional or area-wide conditions contributing to the cumulative impact, provide that such documents are referenced and made available for public inspection at a specified location;

(2) A summary of the individual projects' environmental effects, with specific reference to additional information and stating where such information is available; and

(3) A reasonable analysis of all of the relevant projects' cumulative impacts, with an examination of reasonable, feasible options for mitigating or avoiding the project's contribution to such effects (Section 15130[b]).

For some projects, the only feasible mitigation measures will involve the adoption of ordinances or regulations, rather than the imposition of conditions on a project-by-project basis (Section 15130[c]). Section 15130(a)(3) states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund the project's fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

Cumulative Setting

The lead agency should define the relevant geographic area of inquiry for each impact category (id., Section 15130, subd. [b][3]), and should then identify the universe of "past, present, and probable future projects producing related or cumulative impacts" relevant to the various categories, either through the preparation of a "list" of such projects or through the use of "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact" (id., subd. [b][1]).

As discussed above, there are two approaches to identifying cumulative projects and their associated impacts. The "list" approach identifies individual projects known to be occurring or proposed in the surrounding area in order to identify potential cumulative impacts. The "projection" approach uses a summary of projections in adopted General Plans or related planning documents to identify potential cumulative impacts. This EIR uses the projection approach for the cumulative analysis and considers the development anticipated to occur upon buildout of the City of Winters General Plan, as well as other reasonably foreseeable projects within the project region.

Limited situations exist where the geographic setting differs for the various resource areas. For example, the cumulative geographic setting for air quality is the Sacramento Valley Air Basin (SVAB), which is the air basin that the proposed project is located within. Global climate change is, by nature, a cumulative impact. Emissions of Greenhouse Gases (GHG) contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts). A single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the combination of GHG emissions from a project in combination with other past, present, and future projects could contribute substantially to the world-wide phenomenon of global climate change and the associated environmental impacts. Although the geographical context for global climate change is the Earth, for analysis purposes under CEQA, and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the proposed project, the geographical context for global climate change in this EIR is limited to the State of California.

In addition, as discussed in Chapter 4.9, Transportation, of this EIR, the cumulative traffic analysis within the Transportation Study relied on the Sacramento Area Council of Governments (SACOG) travel demand model using 2036 as the analysis year. The cumulative scenario considered the operational effects of project buildout alongside reasonably foreseeable land use and transportation system changes identified in the City of Winters General Plan and Circulation Master Plan. Such changes include planned improvements to the surrounding roadways, including, but not limited to: the widening of SR 128 from two to four lanes between East Main Street and Interstate 505 (I-505); the installation of new traffic signals at the SR 128/East Main Street intersection and the SR 128/I-505 southbound ramps; and the installation of new roundabouts at the intersections of SR 128 with Dutton Street and Morgan Street. The Transportation Study assumes that the planned SR 128/East Main Street and SR 128/I-505 southbound ramp traffic signals were not constructed to isolate the extent to which the increased traffic associated with the proposed project would require their installation.

Cumulative impacts are analyzed in each of the technical chapters of this EIR, where the specific cumulative setting for each resource area is presented, along with the cumulative impact discussion and any mitigation measures required, if necessary, in the relevant resource area section of the EIR.

5.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Per CEQA Guidelines Section 15126.2(d), this EIR is required to include consideration of significant irreversible environmental changes that would be caused by the proposed project, should the project be implemented. CEQA Guidelines Section 15127 states that this impact category need be included only in EIRs prepared in connection with certain categories of projects, one of which is "[t]he adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency." Although the proposed project is not itself a plan, policy, or ordinance, the proposed project does propose amendments to the General Plan. For this reason, the City has conservatively chosen to address this impact category.

An impact would be determined to be a significant and irreversible change in the environment if:

- Buildout of the project area could involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of development could generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- Development of the proposed project could involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing and eventual development of the project could result in an unjustified consumption of resources (e.g., the wasteful use of energy).

The proposed project would likely result in, or contribute to, the following significant irreversible environmental changes:

- Conversion of vacant land to a fully built-out residential community with a commercial space, thus precluding alternative land uses in the future; and
- Irreversible consumption of goods and services, such as fire, police, and school services, associated with the future population; and
- Irreversible consumption of energy and natural resources, such as water, electricity, and natural gas, associated with the future residents.

If the Winters City Council chooses to approve the proposed project, the City Council will be concluding that the irreversible environmental changes, and the natural resource consumption that accompanies them, are justified in light of the economic, social, or other benefits that the City Council might invoke in approving the project. For example, the City Council might conclude that the economic and social benefits created by 329 new homes justify the irretrievable loss of environmental and natural resources.

5.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS

According to CEQA Guidelines, an EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented (CEQA Guidelines Section 15126.2[c]). Such impacts would be considered unavoidable when the determination is

made that either mitigation is not feasible or only partial mitigation is feasible such that the impact is not reduced to a level that is less-than-significant. This section identifies significant impacts that could not be eliminated or reduced to a less-than-significant level by mitigations imposed by the City. The final determination of the significance of impacts and the feasibility of mitigation measures would be made by the City as part of the City's certification action. The significant and unavoidable impacts of the proposed project are summarized below.

4.2-1 Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

As discussed in Chapter 4.2, Agricultural Resources, of this EIR, 52.3 acres of the 61.9-acre project site is designated as Prime Farmland by the Farmland Mapping and Monitoring Program (FMMP), which is part of the California Department of Conservation (DOC) Division of Land Resource Protection. Thus, development of the proposed project would permanently convert 52.3 acres of Prime Farmland to non-agricultural use. Even with implementation of Mitigation Measure 4.2-1, which requires preservation of active agricultural acreage equal to each phase of the proposed project, the Prime Farmland on-site would be permanently converted to non-agricultural uses, and the impact would remain *significant and unavoidable.*

4.2-3 Involve changes in the existing environment which, due to their location or nature, could cumulatively result in loss of Farmland to non-agricultural use.

As discussed in Chapter 4.2, Agricultural Resources, of this EIR, the City's General Plan EIR determined that buildout of the General Plan would convert an estimated 610 acres of Prime Farmland to nonagricultural uses. Even with implementation of all applicable General Plan policies, the General Plan EIR concluded that the impact would be significant and unavoidable. The project site consists of 52.3 acres of Prime Farmland, 4.6 acres of Farmland of Local Potential, and five acres of Other Land. While implementation of Mitigation Measure 4.2-1 would reduce impacts related to the conversion of agricultural land to non-agricultural use, the impact would not be reduced to a less-than-significant level, as the proposed project would result in a permanent conversion of Farmland. Development of the proposed project, as well as other development within the City's General Plan planning area located on lands designated as Farmland would contribute to the aforementioned cumulative impact related to the loss of Farmland identified by the City of Winters. Therefore, even with implementation of Mitigation Measure 4.2-1, the project's incremental contribution to the cumulative impact is *cumulatively considerable* and *significant and unavoidable*.

4.3-7 Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, of this EIR, discusses how buildout of the proposed project would contribute to increases of GHG emissions that are associated with global climate change during construction and operation. As discussed under Impact 4.3-7, project-specific information is not available to ensure that the proposed project would be designed and constructed without natural gas infrastructure, or to ensure that the proposed project would be designed to include the required number of Electric Vehicle Ready spaces. As such, Mitigation Measure 4.3-7(a) would ensure project compliance with the Best Management Practices (BMPs) required by the Sacramento Metropolitan Air Quality Management District (SMAQMD), as recommended by the Yolo-Solano Air Quality Management District (YSAQMD).

However, as discussed further in Chapter 4.9, Transportation, of this EIR, the proposed residential development would exceed the applicable threshold for vehicle miles traveled (VMT), which is a level of 15 percent below the existing regional VMT per capita. Implementation of Mitigation Measure 4.9-2 would reduce residential VMT per capita by implementing transportation demand management (TDM) strategies to reduce external vehicle trips generated by the project. Although implementation of Mitigation Measure 4.9-2 would reduce project VMT, the reduction would not reach a level that would achieve 15 percent less than the regional average VMT. Therefore, even with implementation of Mitigation Measure 4.9-2, the project would not comply with SMAQMD BMP-3. Consequently, the project's incremental contribution to the cumulatively significant effects of GHG emissions and global climate change would remain *cumulatively considerable* and *significant and unavoidable*.

4.9-2 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) under Existing Plus Project conditions.

As discussed in Chapter 4.9, Transportation, of this EIR, the proposed project would include residential development that would be expected to exhibit a VMT per capita of 30.69, consistent with the SACOG estimates for existing residential development within the City. Thus, the project residential component is estimated to exceed a level of 15 percent below the existing regional VMT per capita. Implementation of Mitigation Measure 4.9-2 would reduce residential VMT per capita by implementing TDM strategies. However, the effectiveness of the TDM strategies cannot be quantified at this time, and subsequent vehicle trip reduction effects cannot be guaranteed. TDM strategies could vary based on a variety of factors, including the context of the surrounding built environment and the cumulative effect of multiple TDM strategies. Moreover, many TDM strategies are not just site-specific, but also rely on implementation and/or adoption by private entities (e.g., elective use of carpool program by office building tenants). Finally, even if implemented, TDM strategies are not guaranteed to sufficiently reduce project-generated VMT to levels below the thresholds of significance. Therefore, implementation of Mitigation Measure 4.9-2 would reduce the above impact, but not to a less-than-significant level. Therefore, the impact would remain *significant and unavoidable*.

6. Alternatives Analysis

6. ALTERNATIVES ANALYSIS

6.1 INTRODUCTION

The Alternatives Analysis chapter of the EIR includes consideration and discussion of a range of reasonable alternatives to the proposed project, as required by CEQA Guidelines Section 15126.6. Generally, the chapter includes discussions of the following: the purpose of an alternatives analysis; alternatives considered but dismissed; a reasonable range of project alternatives and their associated impacts in comparison to the proposed project's impacts; and the environmentally superior alternative.

6.2 PURPOSE OF ALTERNATIVES

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to "[…] describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> [...]capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Section 15126.6(f) of CEQA Guidelines states, "The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." Section 15126.6(f) of CEQA Guidelines further states:

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

In addition, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

The CEQA Guidelines provide the following guidance for discussing alternatives to a proposed project:

- An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6[a]).
- Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if

these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CEQA Guidelines Section 15126.6[b]).

- The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination […] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6[c]).
- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison (CEQA Guidelines Section 15126.6[d]).
- If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines Section 15126.6[d]).
- The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (CEQA Guidelines Section 15126.6[e][1]).
- If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

Project Objectives

Based on the above, reasonable alternatives to the project must be capable of feasibly attaining most of the basic objectives of the project. The proposed project is being pursued with the following objectives:

1. Create a land use plan that contains a mix of land uses and residential product types that satisfy City policies, regulations and expectations as discussed in the Winters General Plan;
2. Provide for a sufficient number of residential units to attract merchant builders and allow a mix of housing choices at varying densities to respond to a range of market segments, including opportunities for rental units and affordable housing consistent with the General Plan and Housing Element;
3. Add new affordable housing units which will assist the City of Winters in achieving the City's Regional Housing Needs Allocation (RHNA) requirements;
4. Include commercially designated land that utilizes the project's frontage and adjacency to Grant Avenue to support the needs of local residents and capture the benefits of drive-by traffic;
5. Designate park and open space areas to provide opportunities for outdoor recreation and exercise to encourage healthy lifestyles for future residents and adjacent neighborhoods;

6. Provide a comprehensively planned neighborhood in an infill location that is effectively served by existing and proposed infrastructure in a manner that allows for efficient, orderly, and logical development and discourages leapfrog or piecemeal development and sprawl;
7. Incorporate drainage detention and water quality features that mitigate for the impacts of the project and also contribute toward the more comprehensive solution identified in the City of Winters Storm Drainage Master Plan Northeast Area;
8. Create a neighborhood that can be logically and efficiently phased to allow for the orderly buildout of the project and installation of improvements to the infrastructure systems;
9. Provide a roadway system that allows connectivity between existing and proposed neighborhoods and parks and for two points of access to allow safe ingress and egress, and service by infrastructure systems and emergency services;
10. Provide a circulation system that interconnects land uses and promotes pedestrian, bicycle, and transit options that will encourage non-vehicular trips, thereby reducing vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions;
11. Create a development that has an overall positive economic impact on the City of Winters and has a neutral or positive fiscal impact on City finances and existing rate payers; and
12. Provide a quality development on East Grant Road that contributes to the beautification of this gateway entry into the City of Winters from the Interstate 505 (I-505) interchange.

Significant Impacts Identified in the EIR

In addition to attaining the majority of project objectives, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. The significant and unavoidable impacts identified in the EIR are presented below.

Significant and Unavoidable

The EIR has determined that the following project impact would remain significant and unavoidable, even after implementation of the feasible mitigation measures set forth in this EIR:

- ***Agricultural Resources.*** The EIR determined that, even with the implementation of mitigation, the proposed project would result in a significant and unavoidable impact related to the loss of Prime farmland to non-agricultural use. In addition, the EIR determined that, even with the implementation of mitigation, the proposed project would significantly and unavoidably contribute to the cumulative changes in the existing environment which, due to their location or nature, could result in loss of Farmland to non-agricultural use.

- ***Air Quality, Greenhouse Gas Emissions, and Energy.*** The EIR determined that, even with the implementation of mitigation, the proposed project's contribution to the cumulative generation of GHG emissions that would have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs in combination with future buildout of the General Plan planning area would be cumulatively considerable and significant and unavoidable.

- ***Transportation.*** The EIR determined that, even with the implementation of mitigation, the proposed project would result in a significant and unavoidable impact related to conflicting or being inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) related to VMT.

6.3 SELECTION OF ALTERNATIVES

The requirement that an EIR evaluate alternatives to the proposed project or alternatives to the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained, while reducing the magnitude of, or avoiding, one or more of the significant environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the CEQA Guidelines require the EIR to "set forth only those alternatives necessary to permit a reasoned choice." As stated in Section 15126.6(a), an EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and thus limit the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines Section 15126.6(f):

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> ...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

Alternatives Considered But Dismissed From Further Analysis

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant project impacts, while still meeting most of the basic project objectives. As stated in Guidelines Section 15126.6(c), among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are:

(i) failure to meet most of the basic project objectives,
(ii) infeasibility, or
(iii) inability to avoid significant environmental impacts.

Regarding item (ii), infeasibility, among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). The foregoing factors do not establish a fixed limit on the scope of reasonable alternatives.

The off-site alternative was considered but dismissed from detailed analysis in this EIR. The reason(s) for dismissal, within the context of the three above-outlined permissible reasons, are provided below.

Off-Site Alternative

An Off-Site Alternative would involve construction of the proposed project on an alternative site. As previously discussed, the purpose of an alternatives analysis to avoid or substantially lessen at least one of the significant environmental effects identified as a result of the project, while still meeting most, if not all, of the basic project objectives.

The possibility of an off-site location was considered as an alternative to the proposed project. The City's Geographic Information System (GIS) database was consulted to provide information regarding properties in the area of sufficient size to accommodate the proposed project. The locations of such properties are illustrated in Figure 6-1 below. In considering sites potentially available for future development, the objectives of the proposed project were used to assess the suitability of available sites.

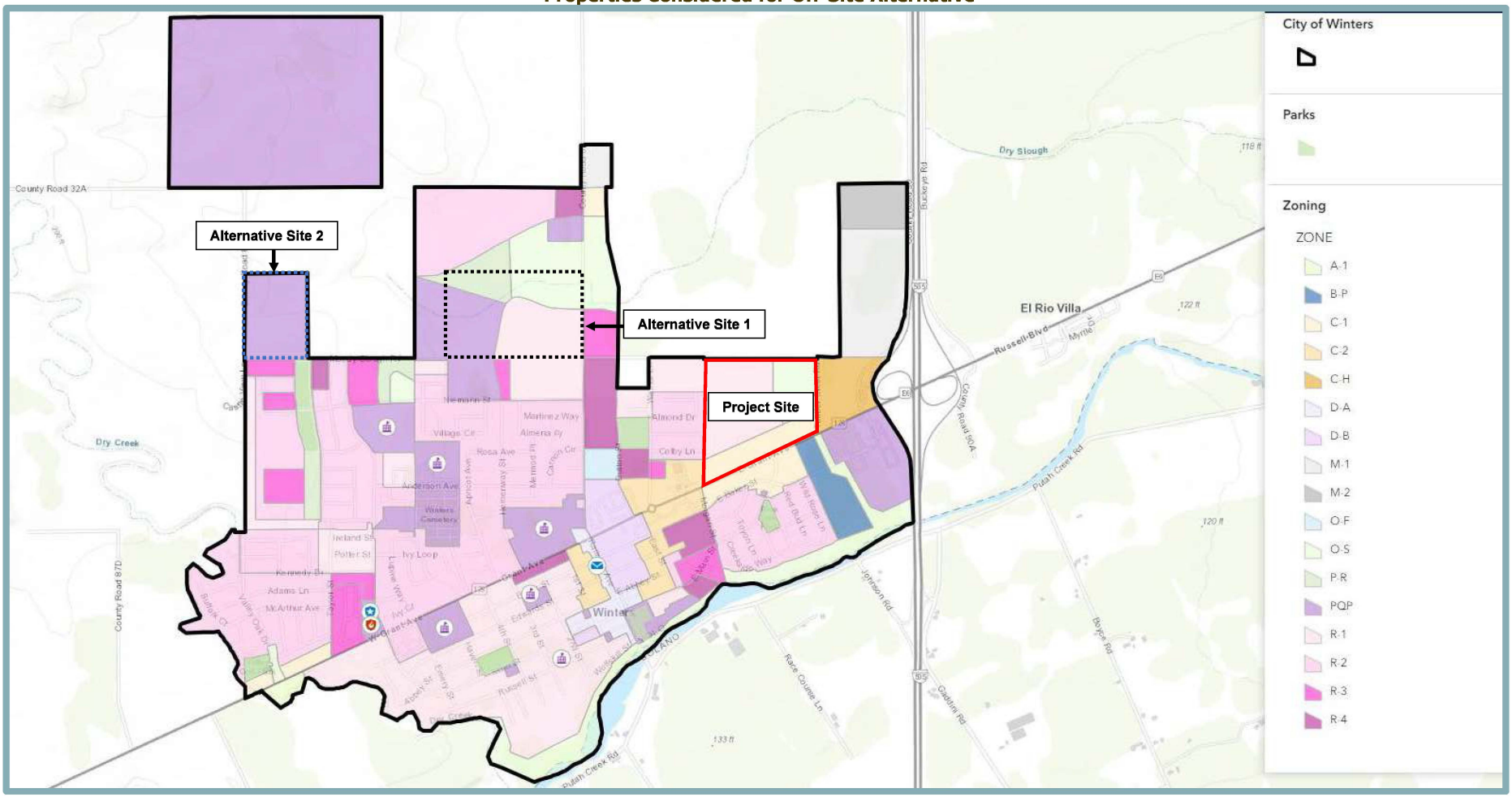
Site 1 is comprised of an approximately 60-acre portion of a larger 156.60-acre parcel located north of the eastern terminus of Moody Slough Road and west of Railroad Avenue. While Site 1 is currently developed with agricultural uses and a single-family residence, the site is designated and zoned for a mixture of low-density residential, open space, parks and recreational, and public/quasi-public uses.

As discussed throughout this chapter, CEQA Guidelines Section 15126.6(b) provides that only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in this EIR. One of the significant and unavoidable impacts identified for the proposed project is related to transportation, specifically VMT. Development at Site 1 would have the same type and intensity of uses as the proposed project. Because commute characteristics and access to public transit services would likely be similar to the project vicinity, development at Site 1 would be expected to result in similar, if not greater, VMT per capita as compared to the proposed project. Thus, Site 1 would not avoid the significant and unavoidable impacts identified by this EIR related to transportation. Similarly, because Site 1 is currently used for agricultural purposes, development at Site 1 would not avoid the identified significant and unavoidable impacts related to conversion of agricultural land to non-agricultural uses.

In addition, development of the proposed project at Site 1 would not be capable of meeting multiple project objectives, including: Objective #4, which is related to including commercially designated land adjacent to Grant Avenue to support the needs of local residents and capture the benefits of drive-by traffic; and Objective #12, related to providing a quality development on East Grant Road that contributes to the beautification of the entry into the City from the I-505 interchange. Therefore, Site 1 would not be a feasible off-site location capable of meeting all project objectives.

Site 2 is an approximately 30-acre undeveloped parcel located within the current City limits northeast of the Moody Slough Road/Neimann Street intersection. However, a portion of the Highland Canal flows through the northern half of the site. As such, biological resources impacts would be expected to be similar or increased as compared to the proposed project, and risks associated with flood hazards would be increased.

Figure 6-1
Properties Considered for Off-Site Alternative



In addition, while Site 2 includes sufficient acreage to accommodate single-family residential units, the parcel is significantly smaller than the project site, and thus, would not be able to accommodate a similar number of units as the proposed project. In order to accommodate an addition of approximately 31.9 acres, Site 2 would require annexation of adjacent acreage into the City limits. The surrounding uses to Site 2 include a single-family residence to the north, and agricultural land to the east and west. Because the additional acreage would likely be located to the east of Site 2, based on infill development purposes, impacts to agricultural resources would be expected to be similar or increased as compared to the proposed project.

It should also be noted that the project site is located in an area served by existing regional infrastructure and arterial roadways and is located adjacent to existing urban development in the City of Winters, as well as planned urban areas, such as the Walnut 10 parcel. Development of the proposed project at one of the aforementioned off-site locations within the City would be anticipated to require the extension of additional infrastructure and public services compared to the project site, and would not likely represent an efficient use of existing public investments.

Overall, off-site alternatives that could accomplish the project objectives or accommodate a similar type and intensity of development as the proposed project are not considered feasible. As a result, the Off-Site Alternative is dismissed from detailed evaluation.

Alternatives Considered in this EIR

The following alternatives are considered and evaluated in this section:

- No Project (No Build) Alternative;
- Buildout Pursuant to Existing General Plan Alternative; and
- Agricultural Preservation Alternative.

Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative's impacts in comparison to the proposed project. As discussed above, reasonable alternatives to the project must be capable of avoiding or substantially lessening a new significant impact or substantial increase in severity of a significant impact, as identified by this EIR. Therefore, this chapter focuses on the resource areas and specific impacts listed above that have been identified in this EIR for the proposed project as requiring mitigation to reduce significant impacts to a less than significant level, or have been found to remain significant and unavoidable. While an effort has been made to include quantitative data for certain analytical topics, where possible, qualitative comparisons of the various alternatives to the project are primarily provided. Such an approach to the analysis is appropriate as evidenced by CEQA Guidelines Section 15126.6(d), which states that the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

The analysis evaluates impacts that would occur with the alternatives relative to the significant impacts identified for the proposed project. When comparing the potential impacts resulting from implementation of the foregoing alternatives, the following terminology is used:

- "Fewer" = Less than Proposed Project;
- "Similar" = Similar to Proposed Project;
- "Greater" = Greater than Proposed Project; and
- "None" = No impact.

When the term "fewer" is used, the reader should not necessarily equate this to elimination of significant impacts identified for the proposed project. For example, in many cases, an alternative would reduce the relative intensity of a significant impact identified for the proposed project, but the impact would still be expected to remain significant under the alternative, thereby requiring mitigation. In other cases, the use of the term "fewer" may mean the actual elimination of an impact identified for the proposed project altogether. Similarly, use of the term "greater" does not necessarily imply that an alternative would require additional mitigation beyond what has been required for the proposed project. To the extent possible, this analysis will distinguish between the two implications of the comparative words "fewer" and "greater."

See Table 6-2 at the end of the chapter for a comparison of the environmental impacts resulting from the considered alternatives and the proposed project.

No Project (No Build) Alternative

CEQA requires the evaluation of the comparative impacts of the "No Project" alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the no project alternative shall:

> "… discuss […] existing conditions […] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (*Id.*, subd. [e][2]) "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the 'no project' alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in the property's existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed. In certain instances, the no project alternative means 'no build,' wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." (*Id.*, subd. [e][3][B]).

The No Project (No Build) Alternative assumes that the current conditions of the project site would remain, and the site would not be developed. As described in this EIR, the project site has been farmed, and thus, periodically tilled for row crops, hay, or other types of dry farming. Currently, the site is used for annual row crops. Vegetation within the project site consists primarily of ruderal non-native species, and the perimeter of the site contains numerous trees and shrubs. The No Project (No Build) Alternative would not meet any of the project objectives and would not meet the overall intent of the City's General Plan land use designations for this site.

Aesthetics

The EIR determined that, without implementation of Mitigation Measure 4.1-4(a) and 4.1-4(b), the proposed project could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site. Because the No Project (No Build) Alternative would not introduce any new structures or buildings on the site, the Alternative would not create new sources of light or glare. Thus, impacts related to aesthetics would not occur under the No Project (No Build) Alternative.

Agricultural Resources

The EIR determined that the proposed project would result in a significant and unavoidable impact related to the loss of 52.3 acres Prime farmland, as shown on the maps prepared pursuant to the California Important Farmland Finder of the California Department of Conservation, to non-agricultural uses. The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site. Because the No Project (No Build) Alternative would not introduce any new structures or buildings on the site, the Alternative would not convert on-site Farmland of Statewide Importance to non-agricultural uses. Thus, impacts related to agricultural resources, including the significant and unavoidable impact, would not occur under the No Project (No Build) Alternative.

Air Quality, Greenhouse Gas Emissions, and Energy

The EIR determined that the proposed project would result in a significant and unavoidable impact related to the proposed project's contribution to the cumulative generation of GHG emissions or would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs in combination with future development. The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site. Because the No Project (No Build) Alternative would not include GHG emissions from construction or operations activities, the Alternative would not result in a significant contribution to the cumulative generation of GHG emissions. Thus, impacts related to air quality, GHG emissions, and energy, including the significant and unavoidable impact, would not occur under the No Project (No Build) Alternative.

Biological Resources

Under the No Project (No Build) Alternative, construction activities, including ground disturbance, would not occur on the project site. As such, the Alternative would not have the potential to impact special-status plants, special-status bat species, raptor species such as Swainson's hawk and white-tailed kite, burrowing owl, tricolored blackbird, American badger, and nesting songbirds and raptors protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC). As such, Mitigation Measures 4.4-1 through 4.4-9, as well as Mitigation Measure 4.4-11, 4.4-13(a), 4.4-13(b), and Mitigation Measures 4.4-14(a) through 4.4-14(g) would not be required under the Alternative.

It should be noted that the Yolo County Habitat Conservation Program and Natural Community Conservation Program (Yolo HCP/NCCP) covers the project site. As such, any project including development on-site would be required to pay all applicable development impact fees based on the current rates per acre in support of the Yolo HCP/NCCP. However, under the No Project (No Build) Alternative, the Yolo HCP/NCCP would not receive such funds, which would hinder the HCP's ability to operate as compared to operations with the funds generated by the proposed project. Therefore, the potential impact to the Yolo HCP/NCCP would be slightly greater under the No Project (No Build) Alternative.

Overall, impacts related to biological resources would not occur under the No Project (No Build) Alternative.

Cultural and Tribal Cultural Resources

Because land disturbance would not occur under the No Project (No Build) Alternative, the Alternative would not have the potential to result in impacts to cultural or tribal cultural resources. Mitigation Measures 4.5-2, 4.5-3, and 4.5-4 would not be required under the Alternative. Overall,

impacts related to cultural and tribal cultural resources would not occur under the No Project (No Build) Alternative.

Land Use and Planning/Population and Housing

The No Project (No Build) Alternative assumes that the current conditions of the project site would remain, and the site would not be developed with additional residential or commercial uses. Because the current conditions do not reflect the residential and commercial uses that were anticipated for the site, the Alternative would not be consistent with the development assumptions included in the City's General Plan for the project site. As such, impacts related to land use and planning, as well as to population and housing, would be slightly greater under the No Project (No Build) Alternative.

Noise

The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site, which includes noise that occurs under agricultural operations. Because the No Project (No Build) Alternative would not include the generation of a substantial temporary increase in noise from construction or permanent increase in noise due to operations activities, the Alternative would not result in impacts related to noise. In addition, the Alternative would not generate excessive groundborne vibration or noise levels. Overall, impacts related to noise would not occur under the No Project (No Build) Alternative.

Public Services and Utilities

The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site and would not include the construction of new residential or commercial development. As such, the Alternative would not result in impacts to public services or to utilities.

Transportation

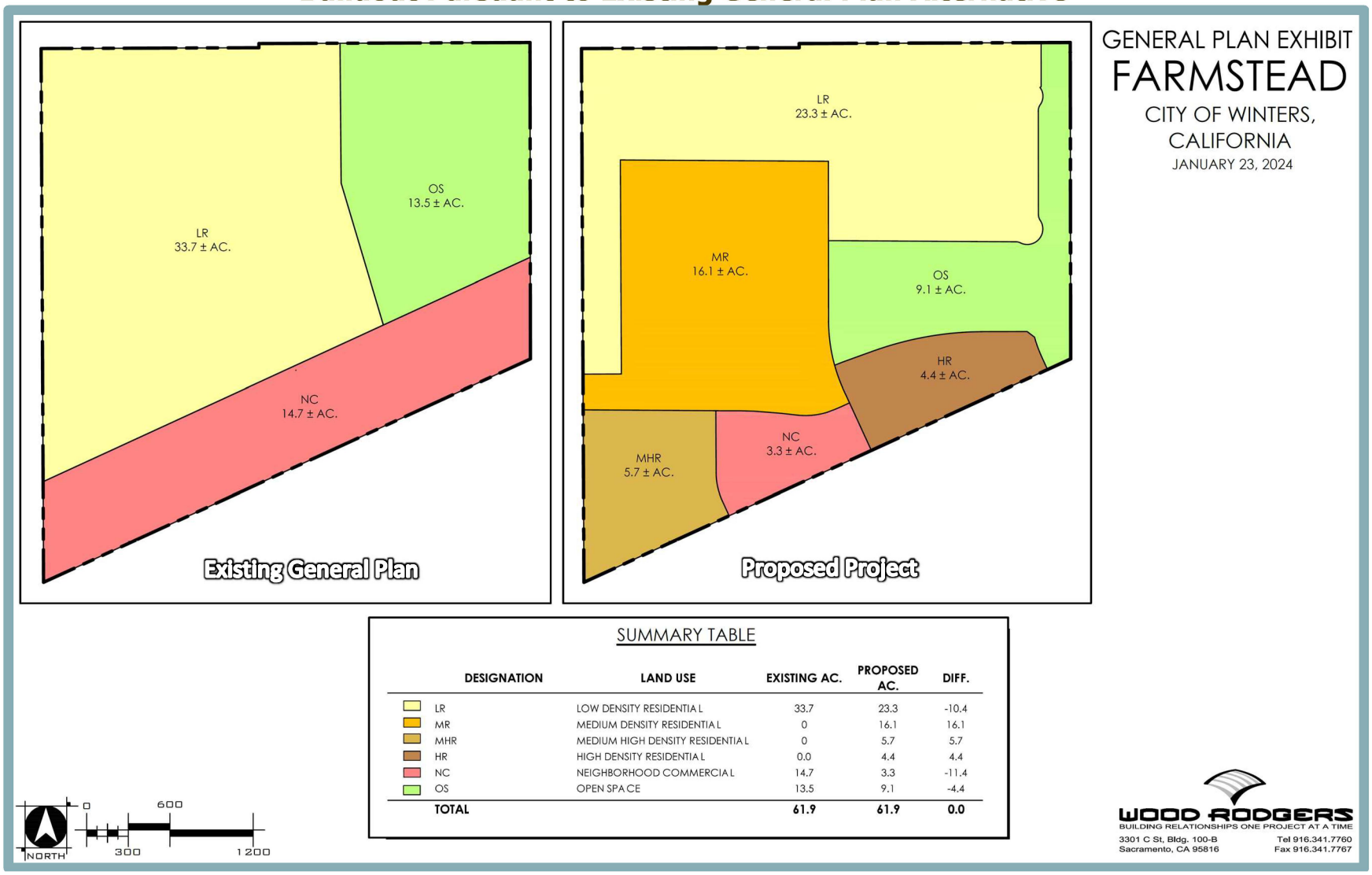
The No Project (No Build) Alternative would not include the development of bicycle and pedestrian facilities throughout the site, and would not include residential and commercial development. As such, the additional VMT associated with on-site development would not occur. Therefore, the mitigation measures related to revisions to construction plans, construction of new bicycle facilities consistent with the applicable standards, and implementation of traffic demand management (TDM) strategies would not be required. Overall, impacts related to transportation, including the significant and unavoidable impact, would not occur under the No Project (No Build) Alternative.

Buildout Pursuant to Existing General Plan Alternative

The Buildout Pursuant to Existing General Plan Alternative would consist of buildout of the project site according to the current General Plan land use designations as shown in Figure 6-2. Under the Buildout Pursuant to Existing General Plan Alternative, the project site would be developed with 33.7 acres of Low-Density Residential (LR), 13.5 acres of Open Space (OS), and 14.7 acres of Neighborhood Commercial (NC) uses.

In comparison to the proposed project, the Buildout Pursuant to Existing General Plan Alternative would result in the development of approximately 246 residential units. As such, the Buildout Pursuant to Existing General Plan Alternative would result in 83 fewer residential units than the proposed project.

Figure 6-2
Buildout Pursuant to Existing General Plan Alternative



In addition, the OS area under the Alternative would be 4.4 acres more than the OS acreage included by the proposed project, and the NC area would be increased by 11.4 acres as compared to the proposed project. Based on a total of 14.7 acres of NC-designated land and a maximum floor area ratio (FAR) of 0.40, the Alternative could include a maximum of 256,133 square feet (sf) of commercial development, which would represent an increase of 219,133 sf as compared to the 37,000 sf included as part of the proposed project. Although the Buildout Pursuant to Existing General Plan Alternative would include a decreased residential density and fewer residential units than the proposed project, the amount of open space would be greater than currently proposed, which could result in a smaller area of disturbance. As such, the Alternative is reasonably assumed to result in an overall lesser disturbance area than the proposed project.

Due to the residential nature of the Buildout Pursuant to Existing General Plan Alternative, and because the design would generally resemble the proposed project, including the development of open space, new roadways, and commercially designated land along SR 128, most project objectives would be fully or partially met. However, because the Alternative would not provide a mix of residential types, Project Objective #1 would not be completely met.

Aesthetics

The Buildout Pursuant to Existing General Plan Alternative would convert the project site, which currently affords views from SR 128 of an agricultural landscape to urban uses. As such, development of the Alternative would still introduce new substantial sources of light and glare to the project site.

Residential sources of light and glare traditionally include, but are not limited to, streetlights within internal street systems, vehicle headlights, interior light spilling through windows, and light reflected off of windows. Because the Alternative would result in the development of approximately 54 fewer residential units and more open space than the proposed project, fewer sources of residential light and glare would be developed on-site. However, the increase in commercial development would represent an increase in associated lighting, such as from external building lamps and lit signs. Therefore, the lighting and glare associated with the Alternative could be more intensive than the proposed project.

It should be noted that the changes in visual character or quality associated with buildout pursuant to the General Plan have already been evaluated by the City. Various General Plan policies have been established to maintain the visual and scenic resources of the City. For example, pursuant to General Plan Policy VIII.D.7, lighting would be "…designed, installed, and maintained to minimize excess light spillage, unnecessary brightness and glare, and degradation of night sky clarity." The Alternative would be subject to the foregoing and all other applicable sections of the Winters Design Guidelines and General Plan policies related to light pollution, including, but not limited to, design features that limit impacts of lighting on adjacent buildings. However, because the types of lighting and the specific locations are not known for the Buildout Pursuant to Existing General Plan Alternative, Mitigation Measure 4.1-4(a) and 4.1-4(b) would still be required.

Overall, because the Alternative would include more commercial development than the proposed project, impacts related to aesthetics would be greater under the Buildout Pursuant to Existing General Plan Alternative.

Agricultural Resources

The EIR determined that the proposed project could result in a significant impact related to converting approximately 52.3 acres of Prime Farmland to non-agricultural use. Similar to the proposed project, the Buildout Pursuant to Existing General Plan Alternative would consist of the development of the majority of the project site with residential and commercial uses. As such, the Alternative would convert on-site Prime Farmland to non-agricultural use. Thus, implementation of Mitigation Measure 4.2-1 would still be required under the Alternative. Overall, impacts related to agricultural resources would be similar under the Buildout Pursuant to Existing General Plan Alternative as compared to the proposed project, including the significant and unavoidable impact related to the conversion of Prime Farmland.

Air Quality, Greenhouse Gas Emissions, and Energy

The EIR determined that the proposed project would result in a significant and unavoidable impact related to the proposed project's contribution to the cumulative generation of GHG emissions or would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs in combination with future development. Similar to the proposed project, the Buildout Pursuant to Existing General Plan Alternative would include the development of the majority of the project site with residential uses. The proposed development would be expected to exhibit similar VMT characteristics as the existing residential development within the City, which SACOG estimates to exceed the applicable threshold. Therefore, Mitigation Measures 4.3-7(a) and 4.3-7(b) would still be required. Overall, impacts related to cumulative GHG emissions would be similar under the Buildout Pursuant to Existing General Plan Alternative as compared to the proposed project, including the significant and unavoidable impact.

Biological Resources

Similar to the proposed project, the Buildout Pursuant to Existing General Plan Alternative would include ground-disturbing activities on the project site and, thus, would have the potential to impact special-status plants, special-status bat species, raptor species such as Swainson's hawk and white-tailed kite, burrowing owl, tricolored blackbird, American badger, and nesting songbirds and raptors protected under the MBTA and CFGC. In addition, the Alternative could conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan unless compliance with all applicable Yolo HCP/NCCP Avoidance and Minimization Measures (AMMs) occurs. As such, Mitigation Measures 4.4-1 through 4.4-9, as well as Mitigation Measure 4.4-11, 4.4-13(a), 4.4-13(b), and Mitigation Measures 4.4-14(a) through 4.4-14(g) would still be required under the Alternative.

Overall, impacts related to Biological Resources would be similar under the Buildout Pursuant to Existing General Plan Alternative compared to the proposed project.

Cultural and Tribal Cultural Resources

While the Buildout Pursuant to Existing General Plan Alternative would result in the development of approximately 83 fewer residential units than the proposed project, the Alternative would be anticipated to result in a slightly less disturbance area as compared to the proposed project. However, due to the potential for previously unrecorded cultural and tribal cultural resources, the Buildout Pursuant to Existing General Plan Alternative could similarly result a substantial adverse change in the significance of a unique archaeological resource and/or tribal cultural resource, disturb human remains, and directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature. Consequently, Mitigation Measures 4.5-2 through 4.5-4 would

still be required, and impacts related to cultural and tribal cultural resources would be similar under the Buildout Pursuant to Existing General Plan Alternative compared to the proposed project.

Land Use and Planning/Population and Housing

Because the Buildout Pursuant to Existing General Plan Alternative would result in the development of residential and commercial uses consistent with existing General Plan land use designations, such development would be consistent with the General Plan and the associated policies and regulations. In addition, because the Alternative would not require a General Plan Amendment or Rezone, any population growth associated with the development would not be considered unplanned. As such, impacts related to land use and planning, as well as population and housing, would be fewer under the Buildout Pursuant to Existing General Plan Alternative compared to the proposed project.

Noise

The Buildout Pursuant to Existing General Plan Alternative would result in the development of residential and commercial uses consistent with existing General Plan land use designations. Because the Alternative would include the development of approximately 83 fewer residential units than the proposed project, construction activities (and the associated temporary increase in noise) would be finished quicker. In addition, ambient noise levels during operations would be reduced due to a reduction in anticipated residents. However, the Alternative would also include up to 219,133 sf more commercial development than the proposed project. The increase in commercial uses is anticipated to result in an increase in traffic and, thus, an increase in traffic-related noise. In addition, construction of the commercial uses would take longer than the proposed project, and operational noise, such as delivery trucks and unloading docks, would be increased as compared to the proposed project. Therefore, impacts related to noise would be greater under the Buildout Pursuant to Existing General Plan Alternative.

Public Services and Utilities

As discussed throughout the chapter, the Buildout Pursuant to Existing General Plan Alternative would result in the development of residential and commercial uses consistent with existing General Plan. Because the Alternative would include the development of approximately 83 fewer residential units than the proposed project, the physical impact on local public service providers (including police and fire departments, schools, parks, and other public facilities) would be slightly reduced as compared to the proposed project. In addition, the reduced residential units would include a reduction in utility connections and service demand as compared to the proposed project. Finally, because buildout of the Alternative would be consistent with the General Plan, development would comply with all applicable regulations. Overall, impacts related to public services and utilities would be slightly reduced under the Buildout Pursuant to Existing General Plan Alternative compared to the proposed project.

Transportation

Similar to the proposed project, the Buildout Pursuant to Existing General Plan Alternative would include development of additional bicycle and pedestrian facilities throughout the site. However, because consistency with the applicable policies contained in the City of Winters General Plan and the Bikeway System Master Plan cannot be guaranteed, Mitigation Measure 4.9-1(a) and 4.9-1(b) would still be required under the Alternative.

In addition, as previously discussed, the Buildout Pursuant to Existing General Plan Alternative would include the development of most of the site with residential uses. The proposed development would be expected to exhibit similar VMT characteristics as the existing residential development within the City, which SACOG estimates to have a VMT per capita of 30.69. Thus, the estimated VMT for the Alternative would likely still exceed the applicable threshold of 15 percent below the existing regional VMT per capita. As such, Mitigation Measure 4.9-2 would still be required. Because the efficacy of the required TDM strategies cannot be known, and thus, cannot be guaranteed to sufficiently reduce VMT to levels below the thresholds of significance, the impact would remain significant and unavoidable.

Overall, development of the Buildout Pursuant to Existing General Plan Alternative would result in similar impacts related to transportation compared to the proposed project.

Agricultural Preservation Alternative

The Agricultural Preservation Development Alternative would include the same number of total units on the area currently designated as residential (approximately 34 acres) as shown in Figure 6-3. In order to develop the same number of units, the residential portion of the Alternative would need an increased density and require a High Density Residential (HR) designation. The amount of on-site commercial development along the SR 128 frontage would be the same as the existing land use designation (14.7 acres), which would represent an increase of 219,133 sf as compared to the proposed project for a total of 256,133 sf. The remaining acreage would be developed as open space, including a portion of the proposed Lot G drainage channel.

The Agricultural Preservation Alternative would require a General Plan Amendment and Rezone to change the land use designations of the project site to HR, allowing for 10.1 to 20 du/ac. As such, the southern portion of the project site could be developed at a maximum density of 20 du/ac. Table 6-1 provides a summary of the land uses that would be developed under the Agricultural Preservation as compared to the proposed project.

Table 6-1
Land Use Comparison – Agricultural Preservation Alternative

Land Use	Existing General Plan (acres)	Proposed Project (acres)	Alternative (acres)
High Density Residential	0	4.4	16.5
Medium High Density Residential	0	5.7	0
Medium Density Residential	0	16.1	0
Low Density Residential	33.7	23.3	0
Neighborhood Commercial	14.7	3.3	14.7
Open Space	13.5	9.1	2.8
Total Acreage	**61.9**	**61.9**	**34.0**
Total Dwelling Units	**246 (maximum)**	**329 (proposed)**	**330 (maximum)**

As shown in the table, the overall disturbance area of the project site would be reduced in order to preserve a portion of the agricultural land on-site. Similar to the proposed project, the Agricultural Preservation Alternative would include various off-site improvements required under the proposed project.

Figure 6-3
Agricultural Preservation Alternative



Such improvements would be located to the east and west of the proposed East Main Street and include a 12-foot-wide right-turn lane, an attached six-foot-wide bicycle lane, two new ditches, and an eight-foot-wide Class I multi-use pathway and landscaping. It should be noted that the alternative site would extend northward to accommodate a roadway to the Walnut 10 parcel.

Due to the residential and commercial nature of the Agricultural Preservation Alternative, some project objectives would be fully or partially met. However, because the Alternative would not include a mix of housing choices at varying densities, Objectives #2 and #3 would not be met. In addition, because the Alternative would exclude a portion of the project site, development could arguably achieve the opposite of Objective #6, which aims to develop an "…efficient, orderly, and logical development and discourage[s]… piecemeal development and sprawl."

Aesthetics

Similar to the proposed project, the Agricultural Preservation Alternative would include development of the project site with residential and commercial uses. The Alternative development would be required to comply with the same local standards related to landscaping, design, and public views. As such, the Alternative would not have a substantial adverse effect on a scenic vista, damage scenic resources, or conflict with applicable regulations governing scenic quality. However, because the project site affords views from SR 128 of an agricultural landscape, development of the Alternative would still introduce new substantial sources of light and glare to the project site. Such sources would include, but not be limited to, residential sources such as streetlights within internal street systems, vehicle headlights, interior light spilling through windows, and light reflected off of windows. Therefore, Mitigation Measures 4.1-4(a) and 4.1-4(b) would still be required to reduce the identified impact to a less-than-significant level. In addition, the commercial development under the Alternative would be increased as compared to the proposed project, thereby increasing the amount of associated lighting, such as from external building lamps and lit signs.

Overall, because the on-site commercial development would be greater than the proposed project, impacts related to Aesthetics would be greater under the Agricultural Preservation Alternative as compared to the proposed project.

Agricultural Resources

The EIR determined that the proposed project could result in a significant impact related to converting approximately 52.3 acres of Prime Farmland to non-agricultural use out of the 61.9-acre project site. The Agricultural Preservation Alternative would consist of the development of an approximately 34-acre portion of the same project site as the proposed project with largely residential and commercial uses. As such, the Alternative would be anticipated to convert less Prime Farmland to non-agricultural uses as compared to the proposed project. Overall, the significant and unavoidable impact related to agricultural resources would be reduced as compared to the proposed project, but would still remain significant and unavoidable.

Air Quality, Greenhouse Gas Emissions, and Energy

The EIR determined that the proposed project would result in a significant and unavoidable impact related to the proposed project's contribution to the cumulative generation of GHG emissions or would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs in combination with future development. However, the Agricultural Preservation Alternative would incorporate residential units at an increased density, which would result in a reduction in VMT as compared to the proposed project. Because the VMT would be

reduced, GHG emissions would also be reduced. As discussed further in the Transportation subsection below, VMT would not likely be reduced to a less-than-significant level. As a result, the Alternative would still conflict with Sacramento Metropolitan Air Quality Management District (SMAQMD) BMP-3, and Mitigation Measures 4.3-7(a) and 4.3-7(b) would still be required. It should be noted that the impact would remain significant and unavoidable. Overall, because GHG emissions would be slightly reduced as compared to the proposed project, development of the Alternative would result in lesser impacts related to GHG emissions.

Biological Resources

Similar to the proposed project, the Agricultural Preservation Alternative would include ground-disturbing activities on the project site and, thus, would have the potential to impact special-status plants, special-status bat species, raptor species such as Swainson's hawk and white-tailed kite, burrowing owl, tricolored blackbird, American badger, and nesting songbirds and raptors protected under the MBTA and CFGC. In addition, the Alternative would have the potential to conflict with the Yolo HCP/NCCP because compliance with all applicable AMMs cannot be guaranteed. However, because the Alternative would include a reduced disturbance area as the proposed project, potential impacts to the aforementioned special-status species would be less than the proposed project. Mitigation Measures 4.4-1 through 4.4-9, as well as Mitigation Measure 4.4-11, 4.4-13(a), 4.4-13(b), and Mitigation Measures 4.4-14(a) through 4.4-14(g) would still be required under the Alternative. Overall, impacts related to biological resources would be fewer under the Alternative as compared to the proposed project.

Cultural and Tribal Cultural Resources

The Agricultural Preservation Alternative would include a smaller area of disturbance as the proposed project. As such, the potential to result in disturbance or destruction of historical resources, archaeological resources, human remains, and/or unique paleontological resources or sites would be reduced under the Alternative. However, because the potential to disturb such resources cannot be completely dismissed, Mitigation Measures 4.5-2 through 4.5-4 would still be required under the Alternative. Overall, impacts related to Cultural Resources would be fewer under the Agricultural Preservation Alternative compared to the proposed project.

Land Use and Planning/Population and Housing

The Agricultural Preservation Alternative would conflict with the General Plan, and thus, would require a General Plan Amendment and Rezone to reflect the Alternative land uses. However, the proposed project similarly requires a General Plan Amendment and Rezone. Because the Agricultural Preservation Alternative would result in the development of residential and commercial uses, such development would be generally consistent with the uses anticipated for the site by the General Plan and would comply with the applicable policies and regulations established therein. Approval of the General Plan Amendment and Rezone are discretionary actions subject to approval by the City Council. Should the City Council approve the requested entitlements, the Alternative development would be rendered consistent with the City's General Plan and Municipal Code. In addition, because the project site was planned for residential and commercial development, any population growth associated with the Alternative would also be considered generally planned for by the City. Overall, impacts related to land use and planning, as well as population and housing, would be similar under the Agricultural Preservation Alternative as compared to the proposed project.

Noise

The Agricultural Preservation Alternative would result in the development of residential and commercial uses generally consistent with what the City's General Plan anticipated for the project site. Because the Alternative could accommodate the same number of residential units as the proposed project, construction activities and project operations would be similar to the proposed project. However, the Alternative would also include up to 219,133 sf more commercial development than the proposed project. Therefore, construction of the commercial uses would take longer than the proposed project. In addition, operational noise, such as delivery trucks and unloading docks, would be increased as compared to the proposed project. Overall, impacts related to noise would be greater under the Agricultural Preservation Alternative compared to the proposed project.

Public Services and Utilities

The Agricultural Preservation Alternative would result in the development of residential and commercial uses similar to the uses anticipated by the General Plan. Because the Alternative could accommodate the same number of residential units as the proposed project, the physical impact on local public service providers (including police and fire departments, schools, parks, and other public facilities) would be similar as compared to the proposed project. In addition, the number of utility connections and demand for utility service would be similar as compared to the proposed project. Finally, because buildout of the Alternative would be required to be consistent with all applicable City standards and policies, development would comply with all applicable regulations, including local management and reduction regulations related to solid waste. Overall, impacts related to public services and utilities would be similar under the Agricultural Preservation Alternative compared to the proposed project.

Transportation

Similar to the proposed project, the Agricultural Preservation Alternative would include development of additional bicycle and pedestrian facilities throughout the site. However, because consistency with the applicable policies contained in the City of Winters General Plan and the Bikeway System Master Plan cannot be guaranteed, Mitigation Measure 4.9-1(a) and 4.9-1(b) would still be required under the Alternative.

In addition, as previously discussed, the Agricultural Preservation Alternative would include the development of most of the site with residential uses. The Alternative would incorporate residential units at an increased density, which is a California Air Pollution Control Officers Association (CAPCOA) VMT-reduction strategy. Therefore, the Agricultural Preservation Alternative would result in a reduction in VMT as compared to the proposed project. SACOG estimates existing development within the City to have a VMT per capita of 30.69, which is 47 percent above the applicable threshold. The estimated VMT for the Alternative would likely still exceed the applicable threshold, and Mitigation Measure 4.9-2 would still be required to reduce the significant and unavoidable impact to the extent feasible. However, because the VMT would be reduced due to the increase in density, development of the Buildout Pursuant to Existing General Plan Alternative would result in slightly lesser impacts related to transportation compared to the proposed project.

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. The environmentally superior alternative is generally the alternative that would be expected to generate the least amount of significant impacts.

Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets the goals or needs of the City. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." In this case, the No Project (No Build) Alternative would be considered the environmentally superior alternative, because the project site is assumed to remain in its current condition under the alternative. Consequently, many of the impacts resulting from the proposed project would not occur under the Alternative, as shown in Table 6-2 below.

The No Project (No Build) Alternative would not meet any of the project objectives and would not meet the City's anticipated buildout of the project site. Because the Buildout Pursuant to Existing General Plan Alternative and the Agricultural Preservation Alternative would include the development of a mix of residential and commercial uses, most project objectives would be fully or partially met by each Alternative. However, because all of the Alternatives would not include the development of a mix of housing choices, Project Objective #2 and #3 would not be met by either of the foregoing Alternatives.

As discussed throughout this chapter and shown in Table 6-2, the Buildout Pursuant to Existing General Plan Alternative would result in similar impacts as the proposed project related to five of the nine issue areas for which project impacts were identified, fewer impacts related to two issue areas, and greater impacts to two issue areas. The Agricultural Preservation Alternative would result in fewer impacts than the proposed project related to five issue areas for which project impacts were identified, greater impacts than the proposed project related to two issue areas, similar impacts related to the remaining two issue areas. While the significant and unavoidable impacts related to agricultural resources, GHG emissions, and VMT identified for the proposed project would still occur under the two Alternatives, the significant and unavoidable impacts related to GHG emissions and VMT would be slightly reduced under the Agricultural Preservation Alternative.

Based on the above, the Agricultural Preservation Alternative would result in fewer impacts than the proposed project related to each issue area for which project impacts were identified, whereas the other alternatives considered in this chapter would result in greater or similar impacts for some issue areas. Therefore, the Agricultural Preservation Alternative would be considered the Environmentally Superior Alternative. However, as discussed above, the significant and unavoidable impacts that were identified for the proposed project would still occur under the Agricultural Preservation Alternative, although the impacts related to GHG emissions and VMT would be slightly reduced. As such, the number of significant and unavoidable impacts overall would be the same under the Agricultural Preservation Alternative and the proposed project.

Table 6-2
Comparison of Environmental Impacts for Project Alternatives

Resource Area	Proposed Project	No Project (No Build) Alternative	Buildout Pursuant to Existing General Plan Alternative	Agricultural Preservation Alternative
Aesthetics	Less-Than-Significant with Mitigation	None	Greater	Greater
Agricultural Resources	Significant and Unavoidable	None	Similar*	Fewer*
Air Quality, Greenhouse Gas Emissions, and Energy	Significant and Unavoidable	None	Similar*	Fewer*
Biological Resources	Less-Than-Significant with Mitigation	Greater	Similar	Fewer
Cultural and Tribal Cultural Resources	Less-Than-Significant with Mitigation	None	Similar	Fewer
Land Use and Planning / Population and Housing	Less Than Significant	Greater	Fewer	Similar
Noise	Less Than Significant	None	Greater	Greater
Public Services and Utilities	Less Than Significant	None	Fewer	Similar
Transportation	Significant and Unavoidable	None	Similar*	Fewer*
	Total Greater:	**2**	**2**	**2**
	Total Fewer:	**7**	**2**	**5**
	Total Similar:	**0**	**5**	**2**

Note: No Impact = "None;" Greater than the Proposed Project = "Greater," Less than Proposed Project = "Fewer;" and Similar to Proposed Project = "Similar"

* Significant and Unavoidable impact(s) determined for the proposed project would still be expected to occur under the Alternative.

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Appendix A

City of Winters
Community Development Department
318 First Street Winters, CA 95694
530-795-2101 (Planning)

DATE: November 18, 2021

TO: Interested Persons

FROM: Kirk Skierski, Senior Planner

SUBJECT: Notice of Preparation (NOP) to prepare an Environmental Impact Report for the Farmstead Subdivision Project

PUBLIC REVIEW PERIOD: November 18, 2021 through December 17, 2021

The City of Winters is the lead agency for the preparation of an Environmental Impact Report (EIR) for the Farmstead Subdivision Project (proposed project). The EIR is being prepared in compliance with the California Environmental Quality Act (CEQA).

CEQA Section 15082 states that once a decision is made to prepare an EIR, the lead agency (the City of Winters) must prepare a NOP to inform all responsible agencies that an EIR will be prepared. The purpose of the NOP is to provide sufficient information describing the proposed project and the potential environmental effects in order to enable responsible agencies to make a meaningful response regarding the scope and content of the information that should be included in the EIR. Comments are also being solicited from the public.

Comment Period: Comments can be sent anytime during the 30-day NOP comment period. The comment period begins November 18, 2021, and ends December 17, 2021, at 5:00 PM. All comments must be directed to the following contact/address:

City of Winters Community Development Department
ATTN: Kirk Skierski, Senior Planner
318 First Street
Winters, CA 95694
(530) 795-4910
Kirk.Skierski@cityofwinters.org

Scoping Meeting: A public scoping meeting will be held by the City to inform interested parties about the proposed project, and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR. The scoping meeting will be Zoom meeting held on November 30, 2021, at 2:30 PM.

Join Zoom Meeting
https://us02web.zoom.us/j/81911380089?pwd=U1A1RjR6Z0E4dXlrYnA1bUFCU1NLQT09

Meeting ID: 819 1138 0089
Passcode: 066569
One tap mobile
+16699006833,,81911380089# US (San Jose)
+13462487799,,81911380089# US (Houston)

The NOP consists of a Project Description and an Environmental Effects section that will describe the anticipated chapters and alternatives to be included in the EIR.

PROJECT DESCRIPTION

The following sections will discuss integrant parts of the Project Description such as Project Location, Project Setting, Surrounding Land Uses, Project Components, and Entitlements. Each section will go into brief detail regarding the proposed project.

Project Location

The project site is located within the eastern portion of the City of Winters, west of Interstate (I) 505 (see Figure 1). The project site, identified by Yolo County Assessor's Parcel Number (APN) 038-050-018, is located northwest of the intersection of State Route (SR) 128/Timber Crest Road, and immediately north of the intersection of SR 128/East Main Street (see Figure 2). It is noted that the portion of SR 128 adjacent to the project site is also designated as East Grant Avenue.

Project Setting

The project site consists of 61.9 acres of undeveloped land with a topography that is generally flat. The site has been used for farming for many decades, with the ground periodically tilled for row crops, hay, or other dry farming purposes. Vegetation within the project site consists primarily of ruderal non-native species, including alfalfa, ripgut brome, black mustard, perennial rye grass, and slender wild oat. In addition, the perimeter of the property contains numerous trees and shrubs, including valley oak, paradox walnut, English walnut, olive, and common fig along the southern border; volunteer domestic almond trees along the northern, eastern, and western boundaries; and two large coast redwoods within a degraded gravel driveway area generally located immediately north of the intersection of SR 128 and East Main Street.

The existing General Plan land use designations for the site are Open Space (OS), Low Density Residential (LR), and Neighborhood Commercial (NC). The site's current zoning districts consist of Open Space (O-S), Single Family Residential 7,000 Square-Foot Average Minimum (R-1), and Neighborhood Commercial (C-1).

Surrounding Land Uses

Existing surrounding land uses include unincorporated agricultural land to the north; undeveloped grassland and a single-family residence zoned for Highway Service Commercial (C-H) uses to the east; undeveloped grassland zoned for Neighborhood Commercial (C-1) uses and single-family residential neighborhood located further to the south; and a single-family residential neighborhood and undeveloped land to the west zoned Single-Family Residential 7,000 Square-Foot Average Minimum (R-1) and Single-Family Residential 6.000 Square-Foot Average Minimum (R-2). It should be noted that the undeveloped parcel to the west of the project site zoned R-1 is the Walnut Lane 10 54-lot subdivision, which was recently approved by the City.

Project Components

The proposed project would include subdivision of a portion of the project site to develop 200 single-family residential units on 36.7 gross acres, 84 multi-family residential units on 4.2 gross acres, 135,000 square feet (sf) of commercial uses across seven lots totaling 12.4 gross acres, 3.2 gross acres of open space and Drainage Channel, and 5.4 gross acres of parkland[1] (see Figure 3). In addition, the project would include several roadway improvements. The proposed project would require approval of the following entitlements: General Plan Amendment (GPA), Rezone, Tentative Subdivision Map (TSM), Affordable Housing Plan, and a Development Agreement (DA).

[1] Gross acreage is generally defined as the entire parcel and includes areas comprised by private drives, public roads, and landscape lots. Conversely, net acreage refers to the developable acreage of a parcel.

Figure 1
Regional Location Map



Figure 2
Project Site Boundaries



General Plan Amendment

The City of Winters' General Plan designates the project site as Low Density Residential (LR), Neighborhood Commercial Space (NC), and Open Space (OS). The proposed project includes a GPA to re-configure the project site's existing land use designations (see Figure 3). The GPA would include a new 4.2-gross acre High Density Residential (HR) land use designation in the southwest corner of the site. The property's OS land use designation area would be reconfigured and reduced. The GPA would also reconfigure and reduce the site's NC land use designation and expand the LR designation. Table 1 shows the acreages for the property's existing and proposed General Plan land use designations.

Table 1
Farmstead Subdivision General Plan Amendment

Land Use Designation	Existing Acreage	Proposed Acreage
Low Density Residential	33.7	37.6
High Density Residential	0	4.2
Neighborhood Commercial	14.7	12.4
Open Space	13.5	7.7
Total	**61.9**	**61.9**

Rezone

The proposed Rezone would reconfigure the project site's zoning designations to those shown in Figure 4. The southwest corner of the project site would feature an approximately 4.2-acre High Density Multi-Family Residential (R-4) zone. The property's C-1 and Open Space (O-S) zoning districts would be reconfigured and reduced to 12.4 gross acres and 7.7 gross acres, respectively. A new 15-acre Single Family Residential 6,000 Square-Foot Average Minimum (R-2) zone would be established in the western portion of the site. The existing R-1 zone would be reconfigured and reduced from 33.7 gross acres to 22.6 gross acres. Lastly, the Rezone would add a Planned Development (PD) overlay zone to the site's residential zoning districts, which would allow for a degree of flexibility from the residential development standards, as discussed in Chapter 17.48 of the City's Municipal Code. Table 2 shows the acreages for the property's existing and proposed zoning.

Table 2
Farmstead Subdivision Rezone

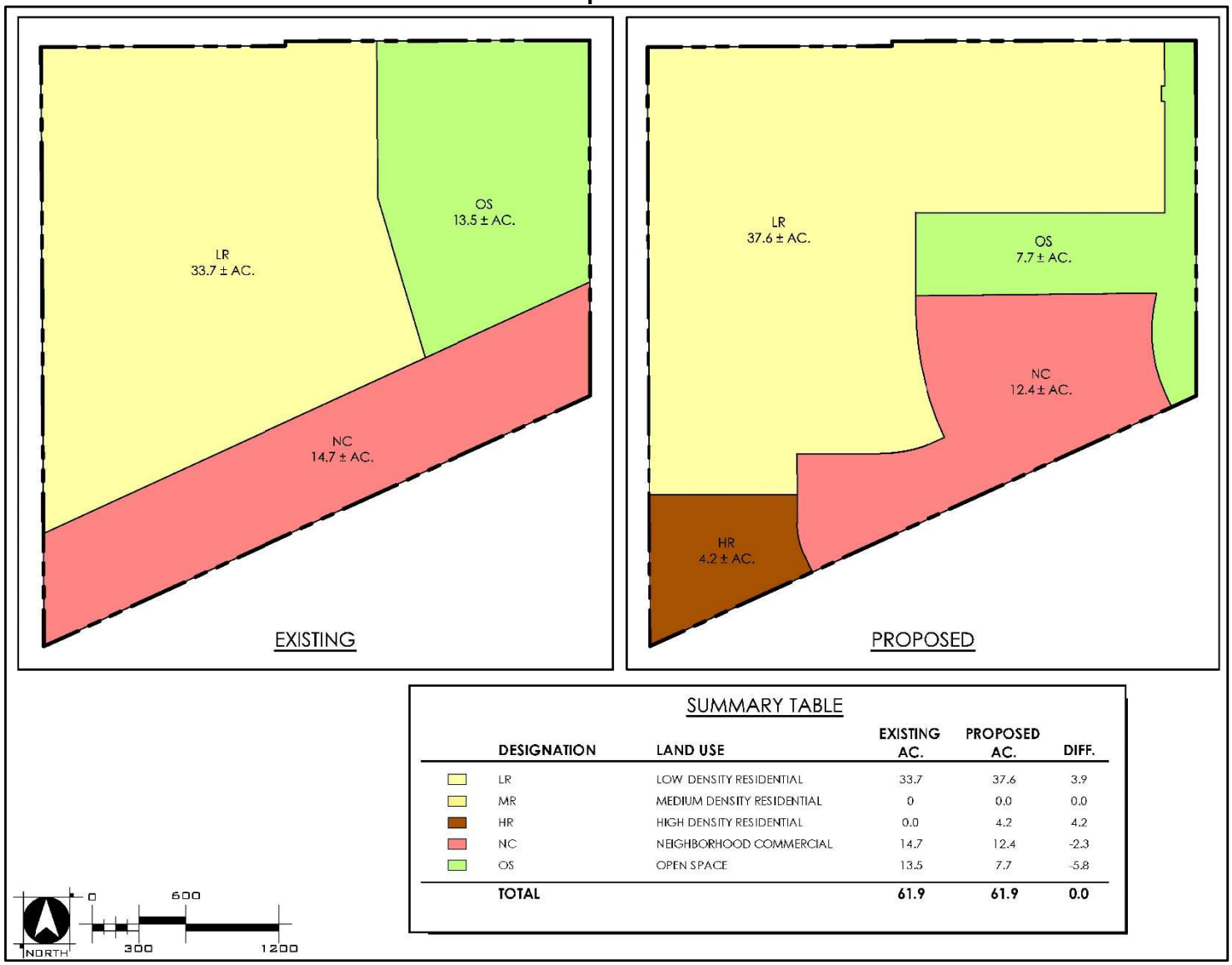
Zoning District	Existing Acreage	Proposed Acreage
Single Family Residential (6,000 sf min)	33.7	22.6
Single Family Residential (5,000 sf min)	0	15
High Density Multi-Family Residential	0	4.2
Neighborhood Commercial	14.7	12.4
Open Space	13.5	7.7
Total	**61.9**	**61.9**

Tentative Subdivision Map

As established by Section 16.01.010 of the City's Municipal Code, notwithstanding the exceptions provided therein, a TSM and Final Map are required for all divisions of land where the Community Development Director has determined that such land would be divided into five or more parcels. Therefore, the proposed project would be subject to all applicable requirements set forth in Chapter 16.01 of the Municipal Code.

As shown in Figure 5, the TSM illustrates the details of the project's proposed lotting pattern and street system, sidewalks and trails, and other features of the project.

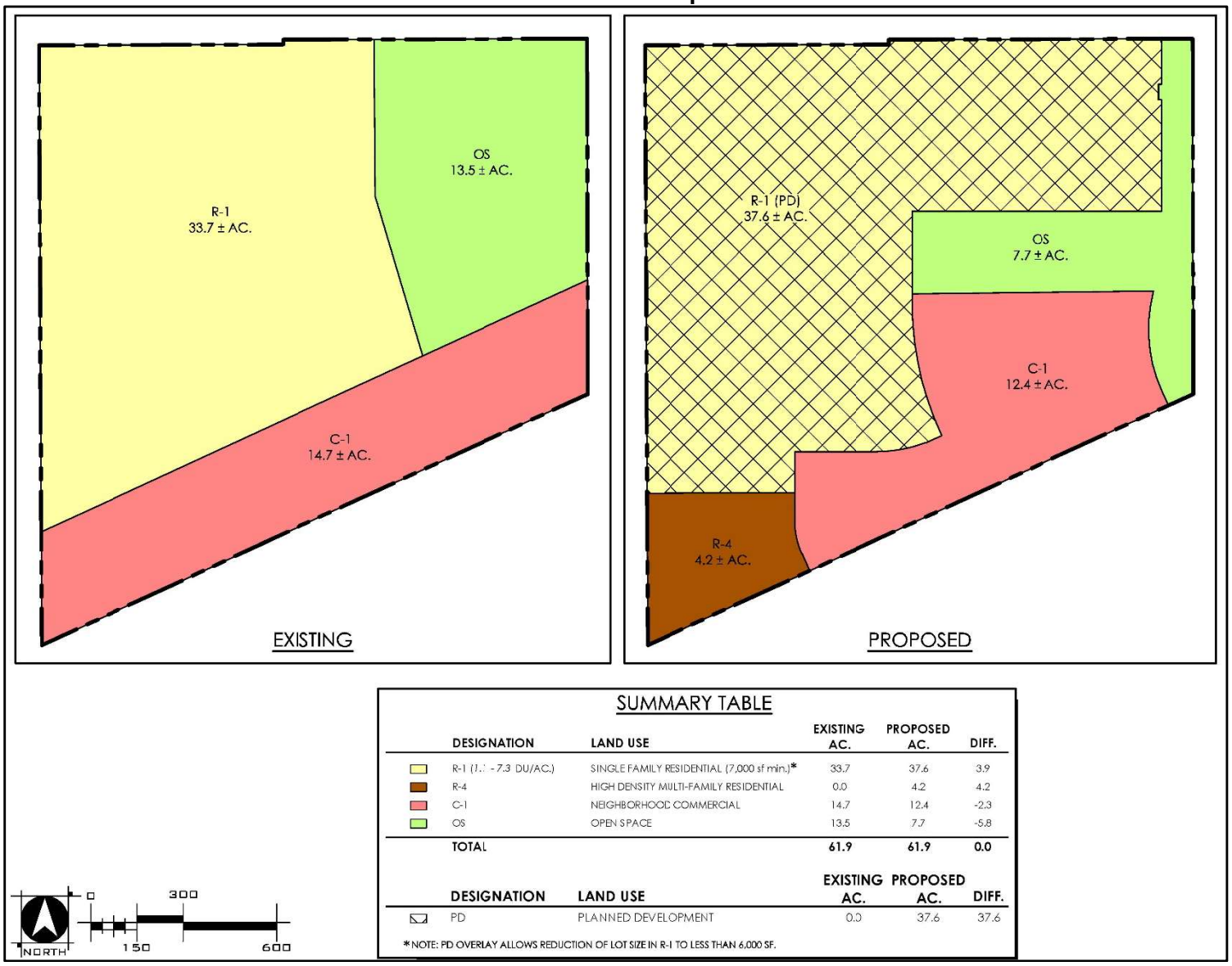
Figure 3
Farmstead Subdivision Proposed General Plan Amendment



SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
LR	LOW DENSITY RESIDENTIAL	33.7	37.6	3.9
MR	MEDIUM DENSITY RESIDENTIAL	0	0.0	0.0
HR	HIGH DENSITY RESIDENTIAL	0.0	4.2	4.2
NC	NEIGHBORHOOD COMMERCIAL	14.7	12.4	-2.3
OS	OPEN SPACE	13.5	7.7	-5.8
TOTAL		**61.9**	**61.9**	**0.0**

Figure 4
Farmstead Subdivision Proposed Rezone



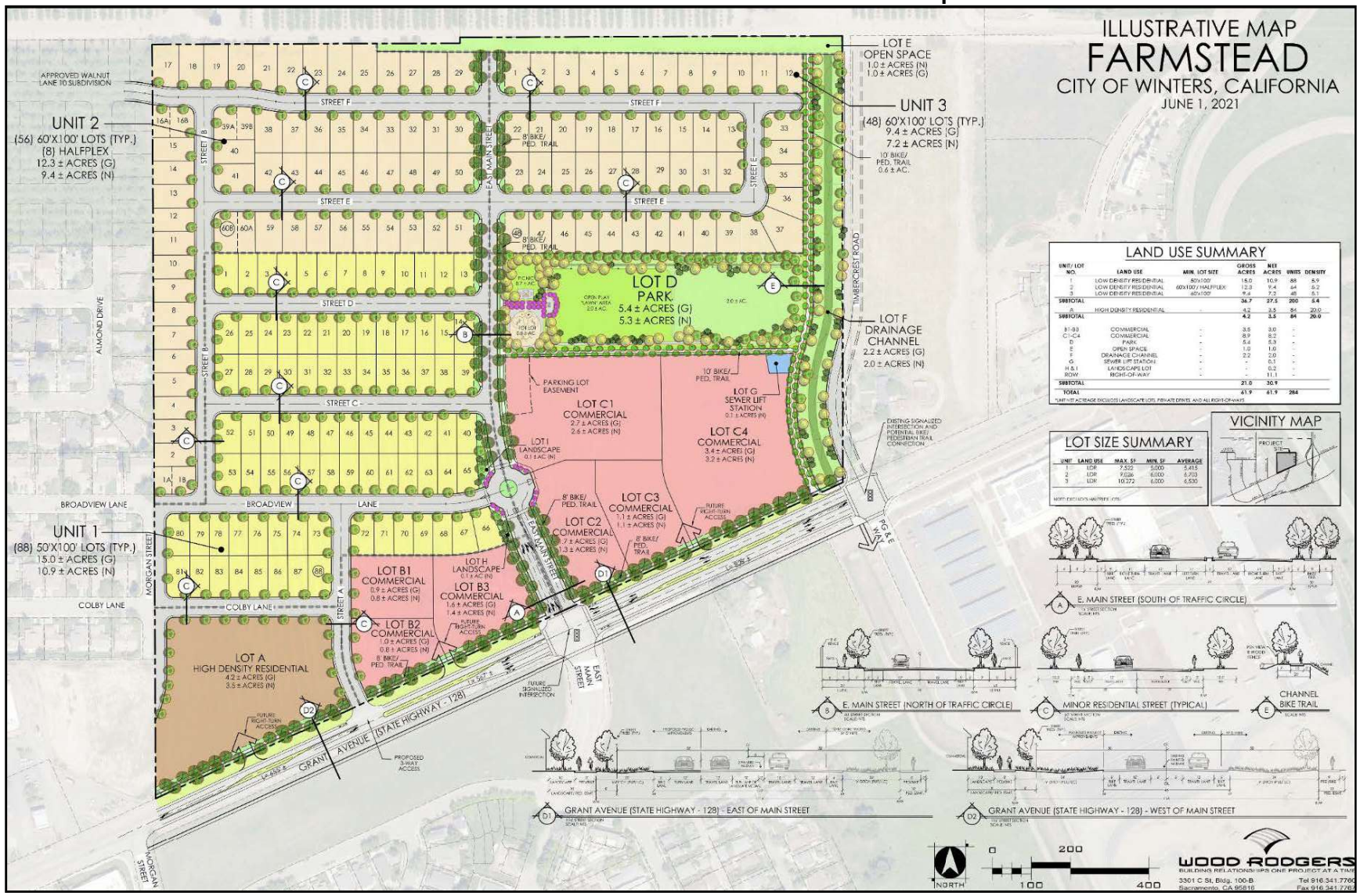
SUMMARY TABLE

	DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
	R-1 (1.: - 7.3 DU/AC.)	SINGLE FAMILY RESIDENTIAL (7,000 sf min.)*	33.7	37.6	3.9
	R-4	HIGH DENSITY MULTI-FAMILY RESIDENTIAL	0.0	4.2	4.2
	C-1	NEIGHBORHOOD COMMERCIAL	14.7	12.4	-2.3
	OS	OPEN SPACE	13.5	7.7	-5.8
	TOTAL		**61.9**	**61.9**	**0.0**

	DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
	PD	PLANNED DEVELOPMENT	0.0	37.6	37.6

*NOTE: PD OVERLAY ALLOWS REDUCTION OF LOT SIZE IN R-1 TO LESS THAN 6,000 SF.

Figure 5
Farmstead Subdivision Tentative Subdivision Map



In addition, the TSM shows the proposed locations of the 84-unit HR site and the 200 single-family residential lots, lot dimensions, street sections, and other details.

As depicted in Figure 5, the proposed project would include 36.7 gross acres of single-family residential uses, 4.2 gross acres of multi-family residential uses, 12.4 gross acres for commercial uses, and approximately 5.4 gross acres of parkland. The park site would include approximately 0.7 acres of picnic areas, a 0.6-acre tot lot, and four acres of open play lawn area. The easterly portion of the open play lawn area would also serve as a water quality and detention basin for the proposed project, which would be sized to capture post-development flows within the project site.

Site Access and Circulation
The proposed project would include several roadway and frontage improvements. Primary site access would be provided by way of two new roads, which would be extended into the project site from SR 128. East Main Street, which currently ends at an intersection with SR 128, would be extended northward into the project site. The SR 128/East Main Street intersection would include installation of a new signal.

Internal circulation would be provided by way of extensions to existing roadways as well as construction of new roads. Broadview Lane and Colby Lane, existing neighborhood roads that are currently stubbed at the project site's western property line, would be extended eastward into the project site and intersect with Street A. Internal circulation would also be provided through the construction of new roadways Streets B through F. Street F, which would be implemented generally in an east-to-west direction in the northern portion of the project site, would be stubbed at the project site's western property line for future connections with the Walnut Lane 10 subdivision.

Utilities and Service Systems
The proposed project would include on-site water, sanitary sewer, and stormwater improvements, which would connect to the existing infrastructure in the project vicinity. From the existing water main located in SR 128, a 12-inch water main would be extended into the project site within the East Main Street right-of-way (ROW), which would eventually connect to a new 12-inch water line located in Street F. Similarly, the proposed project would include implementation of new sewer lines within the project site's interior roadways. Wastewater would be pumped from a new sewer lift station, proposed on Lot G, to the existing eight-inch sewer main located within the SR 128 ROW. As previously discussed, the easterly portion of the open play lawn area would serve as a water quality and detention basin for the proposed project, which would be sized to capture post-development flows within the project site. Lastly, existing natural gas, electricity, and telecommunications infrastructure is located along SR 128. From the point of connection to the existing facilities, new natural gas, electricity, and telecommunications infrastructure would be extended into the project site within the ROW of project roadways.

Affordable Housing Plan
The proposed project's Affordable Housing Plan would be negotiated with and determined by the City's Affordable Housing Coordinator and reviewed by the Affordable Housing Steering Committee prior to being taken to the City's Planning Commission and City Council for approval with the project's other requested entitlements.

Development Agreement
The Development Agreement is subject to negotiation with and approval by the City. The Development Agreement would allow the City and the applicant to enter into an agreement to assure the City that the proposed project would be completed in compliance with the plans submitted by the applicant, and assure the applicant of vested rights to develop the project.

ENVIRONMENTAL EFFECTS

Based on the analysis conducted in the Initial Study prepared for the proposed project (see Attachment), the EIR will address impacts pertaining to the topics identified below. Each resource area chapter will include a discussion of the existing setting, thresholds of significance, evaluation of potential project and cumulative impacts, mitigation measures, and monitoring strategies associated with the resource area.

Aesthetics

The Aesthetics chapter of the EIR will summarize existing regional and project area aesthetics and visual setting. To the extent applicable, the chapter will describe project-specific aesthetics issues such as scenic vistas, trees, scenic highways, existing visual character or quality of the project area, as well as light and glare. Visual representations will be prepared, and the City of Winters General Plan and General Plan EIR will be utilized to determine whether the proposed project could result in the substantial degradation of the existing visual character or quality of the site and its surroundings.

Agricultural Resources

The Agricultural Resources chapter of the EIR will provide information regarding the existing setting relative to agricultural resources on the project site, including reviewing maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to determine whether Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occurs on-site. The setting section will also identify the types of on-site soils. Following the setting discussion, the chapter will identify thresholds of significance applicable to the proposed project and evaluate project-related impacts in comparison to such thresholds.

Air Quality and Greenhouse Gas Emissions (Including Energy)

The air quality and GHG analysis for the proposed project will be executed by utilizing the California Emissions Estimator Model (CalEEMod) software program and following the Yolo-Solano Air Quality Management District (YSAQMD) CEQA Guidelines.

Air Quality

The air quality impact analysis will include a quantitative assessment of short-term (i.e., construction) and long-term (i.e., operational) increases of criteria air pollutant emissions of primary concern (i.e., ROG, NO_X, and PM_{10}) for the proposed project. The significance of air quality impacts will be determined in comparison to YSAQMD-recommended thresholds of significance. Additionally, toxic air contaminant (TAC) emissions, utilizing the California Air Resources Board (CARB) “Air Quality and Land Use Handbook: A Community Health Perspective” will be addressed. The project’s cumulative contribution to regional air quality will be discussed, based in part on the modeling conducted at the project level. Mitigation measures will be incorporated, as necessary, to reduce any significant air quality impacts, and anticipated reductions in emissions associated with proposed mitigation measures will be quantified.

Health Risk Assessment

Diesel particulate matter, a known TAC, is produced during the construction phase of a project and, therefore, construction could result in exposing nearby sensitive receptors to such TACs. A construction Health Risk Assessment (HRA) will be conducted to address both acute and chronic health hazards, carcinogenic and non-carcinogenic, due to exposure of TACs. The significance of health risk impacts will be determined in comparison to the criteria identified in the California Office of Environmental Health Hazard Assessment (OEHHA) Guidelines. The significance of carcinogenic health risk impacts will be expressed in terms of cancer cases per one million individuals. Non-carcinogenic health risk impacts will be determined using YSAQMD’s

recommended Hazard Index. The analysis will be performed in accordance with the 2015 California OEHHA Risk Assessment Guidelines and YSAQMD.

Greenhouse Gas Emissions

CalEEMod will be utilized to produce an estimate of GHG emissions for the project, including indirect emissions (e.g., electricity, natural gas), expressed in units of carbon dioxide equivalents. The modeling will be prepared consistent with YSAQMD guidance, and the analysis will address project consistency with AB 32 and SB 32. In addition, the 2021 City of Winters Climate Action Plan (CAP) will be utilized, and the proposed project will be evaluated for consistency with the CAP. Mitigation measures would be identified, as appropriate, in coordination with the City and YSAQMD, to identify feasible mitigations for GHG emissions.

Energy

Raney will analyze whether the proposed project could result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. The discussion will also evaluate whether the project would conflict with, or obstruct a state or local plan, for renewable energy.

Biological Resources

The Biological Resources chapter of the EIR will include a description of the potential effects to plant communities and wildlife including adverse effects on rare, endangered, candidate, sensitive, and special-status species from build-out of the proposed project. The chapter will be based on a Wetlands Delineation Report, Special Status Plant Survey, and Valley Elderberry Survey. In addition, a search will be conducted of the California Natural Diversity Database (CNDDB) for special status species known to occur within the vicinity of the project site. The Yolo County Habitat Conservation Plan and Natural Communities Conservation Plan will be referenced to evaluate potential impacts associated with the proposed project.

Cultural and Tribal Cultural Resources

The Cultural and Tribal Cultural Resources chapter of the EIR will summarize the setting and briefly describe the potential construction-related effects to any potential on-site historical, archaeological, or paleontological resources. A records search of the California Historical Records Information System from the North Central Information Center will be conducted to identify any known cultural resources on or within the vicinity of the project site. The chapter will also discuss compliance with AB 52 regarding notification of relevant tribes. Recommended mitigation measures will be incorporated, if necessary, to reduce significant cultural and tribal resource impacts.

Land Use and Planning / Population and Housing

The Land Use and Planning / Population and Housing chapter of the EIR will be divided into two topic areas. The Land Use and Planning portion of the chapter will evaluate the consistency of the proposed project with the City's adopted plans and policies. Specifically, a review will be conducted of the City of Winters General Plan and Zoning Ordinance, and any other appropriate documents to address any policy or consistency issues due to the proposed project. The chapter will identify land use impacts, mitigation measures, and note any inconsistencies or incompatibilities with adopted plans and polices created by approval of the proposed project.

The Population and Housing portion of the chapter will discuss if the proposed project would directly or indirectly induce substantial unplanned population growth. Information from the California Department of Finance and the General Plan Housing Element will be relied upon.

Noise
The Noise chapter of the EIR will be based on a project-specific Noise Study, which will include noise and vibration surveys to document existing ambient conditions, and subsequently compare the existing levels to the project-generated noise and vibration levels. Project-specific traffic data will be used to model future traffic noise levels on the local roadway network, both with and without the proposed project. The analysis will focus on increases in traffic noise levels due to the project at existing off-site noise-sensitive land uses, and traffic noise levels at sensitive land uses proposed by the project will conduct analyses of noise and vibration levels generated by on-site commercial operations (e.g., truck delivery activities, truck circulation, parking lot movements, roof-top mechanical equipment), park activities, and project construction. Those levels will be used for the subsequent evaluation of impacts at both existing and proposed sensitive land uses. Where the noise or vibration generation of such sources could exceed applicable City of Winters noise or vibration criteria or result in a significant increase in ambient noise or vibration levels at nearby sensitive uses, mitigation measures will be included to address such impacts.

Public Services and Utilities
The Public Services and Utilities chapter of the EIR will be divided into two impact areas. The Public Services section of the chapter will summarize setting information, and identify potential new demand for services, including fire, police, schools, parks, and recreation. Information from the City of Winters General Plan, General Plan EIR, and public agencies will be utilized, as needed, to evaluate the project's potential impacts to public services, and whether the project's increased demand for service would result in the need for new or physically altered governmental facilities in order to maintain the acceptable service ratios, response times, and other performance objectives of the City of Winters's public services.

The Utilities section of the chapter will address potential new demand for water supply, wastewater conveyance and treatment, and solid waste disposal, as well as address potential water pressure concerns. Storm Drainage Assessment and Sewer Cost Allocation Plan will be relied upon. The EIR will address the need for any off-site utility improvements, as necessary, in order to adequately serve the proposed development. For wastewater, the City of Winters' Wastewater Treatment Facility Master Plan Update 2018 will be relied upon. For solid waste, the Waste Management website will be consulted for relevant data and project construction and operational waste streams. Other utility systems that would be considered in this chapter include electricity and natural gas.

Transportation
Since July 1, 2020, the metric of analysis to determine whether a project's transportation impact(s) would be significant under CEQA is Vehicle Miles Traveled (VMT). According to CEQA Guidelines Section 15064.3, VMT is the most appropriate measure of transportation impacts. Therefore, a project-specific VMT Analysis will be relied upon for impact determination purposes. The City of Winters has not formally adopted guidance or thresholds related to VMT impact analysis (i.e., tailored screening criteria, preferred metrics and calculation methods, and use-specific thresholds). Therefore, the analysis will rely on guidance from the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation impacts in CEQA.

A project-specific level of service (LOS) Analysis will be used to determine the project's consistency with the City of Winters' adopted LOS standards in their General Plan. Intersection LOS will also be considered in comparison to the City of Winters' Circulation Master Plan as well as the Caltrans' Draft Transportation Corridor Concept Report State Route 128. The analysis will evaluate project-related impacts at the following study intersections:

1. Grant Avenue/Railroad Avenue;
2. Grant Avenue/Dutton Street;
3. Grant Avenue/Walnut Lane;
4. Grant Avenue/Morgan Street;
5. Grant Avenue/East Main Street;
6. Grant Avenue/Timber Crest Road/PG&E Way;
7. Grant Avenue/Matsumoto Lane/County Road 90;
8. Grant Avenue/I-505 Southbound Ramps;
9. Grant Avenue/I-505 Northbound Ramps;
10. Grant Avenue/Street A (future intersection); and
11. East Main Street/Broadview Road (future intersection).

Alternatives

In accordance with Section 15126.6(a) of the CEQA Guidelines, the EIR will include an analysis of several project alternatives, including the No Project Alternative. The Alternatives Analysis chapter will describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially reduce any of the significant effects of the project. The EIR will include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. The EIR will also include a discussion of the environmentally superior alternative, and a description of alternatives considered but rejected from detailed analysis.

At this time, the alternatives to be analyzed by the EIR are still under consideration. Input is sought from the public as to alternatives to be included in the EIR.

Attachment:
Initial Study

City of Winters
Community Development Department

Farmstead Subdivision Project

Initial Study

November 2021

Prepared by

RANEY PLANNING & MANAGEMENT, INC. 20 years
1501 Sports Drive, Suite A, Sacramento, CA 95834

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INITIAL STUDY
NOVEMBER 2021

A. BACKGROUND

1. Project Title: Farmstead Subdivision Project

2. Lead Agency Name and Address: City of Winters
Community Development Department
Planning Division
318 First Street
Winters, CA 95694

3. Contact Person and Phone Number: Kirk Skierski
Senior Planner
(530) 795-4910

4. Project Location: Northwest of State Route (SR) 128/Timber Crest Road intersection
Winters, CA
Assessor's Parcel Number (APN) 038-050-018

5. Project Sponsor's Name and Address: Wood Rodgers, Inc.
3301 C Street, Building 100-B
Sacramento, CA 95816
(916) 341-7760

6. Existing General Plan Designation: Open Space (OS)
Neighborhood Commercial (NC)
Low Density Residential (LR)

7. Existing Zoning Designation: Open Space (O-S)
Neighborhood Commercial (C-1)
Single Family Residential 7,000 Square-Foot Average Minimum (R-1)

8. Required Entitlements: General Plan Amendment
Rezone
Tentative Subdivision Map
Affordable Housing Agreement
Development Agreement

9. Surrounding Land Uses and Setting:

The approximately 61.9-acre project site is located to the northwest of the SR 128/Timber Crest Road intersection in the City of Winters, California. The project site is identified by Yolo County APN 038-050-018. The portion of SR 128 adjacent to the project site is also designated as East Grant Avenue. The City's General Plan currently designates the northeast portion of the site as OS, the northwest portion as LR, and the southern portion as NC. The project site's zoning districts currently consist of O-S in the northeast portion of the property, R-1 in the northwest portion of the site, and C-1 in the southern portion.

The project site currently serves as an undeveloped agricultural field used for annual row crops. Existing surrounding land uses include unincorporated agricultural land currently used for row crops to the north; undeveloped grassland zoned for Highway Service Commercial (C-H) uses and a single-family residence with associated outbuildings immediately to the east, across from Timber Crest Road; a fueling station and fast-food restaurant located further to the east; undeveloped grassland zoned for C-1 uses and a single-family residence with associated outbuildings immediately to the south, across from SR 128; a single-family residential neighborhood located further to the south; and a fueling station, grocery store, dental office, single-family residential neighborhood, and undeveloped land to the west.

10. Project Description Summary:

    The proposed project would include subdivision of the project site to develop 200 single-family residential units on 36.7 gross acres, 84 multi-family residential units on 4.2 gross acres, 135,000 square feet (sf) of commercial uses across seven lots totaling 12.4 gross acres, 3.2 gross acres of open space and Drainage Channel, and 5.4 gross acres of parkland. In addition, the project would include several roadway improvements within on-site and off-site areas. The proposed project would require approval of the following entitlements: General Plan Amendment (GPA), Rezone, Tentative Subdivision Map (TSM), Affordable Housing Plan, and a Development Agreement.

11. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

    In compliance with Assembly Bill (AB) 52 (Public Resources Code [PRC] Section 21080.3.1), a project notification letter was distributed to Tribal Historic Preservation Officer Yvonne Perkins of the Yocha Dehe Wintun Nation on September 27, 2021. On October 15, 2021, the Yocha Dehe Wintun Nation initiated consultation and requested a site visit. Consultation with the City is underway.

B. SOURCES

All of the technical reports and modeling results used for the purposes of this analysis are available for viewing on the City's website at http://projects.cityofwinters.org. The following documents are referenced information sources utilized by this analysis:

1. ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* 2013.
2. California Building Standards Commission. *California Green Building Standards Code*. Available at: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen. Accessed September 2021.
3. California Department of Conservation. *California Important Farmland Finder*. Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed September 2021.
4. California Department of Forestry and Fire Protection. *Fire Hazard Severity Zones Maps*. Available at: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/. Accessed September 2021.
5. California Department of Forestry and Fire Protection. *Yolo County: Fire Hazards Severity Zones in SRA*. November 7, 2007.
6. California Department of Forestry and Fire Protection. *Yolo County: Draft Fire Hazard Severity Zones in LRA.* October 5, 2007.

7. California Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: https://dtsc.ca.gov/dtscs-cortese-list. Accessed June 2021.
8. California Department of Transportation. *California State Scenic Highway System Map*. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed September 2021.
9. California Department of Water Resources. *California Well Standards, Combined*. Available at: https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Standards/Combined-Well-Standards. Accessed September 2021.
10. California Energy Commission. *2019 Building Energy Efficiency Standards: Frequently Asked Questions*. Available at: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf. Accessed June 2021.
11. California Energy Commission. *California Energy Commission 2019 Building Energy Efficiency Standards What's New for Nonresidential*. Available at: https://www.energy.ca.gov/media/3455. Accessed June 2021.
12. California Geological Survey. *Earthquake Zones of Required Investigation.* Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed September 2021.
13. Centers for Disease Control and Prevention. *Overview of Water-related Diseases and Contaminants in Private Wells*. Available at: https://www.cdc.gov/healthywater/drinking/private/wells/diseases.html. Accessed July 2021.
14. City of Winters Public Works Department. *Improvement Standards and Standard Drawings*. April 2016.
15. City of Winters. *City of Winters General Plan Environmental Impact Report*. Available at: http://www.cityofwinters.org/community-dev-reports/. Accessed September 2021.
16. City of Winters. *Mitigated Negative Declaration - I-505/Grant Avenue Planning Area Land Use Modifications Project.* April 25, 2012.
17. City of Winters. *Storm Drainage Master Plan Northeast Area, City of Winters, California*. March 2020.
18. City of Winters. *Water Master Plan*. December 2006.
19. Federal Emergency Management Agency. *Flood Insurance Rate Map 06113C0564G.* Effective June 18, 2010.
20. National Center for Biotechnology Information, U.S. National Library of Medicine, National Institutes of Health. *Organochlorine pesticides, their toxic effects on living organisms and their fate in the environment*. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5464684/. Accessed September 2021.
21. United States Department of Agriculture, Natural Resources Conservations Service. *Web Soil Survey*. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed September 2021.
22. Yolo County LAFCo. *City of Winters Municipal Services Review and Sphere of Influence Study*. September 26, 2008.
23. Yolo County. *Evacuation Zone 59*. Available at: https://www.yolocounty.org/home/showpublisheddocument/58533/636952539156700000. Accessed September 2021.
24. Yolo County. *Yolo County 2030 Countywide General Plan*. Available at: https://www.yolocounty.org/government/general-government-departments/county-administrator/general-plan/adopted-general-plan. Accessed September 2021.
25. Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts, Adopted July 11, 2007*. Available at: http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf. Accessed September 2021.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant" as indicated by the checklist on the following pages.

✖ **Aesthetics**	✖ **Agricultural and Forestry Resources**	✖ **Air Quality**
✖ **Biological Resources**	✖ **Cultural Resources**	✖ **Energy**
☐ **Geology and Soils**	✖ **Greenhouse Gas Emissions**	☐ **Hazards and Hazardous Materials**
☐ **Hydrology and Water Quality**	✖ **Land Use and Planning**	☐ **Mineral Resources**
✖ **Noise**	✖ **Population and Housing**	✖ **Public Services**
☐ **Recreation**	✖ **Transportation**	✖ **Tribal Cultural Resources**
✖ **Utilities and Service Systems**	☐ **Wildfire**	✖ **Mandatory Findings of Significance**

D. DETERMINATION

On the basis of this initial study:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

✖ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature Date

David Dowswell, Contract City Planner City of Winters

Printed Name For

E. BACKGROUND AND INTRODUCTION

This Initial Study provides an environmental analysis pursuant to the California Environmental Quality Act (CEQA) for the proposed project. The applicant has submitted an application to the City of Winters, which is the Lead Agency for the purposes of CEQA review. The information and analysis presented in this document are organized in accordance with the order of the environmental checklist form in Appendix G of the CEQA Guidelines. Where the analysis provided in this document identifies potentially significant environmental effects of the project that can be mitigated to a less-than-significant level, mitigation measures are prescribed. Where the analysis provided in this document identifies potentially significant environmental effects of the project that require additional analysis, further evaluation of such effects will be provided in the Environmental Impact Report (EIR) to be prepared for the project.

The City of Winters adopted the General Plan and certified the General Plan EIR on May 19, 1992. The General Plan EIR was prepared as a program-level EIR, pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations [CCR] Sections 15000 et seq.). The City of Winters General Plan EIR analyzed the proposed General Plan and Alternatives. Additionally, the City of Winters adopted the 2021 Winters Climate Action Plan (CAP) on July 20, 2021, which identifies workable climate change abatement and mitigation strategies for the City, residents, and local businesses. The project site is located within the boundaries of the I-505/Grant Avenue Planning Area Land Use Modifications Project, for which an Initial Study/Mitigated Negative Declaration was approved by the City.[1] Information for the environmental setting discussions for each section of this Initial Study is largely based on information in the City of Winters General Plan, General Plan EIR, CAP, and I-505/Grant Avenue Planning Area Land Use Modifications Project Initial Study/Mitigated Negative Declaration.

F. PROJECT DESCRIPTION

The following section includes a description of the project's location and surrounding land uses, as well as a discussion of the project components and discretionary actions requested of the City of Winters by the applicant.

Project Location and Setting

The approximately 61.9-acre project site is located to the northwest of the SR 128/Timber Crest Road intersection, within the eastern portion of the City of Winters, California (see Figure 1 and Figure 2). The project site is identified by APN 038-050-018.

The project site's topography is generally flat, with a slight slope with approximate elevations of 29 feet above sea level at the northwest edge of the property and 23 feet above sea level near the southeast portion of the site, adjacent to SR 128. The project site's elevation level results in an average slope of less than a half percent. The property has been used for farming for many decades, with the ground periodically tilled for row crops, hay, or other dry farming purposes. The site currently serves as an undeveloped agricultural field used for annual row crops.

Vegetation within the project site consists primarily of ruderal non-native species, including alfalfa, ripgut brome, black mustard, perennial rye grass, and slender wild oat.

[1] City of Winters. *Mitigated Negative Declaration - I-505/Grant Avenue Planning Area Land Use Modifications Project.* April 25, 2012.

Figure 1
Regional Project Location



Figure 2
Project Site Boundaries



In addition, the perimeter of the property contains numerous trees and shrubs, including valley oak, paradox walnut, English walnut, olive, and common fig along the southern border; volunteer domestic almond trees along the northern, eastern, and western boundaries; and two large coast redwoods within a degraded gravel driveway area generally located immediately north of the center of the southern property line.

An approximately 0.8-acre roadside ditch is located within the project site parallel to SR 128. A culvert located under SR 128, near the southeast corner of the project site, connects flows from the roadside ditch to a linear detention basin owned by Pacific Gas & Electric (PG&E) Co.

The PG&E linear detention basin is an approximately 60-foot-wide aquatic feature with a flat bottom and 3:1 sloped sides. The PG&E linear detention basin was installed in 2016 to collect and temporarily detain stormwater flows from roadside ditches along SR 128, the PG&E Gas Safety Facility located to the southeast of the project site, and surrounding planned future development. Currently, the PG&E linear detention basin extends south from SR 128 to a ditch along Interstate 505 (I-505), which flows over a concrete apron, down a steep slope, and into Putah Creek. The southeasterly two thirds of the site is subject to shallow flooding as indicated on the property's Flood Insurance Rate Map (FIRM) panels, which illustrate the 100-year floodplain. The 100-year floodplain generally spills from parcels located to the north of the project site and travels south toward SR 128 and Putah Creek.

The existing General Plan land use designations for the site are Open Space (OS), Low Density Residential (LR), and Neighborhood Commercial (NC). The site's current zoning districts consist of Open Space (O-S), Single Family Residential 7,000 Square-Foot Average Minimum (R-1), and Neighborhood Commercial (C-1).

Existing surrounding land uses include unincorporated agricultural land currently used for row crops to the north; undeveloped grassland zoned for C-H uses and a single-family residence with associated outbuildings immediately to the east, across from Timber Crest Road; a fueling station and fast-food restaurant located further to the east; undeveloped grassland zoned for C-1 uses and a single-family residence with associated outbuildings immediately to the south, across from SR 128; a single-family residential neighborhood located further to the south; and a fueling station, grocery store, dental office, single-family residential neighborhood, and undeveloped land to the west. It should be noted that the latter undeveloped parcel to the west of the project site is known as the Walnut Lane 10 parcel, which has been previously approved by the City for a 54-lot subdivision development.

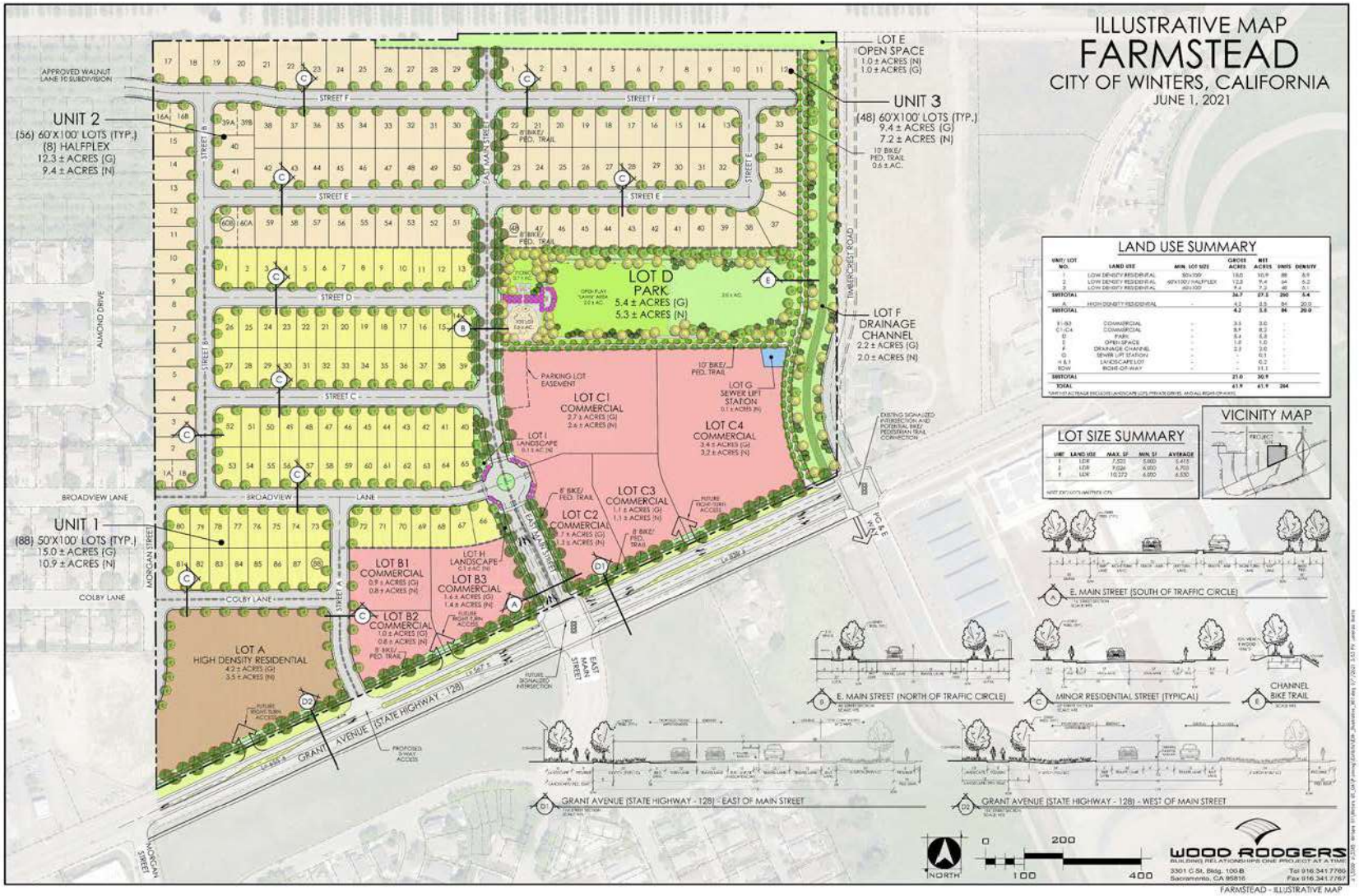
Project Components

The proposed project would include subdivision of the project site to develop 200 single-family residential units on 36.7 gross acres, 84 multi-family residential units on 4.2 gross acres, 135,000 sf of commercial uses across seven lots totaling 12.4 gross acres, 3.2 gross acres of open space and Drainage Channel, and 5.4 gross acres of parkland (see Figure 3).[2] In addition, the project would include several roadway improvements within on-site and off-site areas. The proposed project would require approval of the following entitlements: GPA, Rezone, TSM, Affordable Housing Plan, and a Development Agreement.

The proposed project components, along with all required entitlements, are described in the following sections.

[2] Gross acreage is generally defined as the entire parcel and includes areas comprised by private drives, public roads, and landscape lots. Conversely, net acreage refers to the developable acreage of a parcel.

Figure 3
Farmstead Subdivision Tentative Subdivision Map



General Plan Amendment

The proposed project includes a GPA to re-configure the project site's existing land use designations, based on the TSM that has been submitted to the City (see Figure 4). The GPA would include a new 4.2-gross acre High Density Residential (HR) land use designation in the southwest corner of the site, which is currently NC. The property's OS land use designation area would be reconfigured and reduced, based on detention basin sizing and channel alignment determined by the City's Storm Drainage Master Plan Northeast Area.[3]

The GPA would also reconfigure and reduce the site's NC land use designation and expand the Low Density Residential (LR) designation. Table 1 shows the acreages for the property's existing and proposed General Plan land use designations.

Table 1
Farmstead Subdivision General Plan Amendment

Land Use Designation	Existing Acreage	Proposed Acreage
Low Density Residential	33.7	37.6
High Density Residential	0	4.2
Neighborhood Commercial	14.7	12.4
Open Space	13.5	7.7
Total	**61.9**	**61.9**

Rezone

The proposed Rezone would reconfigure the project site's zoning designations to those shown in Figure 5. The southwest corner of the project site would feature an approximately 4.2-acre High Density Multi-Family Residential (R-4) zone. The property's C-1 and O-S zoning districts would be reconfigured and reduced to 12.4 gross acres and 7.7 gross acres, respectively. A new 15-acre Single Family Residential 6,000 Square-Foot Average Minimum (R-2) zone would be established in the western portion of the site. The existing R-1 zone would be reconfigured and reduced from 33.7 gross acres to 22.6 gross acres. Lastly, the Rezone would add a Planned Development (PD) overlay zone to the entirety of the site, which would allow for a degree of flexibility from the residential development standards, as discussed in Chapter 17.48 of the City's Municipal Code. Table 2 shows the acreages for the property's existing and proposed zoning districts.

Table 2
Farmstead Subdivision Rezone

Zoning District	Existing Acreage	Proposed Acreage
Single Family Residential (6,000 sf min)	33.7	22.6
Single Family Residential (5,000 sf min)	0	15
High Density Multi-Family Residential	0	4.2
Neighborhood Commercial	14.7	12.4
Open Space	13.5	7.7
Total	**61.9**	**61.9**

Through approval of the PD overlay, the project site's proposed R-1 zoning district would include a minimum lot size of 6,000 sf and duplex or half-plex lots on four corner lots to provide variety in the types of proposed residential structures. The R-2 zoning district would include a minimum lot size of 5,000 sf to provide a third single-family residential product type.

[3] City of Winters. *Storm Drainage Master Plan Northeast Area, City of Winters, California*. March 2020.

Figure 4
Farmstead Subdivision Proposed General Plan Amendment

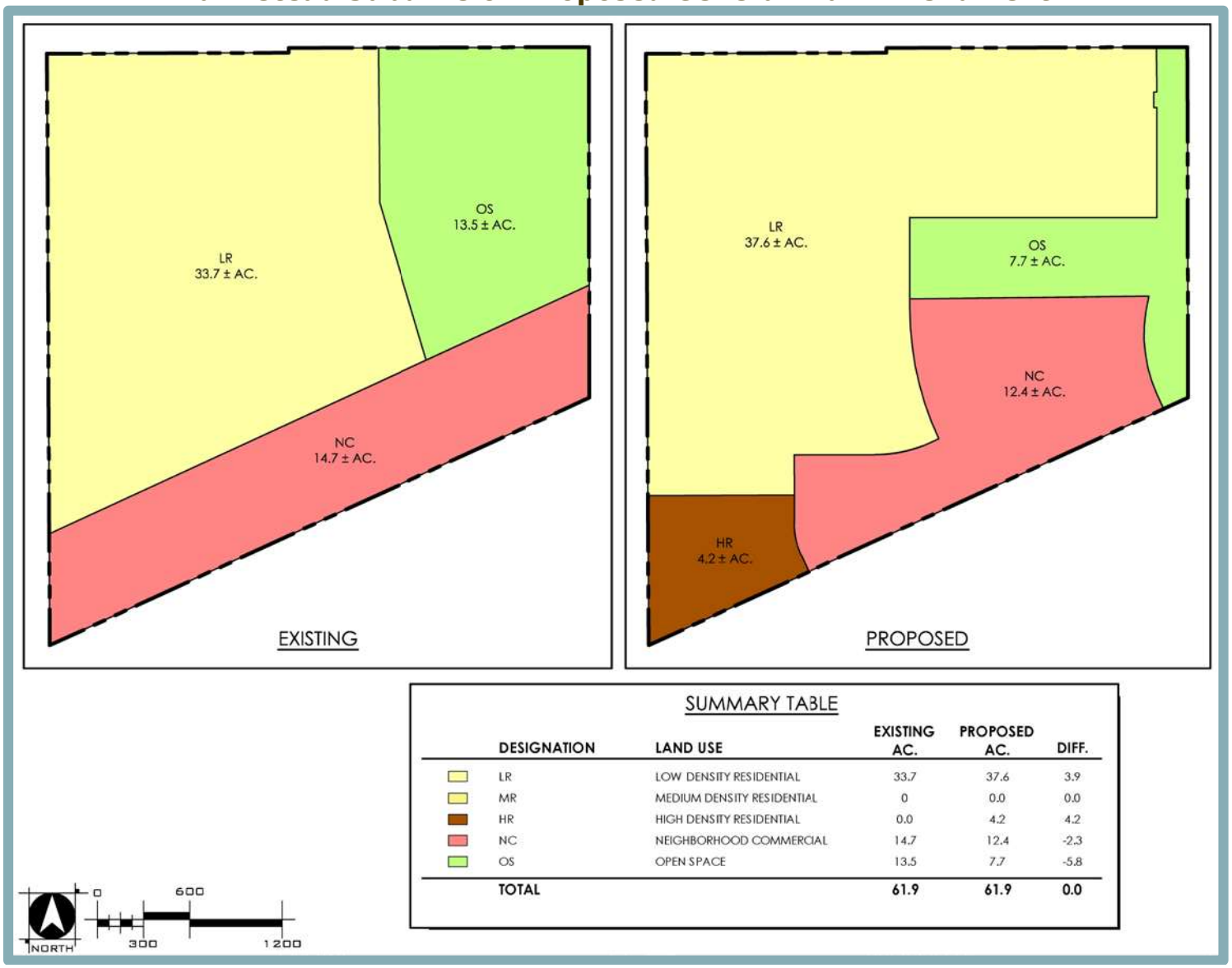
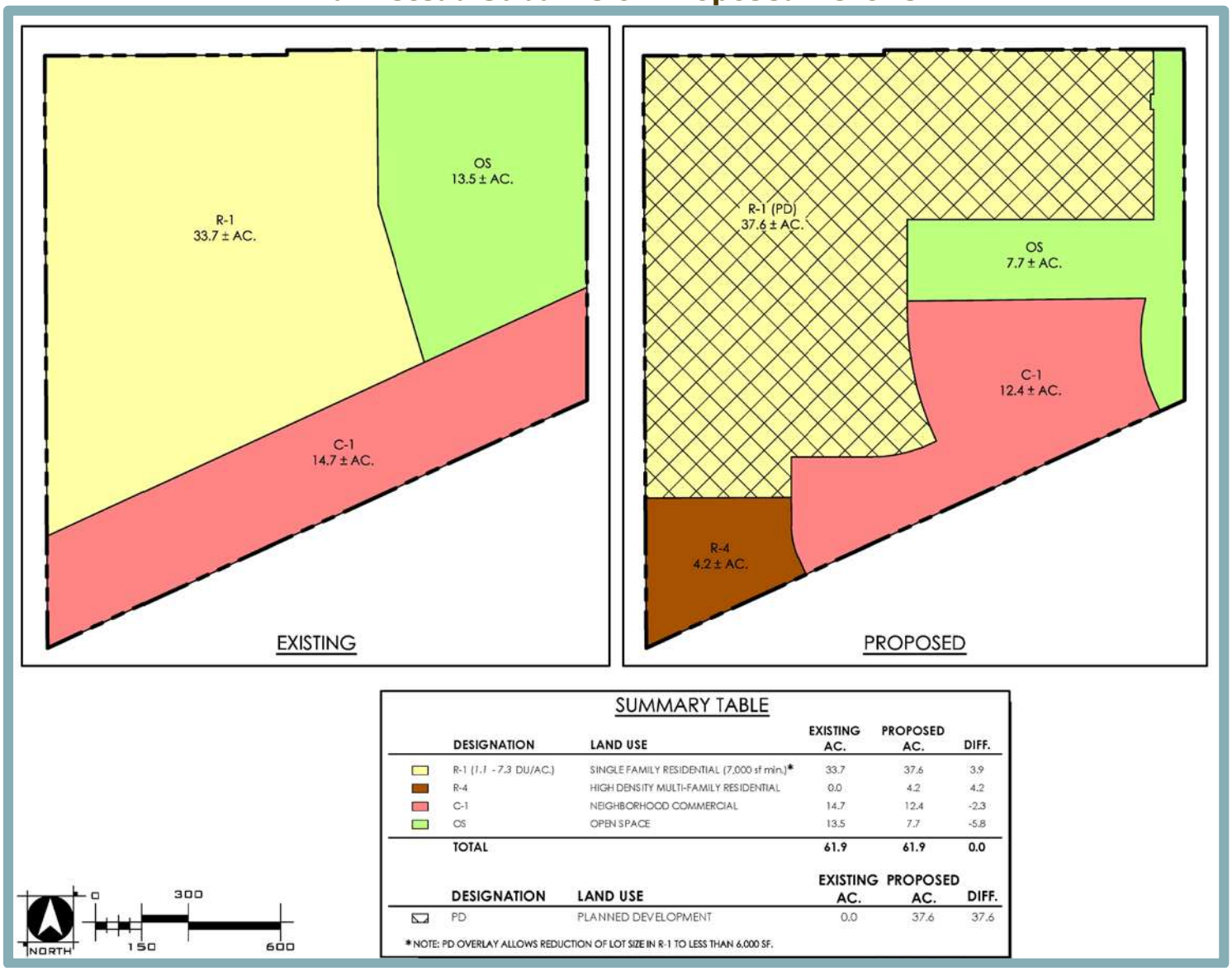


Figure 5
Farmstead Subdivision Proposed Rezone



SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
R-1 (1.1 - 7.3 DU/AC.)	SINGLE FAMILY RESIDENTIAL (7,000 sf min.)*	33.7	37.6	3.9
R-4	HIGH DENSITY MULTI-FAMILY RESIDENTIAL	0.0	4.2	4.2
C-1	NEIGHBORHOOD COMMERCIAL	14.7	12.4	-2.3
OS	OPEN SPACE	13.5	7.7	-5.8
TOTAL		**61.9**	**61.9**	**0.0**

DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
PD	PLANNED DEVELOPMENT	0.0	37.6	37.6

*NOTE: PD OVERLAY ALLOWS REDUCTION OF LOT SIZE IN R-1 TO LESS THAN 6,000 SF.

Tentative Subdivision Map

As established by Section 16.01.010 of the City's Municipal Code, notwithstanding the exceptions provided therein, a TSM and Final Map are required for all divisions of land where the Community Development Director has determined that such land would be divided into five or more parcels. Therefore, the proposed project would be subject to all applicable requirements set forth in Chapter 16.01 of the Municipal Code. As shown in Figure 3, the TSM illustrates the details of the project's proposed lotting pattern and street system, sidewalks and trails, and other features of the project. In addition, the TSM shows the proposed locations of the 84-unit HR site and the 200 single-family residential lots, lot dimensions, street sections, and other details.

The proposed project's residential and commercial uses, parkland and open space, and access and circulation are described in further detail below.

Residential Uses

As depicted in Figure 3, the proposed project would include 36.7 gross acres of single-family residential uses as well as 4.2 gross acres of multi-family residential uses. The proposed single-family residential uses would be implemented within three areas, which are referred to as Unit 1, Unit 2, and Unit 3. Unit 1, containing 15 gross acres, would be located to the west of the future East Main Street, an interior project roadway discussed in further detail below. Unit 1 would include 88 lots, with lot sizes ranging from 5,000 sf to 7,522 sf, and would result in a density of 5.9 dwelling units per acre (du/ac). Unit 2, with an area of 12.3 gross acres, would similarly be located to the west of East Main Street. Unit 2 would consist of 64 total lots, with lot sizes ranging from 6,000 sf to 9,026 sf, and would result in a density of 5.2 du/ac. Unit 2 would feature eight half-plex units, which would be constructed on Lots 1, 16, 39, and 60. Lastly, Unit 3 would be located to the east of East Main Street and would span 9.4 gross acres. Unit 3 would feature 48 lots, with lot sizes ranging from 6,000 sf to 10,272 sf, and would result in a density of 5.1 du/ac.

The proposed 84 multi-family residential units would be within the southwest portion of the project site on a lot containing 4.2 gross acres. The multi-family residential units would result in a density of 20 du/ac and provide a mix of market-rate and affordable units, in accordance with the project's Affordable Housing Plan, which would require approval by the City Council. As established by Section 17.200.030 of the City's Municipal Code, notwithstanding the exceptions provided therein, all development projects consisting of five or more residential units within the City limits must include inclusionary housing units equal to 15 percent of the total number of residential units in the development project, excluding density bonus units. The 15 percent inclusionary housing requirement must consist of six percent Very Low-Income units and nine percent Low Income or Moderate Income units in proportion to the unmet needs for each identified group in the 2021-2029 Housing Element Update.

The proposed project's Affordable Housing Plan would be negotiated with the City's Affordable Housing Coordinator and reviewed by the Affordable Housing Steering Committee prior to being taken to the City's Planning Commission and City Council for approval with the project's other requested entitlements.

Commercial Uses

The proposed project would include seven lots designated and zoned for commercial uses, shown on Figure 3 as Lots B1 through B3 to the west of East Main Street and Lots C1 through C4 to the east of the roadway. Lots B1 through B3 would total 3.5 gross acres and Lots C1 through C4 would total 8.9 gross acres. The development on the commercial lots is assumed to range from

135,000 sf to a maximum of 216,057 sf, based on the maximum floor area ratio of 0.40 allowed for commercial uses in the NC land use designation.

Parkland and Open Space

The proposed project would include approximately 5.4 gross acres of parkland on Lot D, located centrally within the project site to the east of East Main Street and to the north of Lots C1 and C4. The park site would include approximately 0.7 acres of picnic areas, a 0.6-acre tot lot, and four acres of open play lawn area. The easterly portion of the open play lawn area would also serve as a water quality and detention basin for the proposed project, which would be sized to capture post-development flows within the project site. Collected runoff would then be released to the project site's new 75-foot Drainage Channel, which would be located parallel to Timber Crest Road. Additionally, Lot E, situated to the north of the Lot 3 Low Density Residential units would provide one acre of undeveloped open space.

Access and Circulation

The proposed project would include several roadway and frontage improvements. Primary site access would be provided by way of two new roads, which would be extended into the project site from SR 128. East Main Street, which currently ends at an intersection with SR 128, would be extended northward into the project site. The SR 128/East Main Street intersection would include installation of a new signal. Street A, another new internal roadway, would be constructed northward into the project site and would be located between the new segment of East Main Street and the existing Morgan Street. Additionally, as detailed on the TSM, the proposed project would include future right-turn access points along SR 128 and the project frontage for westbound vehicles to enter the project site at Lots C3/C4, Lots B2/B3, and Lot A. Lastly, Morgan Street, an existing neighborhood road located parallel to a portion of the project site's western boundary, would be expanded in width from Broadview Lane to the road's existing stub.

Internal circulation would be provided by way of extensions to existing roadways as well as construction of new roads. Broadview Lane and Colby Lane, existing neighborhood roads that are currently stubbed at the project site's western property line, would be extended eastward into the project site and intersect with Street A. Internal circulation would also be provided through the construction of new roadways Streets B through F. Street F, which would be implemented generally in an east-to-west direction in the northern portion of the project site, would be stubbed at the project site's western property line. However, the road would eventually provide access to the Walnut Lane 10 parcel, which is located to the west of the project site and has been previously approved for a 54-lot subdivision development.

As noted on the TSM prepared for the proposed project (see Figure 3), a traffic circle would be implemented along East Main Street, adjacent to Lots C1 and C2 and the Unit 1 single-family residential lots. South of the traffic circle, East Main Street would feature a 76-foot-wide Right-of-Way (ROW). The ROW of the foregoing portion of East Main Street would include a three-foot median, generally in the center of the roadway. Each half of the ROW would include a 12-foot vehicle travel lane, an 11-foot turn lane, a five-foot bicycle lane, and a three-foot area for curbs and gutters. A public utilities easement would be located along both sides of the ROW, comprised of an eight-foot bicycle/pedestrian path situated between two six-foot landscape strips. To the north of the traffic circle, East Main Street would consist of a 40-foot ROW. Each half of the ROW would be comprised of a 12-foot vehicle travel lane, a five-foot bicycle lane, and a three-foot area for curbs and gutters. Along the easterly side of the ROW, a 20-foot public utilities easement would consist of a seven-foot landscape strip, an eight-foot sidewalk, and a five-foot landscape

strip. Along the westerly side of the ROW, a 20-foot public utilities easement would consist of a seven-foot landscape strip, a five-foot sidewalk, and an eight-foot landscape strip.

With respect to the remaining interior roadways, the streets would each consist of a 50-foot-wide ROW. Each half of the ROW would feature a 17-foot vehicle travel lane, a three-foot area for curbs and gutters, and a five-foot attached sidewalk. A 12.5-foot public utilities easement would be located along each side of the ROW and provide for landscaping trees.

Finally, a network of bicycle and pedestrian trails are proposed as part of the project. A 10-foot-wide trail extending 1,150 linear feet is proposed along the western boundary of the Drainage Channel, which would allow for a connection to the signalized intersection at the SR 128/Timber Crest Road at the southeast corner of the project site. From the SR 128/Timber Crest Road intersection, bicyclists and pedestrians could then travel further southward to the PG&E Trail and Putah Creek Trail, located to the south of the project site, which would then connect to Old Town Winters. Additionally, a 10-foot-wide trail extending 750 linear feet would be located on the southern boundary of the Lot D park site. An eight-foot-wide trail extending 1,400 linear feet would be implemented along the easterly portion of East Main Street, and an eight-foot-wide trail extending 1,850 linear feet would be located along the northerly side of SR 128. The proposed on-site trails would total approximately one mile in length.

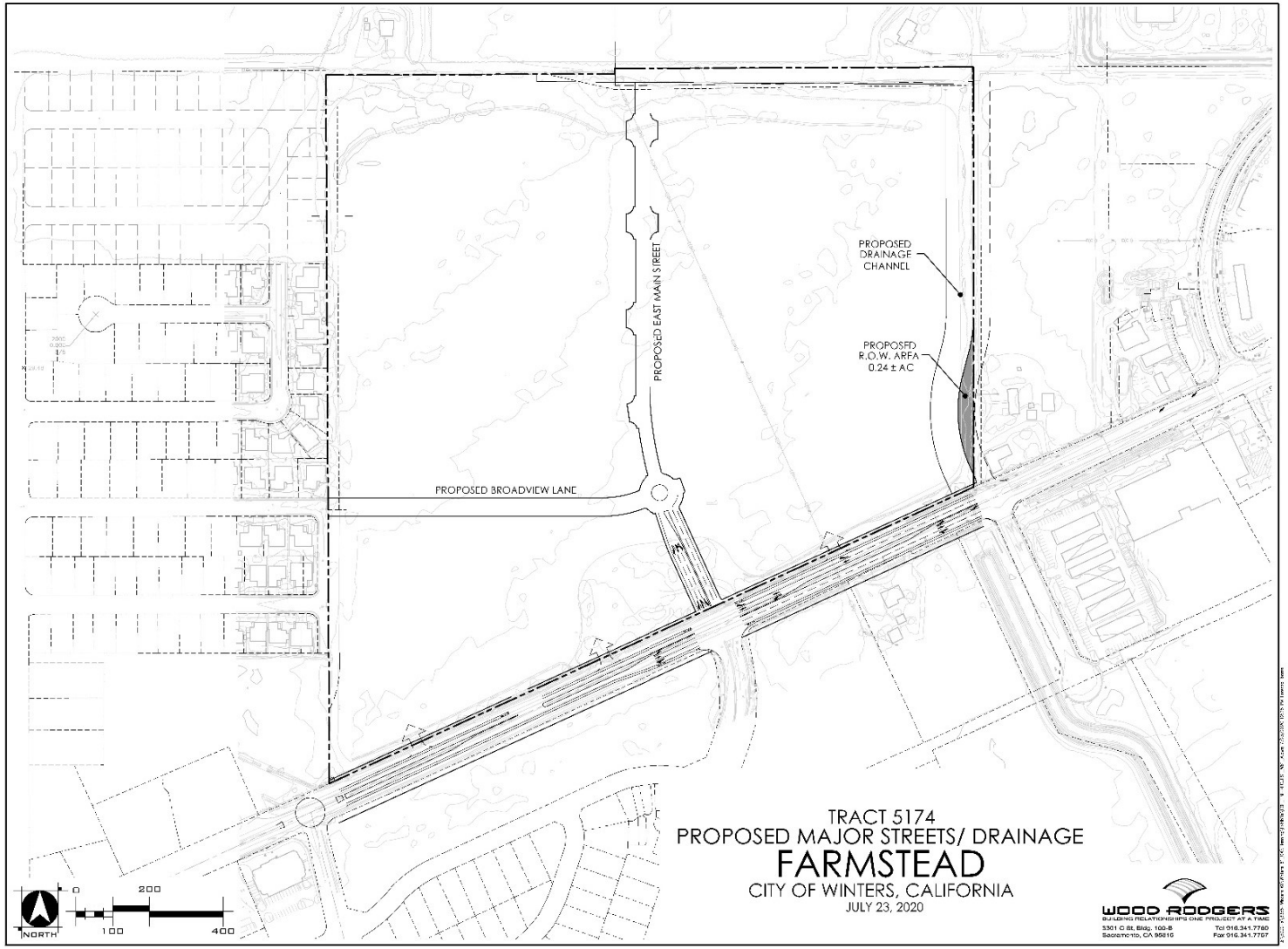
Utilities and Service Systems

The proposed project would include on-site water, sanitary sewer, and stormwater improvements, which would connect to the existing infrastructure in the project vicinity. The proposed project would include a looped water system. From the existing water main located in SR 128, a 12-inch water main would be extended into the project site within the East Main Street ROW, which would eventually connect to a new 12-inch water line located in Street F. The latter water line would be stubbed at the project site's western boundary. Additionally, existing eight-inch water lines currently stubbed at the property's western perimeter within Broadview Lane and Colby Lane would be extended into the project site.

Similarly, the proposed project would include implementation of new sewer lines within the project site's interior roadways. Wastewater would be conveyed to a new sewer lift station located on Lot G, situated in the northeast corner of Lot C4. Wastewater would be pumped from the lift station to the existing eight-inch sewer main located within the SR 128 ROW. The eight-inch sewer main connects southeast to an existing lift station located on the PG&E Gas Safety Facility. From the latter lift station, wastewater flows would be conveyed to the City's Wastewater Treatment Facility, located at the northwest edge of the City limits.

As previously discussed, the easterly portion of the open play lawn area in Lot D would serve as a water quality and detention basin for the proposed project, which would be sized to capture post-development flows within the project site. Collected runoff would be released to the project site's new 75-foot Drainage Channel, which would be located parallel to Timber Crest Road (see Figure 6). From the Drainage Channel, stormwater flows would be conveyed southward by way of a new upsized culvert under SR 128 into the existing stormwater channel owned by PG&E. The PG&E stormwater channel extends south from SR 128 to a ditch along I-505, which flows over a concrete apron, down a steep slope, and into Putah Creek. The PG&E stormwater channel to the south of the project site would be deepened, with a new culvert installed at the end of the ditch.

Figure 6
Farmstead Subdivision Drainage Plan



Lastly, existing natural gas, electricity, and telecommunications infrastructure is located along SR 128. From the point of connection to the existing facilities, new natural gas, electricity, and telecommunications infrastructure would be extended into the project site within the ROW of project roadways.

Development Agreement

The Development Agreement is subject to negotiation with and approval by the City. The Development Agreement would allow the City and the applicant to enter into an agreement to assure the City that the proposed project would be completed in compliance with the plans submitted by the applicant, and assure the applicant of vested rights to develop the project.

Required Public Approvals

The City of Winters has discretionary authority and is the lead agency for the proposed project. In addition to adoption of this Initial Study and the associated Mitigation Monitoring and Reporting Program, the proposed project requires approval of the following entitlements by the City of Winters:

- GPA to amend the project site to increase the LR land use designation from 33.7 acres to 37.6 acres, add a 4.2-acre HR land use designation, reduce the NC land use designation from 14.7 acres to 12.4 acres, and reduce the OS land use designation from 13.5 acres to 7.7 acres;
- Rezone to add a Planned Development overlay zone to the entirety of the project site, reduce the R-1 zone from 33.7 acres to 22.6 acres, add a 15-acre R-2 zone, add a 4.2-acre R-4 zone, reduce the C-1 zone from 14.7 acres to 12.4 acres, and reduce the O-S zone from 13.5 acres to 7.7 acres;
- Tentative Subdivision Map;
- Affordable Housing Agreement; and
- Development Agreement.

The proposed project would require the following additional City of Winters approvals:

- Parcel Map;
- Design Review approval for the project's model homes, multi-family residential units, and commercial developments including signage; and
- Conditional Use Permit for a possible restaurant and drive-thru.

G. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less-Than-Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	✖	☐	☐	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	✖	☐	☐	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	✖	☐	☐	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	✖	☐	☐	☐

Discussion

a-d. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. While the Winters General Plan does not designate official scenic view corridors or vistas, the City is located in the southwestern valley area of Yolo County, immediately east of Pleasants Ridge. Therefore, implementation of the proposed project could potentially impact views of the ridge. Additionally, as detailed by the California Department of Transportation's (Caltrans) California Scenic Highway Mapping System, SR 128, located adjacent to the southern boundary of the project site, is eligible for official designation as a State scenic highway.[4]

As discussed above, while the project site currently serves as an undeveloped agricultural field used for annual row crops, the site is located within the City limits and existing surrounding land uses include a single-family residence with associated outbuildings immediately to the east, across from Timber Crest Road; a fueling station and fast-food restaurant located further to the east; undeveloped grassland zoned for C-1 uses and a single-family residence with associated outbuildings immediately to the south, across from SR 128; a single-family residential neighborhood located further to the south; and a fueling station, grocery store, dental office, and a single-family residential neighborhood located to the west. Additionally, an undeveloped parcel to the west of the project site is known as the Walnut Lane 10 parcel, which has been previously approved by the City for a 54-lot subdivision development. Therefore, based on the existing setting, the project site would be considered to be within an urbanized area. The proposed project would require approval of discretionary actions related to the project site's General Plan land use designations and zoning districts. Thus, further analysis would be required to ensure the proposed project is consistent with the project site's applicable land use and zoning regulations and standards.

[4] California Department of Transportation. *California State Scenic Highway System Map*. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed September 2021.

Lastly, the project site is currently vacant and undeveloped. Implementation of the proposed project would introduce residential, commercial, and parkland to the project site; therefore, the proposed project would introduce new sources of light and glare where little or none currently exists. Potential sources of light and glare associated with the proposed project would include interior light spilling through windows, exterior lighting on homes and the park, street lighting on the internal street systems, and headlights from on-site vehicle traffic. Further analysis would be required to ensure that such sources of light and glare introduced by the proposed project do not result in the creation of substantial light and glare that would adversely affect day or nighttime views in the project area.

Based on the above information, the proposed project could result in impacts related to scenic vistas, scenic resources in the vicinity of a State scenic highway, conflicts with applicable zoning, and creation of new sources of substantial light or glare. Therefore, a ***potentially significant*** impact could occur.

Further analysis of the above impacts will be included in the Aesthetics chapter of the Farmstead Subdivision Project EIR.

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	✖	☐	☐	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	✖	☐
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	✖
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✖
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	✖	☐	☐	☐

Discussion

a,e. According to the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), approximately 60.8 acres within the project site are designated as "Prime Farmland" and an additional 0.8 acre is designated as "Unique Farmland."[5] The proposed project would include development of the project site with 200 single-family residential units on 36.7 gross acres, 84 multi-family residential units on 4.2 gross acres, 135,000 sf of commercial uses across seven lots totaling 12.4 gross acres, 3.2 gross acres of open space and Drainage Channel, and 5.4 gross acres of parkland. As such, implementation of the proposed project could result in the conversion of Prime Farmland and Unique Farmland to non-agricultural uses. Further analysis would be required to ensure that impacts related to the conversion of Prime Farmland and/or Unique Farmland to non-agricultural uses do not occur.

Based on the above, the proposed project could convert Prime Farmland and Unique Farmland to non-agricultural use or involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. Therefore, the project could result in a ***potentially significant*** impact.

Further analysis of the above impacts will be included in the Agricultural Resources chapter of the Farmstead Subdivision Project EIR.

b. Although the project site currently serves as an undeveloped agricultural field used for annual row crops, the site's zoning districts currently consist of O-S in the northeast portion of the property, R-1 in the northwest portion of the site, and C-1 in the southern portion. As such, the site is not currently zoned for agricultural use. In addition, according to the

[5] California Department of Conservation. *California Important Farmland Finder*. Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed September 2021.

Yolo County General Plan's Agriculture and Economic Development Element, the project site is not currently under a Williamson Act contract.[6]

Based on the above, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and the project would result in a ***less-than-significant*** impact.

c,d. The project site is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

[6] Yolo County. *Yolo County 2030 Countywide General Plan*. [pg. AG-19]. Available at: https://www.yolocounty.org/government/general-government-departments/county-administrator/general-plan/adopted-general-plan. Accessed September 2021.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	✖	☐	☐	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	✖	☐	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	✖	☐	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	✖	☐

Discussion

a,b. The City of Winters is located within the Sacramento Valley Air Basin (SVAB) and under the jurisdiction of the Yolo-Solano Air Quality Management District (YSAQMD). The federal Clean Air Act (CAA) and the California Clean Air Act (CCAA) require that federal and State ambient air quality standards (AAQS) be established, respectively, for six common air pollutants, known as criteria pollutants. The SVAB is designated nonattainment for the federal particulate matter 2.5 microns in diameter ($PM_{2.5}$) and the State particulate matter 10 microns in diameter (PM_{10}) standards, as well as for both the federal and State ozone standards.

Due to the nonattainment designations of the area, YSAQMD has developed plans to attain the State and federal standards for ozone and particulate matter. The plans include the 2013 Ozone Attainment Plan, the $PM_{2.5}$ Implementation/Maintenance Plan, and the 2012 Triennial Assessment and Plan Update. Adopted YSAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. Thus, by exceeding the YSAQMD's mass emission thresholds for operational or construction emissions of reactive organic gas (ROG), nitrogen oxide (NO_X), or PM_{10}, a project would be considered to conflict with or obstruct implementation of the YSAQMD's air quality planning efforts. The YSAQMD mass emission thresholds for operational and construction emissions are shown in Table 3 below.

Table 3
YSAQMD Thresholds of Significance

Pollutant	Construction Thresholds	Operational Thresholds
ROG	10 tons/yr	10 tons/yr
NOX	10 tons/yr	10 tons/yr
PM_{10}	80 lbs/day	80 lbs/day

Source: YSAQMD. Handbook for Assessing and Mitigating Air Quality Impacts. July 11, 2007.

During construction of the proposed project, heavy-duty equipment would operate on the project site. Exhaust emissions would be generated by the construction equipment. Construction worker trips and materials hauling truck trips would result in emissions as well.

Operational emissions associated with the proposed development would primarily consist of an increase in vehicle trips from residents traveling to and from the project site. Increased vehicle trips in the City of Winters would generate increased amounts of NO_X, ROG, and PM_{10}. Therefore, the aforementioned activities could result in increased emissions in the project vicinity above thresholds established by the YSAQMD.

Construction and operational emissions associated with the proposed project, in combination with other past, present, and reasonably foreseeable projects within the project region could either delay attainment of the standards or require adoption of additional controls on existing and future air pollution sources to offset emission increases. The increase in emissions associated with construction and operations of the proposed project would require further study to determine the significance of related impacts. Thus, the project could conflict with or obstruct implementation of the applicable air quality plan and result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under applicable federal and/or State ambient air quality standards. Based on the above, the proposed project could result in a ***potentially significant*** impact with regard to air quality.

Further analysis of the above impacts will be included in the Air Quality and Greenhouse Gas Emissions (including Energy) chapter of the Farmstead Subdivision Project EIR.

c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors would be the single-family residences located west of the project site, with the nearest single-family residence being located approximately 25 feet from the project site boundary.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and Toxic Air Contaminant (TAC) emissions. Project operations may contribute to localized CO emissions or include sources of TACs. Specifically, the proposed project could contribute to localized CO emissions through increased traffic levels on the project site and local roadways. While the proposed residential uses are not typically associated with any major sources of TAC emissions, the proposed project would involve operation of heavy-duty construction equipment on the project site throughout the duration of the construction activities, which would result in TAC emissions. Construction-related TAC emissions could affect the sensitive receptors located nearest to the project site. Given that operation and construction of the proposed project could result in localized CO and TAC emissions, respectively, further analysis of such emission sources is required.

Because the proposed project could involve emissions of localized CO and TACs associated with construction and operation, the project could expose existing sensitive receptors to substantial pollutant concentrations. Accordingly, impacts related to exposure of sensitive receptors to substantial pollutant concentrations could be ***potentially significant***.

Further analysis of the above impact will be included in the Air Quality and Greenhouse Gas Emissions (including Energy) chapter of the Farmstead Subdivision Project EIR.

d. Air pollutant emissions have the potential to adversely affect people. Emissions of principal concern include emissions leading to odors, emissions that have the potential to cause dust, emissions of criteria pollutants, or other pollutants associated with health concerns. Criteria pollutants and pollutants associated with health concerns have been discussed in sections "a" through "c" above. Therefore, the following discussion focuses on emissions associated with odors and dust.

Odors

According to the YSAQMD, common types of facilities that are known to produce odors include, but are not limited to, wastewater treatment facilities, chemical or fiberglass manufacturing, landfills, auto body shops, composting facilities, food processing facilities, refineries, dairies, and asphalt or rendering plants.[7] While offensive odors rarely inflict physical harm, the YSAQMD notes that odors can still generate considerable distress among the public because of their unpleasant nature, which in turn, potentially leads to citizen complaints to local governments and the YSAQMD. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on a number of variables, including: the nature of the odor source; the frequency of odor generation; the insensitivity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor. However, the proposed project is primarily a residential development, and, thus, would not introduce any odor-producing land uses. Additionally, the project site not located in the vicinity of any such existing or planned land uses.

Diesel fumes from construction equipment are often found to be objectionable; however, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per Section 8.20.070(B)(4) of the City's Municipal Code, and would likely only occur over portions of the improvement area at a time. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. Project construction would also be required to comply with all applicable YSAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors related to operation of construction equipment. Considering the short-term nature of construction activities, as well as the regulated and intermittent nature of the operation of construction equipment, construction of the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

The YSAQMD regulates objectionable odors through Rule 2.5 (Nuisance), which prohibits any person or source from emitting air contaminants or other material that result in any of the following: cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; endanger the comfort, repose, health, or safety of any such persons or the public; or have a natural tendency to cause injury or damage to business or property. Rule 2.5 is enforced based on complaints. If complaints are received,

[7] Yolo-Solano Air Quality Management District. *Handbook for Assessing and Mitigating Air Quality Impacts, Adopted July 11, 2007*. [pg. 14]. Available at: http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf. Accessed September 2021.

the YSAQMD is required to investigate the complaint, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications. Thus, although not anticipated, if odor complaints are made during construction of the project, the YSAQMD would ensure that such odors are addressed and any potential odor effects reduced to less than significant.

Dust

All projects within the YSAQMD are required to implement construction practices, such as a dust control program. The dust control program would ensure that water or dust palliatives would be applied to exposed surfaces, grading operations would not take place during periods of high winds, and construction-related trucks would be covered at the end of the day. In addition, the project would be required to comply with YSAQMD Rule 2.11, Particulate Matter Concentration, and Rule 2.19, Particulate Matter Process Emission Rate. Implementation of all applicable YSAQMD rules would ensure that construction of the proposed project would not result in substantial emissions of dust.

Following project construction, vehicles operating within the project site would be limited to paved areas of the site. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

Conclusion

For the aforementioned reasons, construction and operation of the proposed project would not result in emissions (such as those leading to odors and dust) that would affect a substantial number of people, and a ***less-than-significant*** impact would result.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	✖	☐	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	✖	☐	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	✖	☐	☐	☐
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	✖	☐	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	✖	☐	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	✖	☐	☐	☐

Discussion

a-d. Certain plant and wildlife species are considered to have special status if they are listed or proposed for listing under the federal or State Endangered Species Act, meet the definition of Rare or Endangered under CEQA, or are considered rare locally. In addition, nesting birds and raptors are protected under the federal Migratory Bird Treaty Act of 1918 (MBTA), which prohibits killing, possessing, or trading of migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA covers take of whole birds, parts of birds, and bird nests and eggs. Furthermore, the California Native Plan Society (CNPS) maintains a list of plant species native to the State that have low numbers, limited distribution, or are otherwise threatened with extinction. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA. According to the General Plan EIR, a number of plant and animal taxa with special status have geographic ranges encompassing the Winters planning area or have been observed in the project vicinity, according to occurrence records maintained by the California Natural Diversity Database (CNDDB).[8] As the proposed project would include development of the project site with 200 single-family residential units, 84 multi-family residential units, 135,000 sf of commercial uses across seven lots, 3.2 gross acres of open space and Drainage Channel, and 5.4 gross acres of parkland, should any special-status plant and/or wildlife species be present on-site or adjacent to the site, the project could potentially result in a substantial adverse effect to such species.

[8] City of Winters. City of Winters General Plan Environmental Impact Report. [pg. 157]. Available at: http://www.cityofwinters.org/community-dev-reports/. Accessed September 2021.

Riparian habitats are described as the land and vegetation that is situated along the bank of a stream or river. Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year. As previously discussed above, the easterly portion of the proposed project's open play lawn area in Lot D would serve as a water quality and detention basin for the proposed project, which would be sized to capture post-development flows within the project site. Collected runoff would be released to the project site's new 75-foot Drainage Channel, which would be located parallel to Timber Crest Road (see Figure 6). From the Drainage Channel, stormwater flows would be conveyed southward to a linear detention basin owned by PG&E. The PG&E linear detention basin extends south from SR 128 to a ditch along I-505, which flows over a concrete apron, down a steep slope, and into Putah Creek. Because the proposed project would indirectly discharge runoff to Putah Creek, further analysis would be required to ensure a substantial adverse effect to the riparian habitats along the creek do not occur. In addition, further analysis of on-site aquatic resources, such as the roadside ditch parallel to SR 128, would be required to ensure impacts do not occur to State or federally protected wetlands as a result of project implementation and operation.

Movement corridors or landscape linkages are usually linear habitats that connect two or more habitat patches, providing assumed benefits to the species by reducing inbreeding depression and increasing the potential for recolonization of habitat patches. As the project site is undeveloped and comprised of open grassland areas, the site could offer a linkage to the agricultural uses to the north for migratory wildlife. Furthermore, as previously noted, Putah Creek is located to the south of the project site, which could offer a movement corridor for fish species. Further analysis would be required to ensure the proposed project would not result in impacts to any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors or wildlife nurseries.

Based on the above, the proposed project could have a substantial adverse effect on sensitive or special-status species, riparian habitats or other sensitive natural habitats, federally or State-protected wetlands, or interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Therefore, the project could result in a ***potentially significant*** impact.

Further analysis of the above impacts will be included in the Biological Resources chapter of the Farmstead Subdivision Project EIR.

e. According to the General Plan EIR, mature trees provide important nesting and roosting habitat, which would be lost with tree removal.[9] Accordingly, Section 12.08.010 of the City's Municipal Code requires a property owner to submit an application to the City's Tree Commission in order to plant, move, remove, or replace a tree. Pursuant to the action taken by the Tree Commission, authority for such actions is granted to the property owner by the City Manager. The project site includes several trees along the site's northern, eastern, and southern property lines, which could require removal as part of project implementation. Therefore, further analysis would be required to ensue such actions are consistent with Section 12.08.010 of the City's Municipal Code.

[9] City of Winters. *City of Winters General Plan Environmental Impact Report*. [pg. 161]. Available at: http://www.cityofwinters.org/community-dev-reports/. Accessed September 2021.

Based on the above, the proposed project could conflict with a local policy or ordinance protecting biological resources. Therefore, the project could result in a ***potentially significant*** impact.

Further analysis of the above impact will be included in the Biological Resources chapter of the Farmstead Subdivision Project EIR.

f. The project site is located within the boundaries covered by the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (Yolo HCP/NCCP). The Yolo HCP/NCCP is a comprehensive, countywide plan that provides for the conservation of 12 sensitive species, and the natural communities and agricultural land on which they depend. The City is a participant in the Yolo HCP/NCCP and Chapter 18.12 of the City's Municipal Code sets forth the requirements with which development projects must comply in order to be consistent with the permits, regulations, and Avoidance and Minimization Measures established by the Yolo HCP/NCCP. Considering that the proposed project would involve the development of land within the boundaries of the Yolo HCP/NCCP, further analysis would be required to ensure the proposed project does not conflict with the provisions set forth by the Yolo HCP/NCCP.

Based on the above, the proposed project could conflict with the provisions of an adopted HCP/NCCP, or other approved local, regional, or State habitat conservation plan. Therefore, the project could result in a ***potentially significant*** impact.

Further analysis of the above impact will be included in the Biological Resources chapter of the Farmstead Subdivision Project EIR.

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	✖	☐	☐	☐
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	✖	☐	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	✖	☐	☐	☐

Discussion

a,b. The City of Winters General Plan does not identify any historical or archeological resource sites near the project site. However, according to the City's General Plan EIR, the Northwest Information Center of the California Historical Resources Information System (CHRIS) conducted a records search in 1991, which indicated the presence of three archaeological sites in the City's planning area.[10] Because of incomplete records, and limited archeological surveillance of the area, the Northwest Information Center suggested that additional field surveys should be completed prior to any development in the City. Therefore, the potential exists for previously unknown historic and/or archaeological resources to be uncovered during construction, which could result in a ***potentially significant*** impact.

Further analysis of the above impacts will be included in the Cultural and Tribal Cultural Resources chapter of the Farmstead Subdivision Project EIR.

c. Human remains are not known to be located in the project site. However, given the high density of cultural resource sites discovered throughout Yolo County, the possibility exists that unmarked burials may be discovered during ground-disturbing activities associated with the proposed project. One site, at an undetermined location in or near the present-day City, was historically identified as the Native American Indian village of "Liwai", and could contain projectile points, mortars and pestles, shells and human burial remains, according to Winter's General Plan EIR.[11] As such, human remains, including those interred outside of dedicated cemeteries, have the potential to be unearthed during ground-disturbing construction activities associated with the proposed project. As a result, a ***potentially significant*** impact could occur.

Further analysis of the above impact will be included in the Cultural and Tribal Cultural Resources chapter of the Farmstead Subdivision Project EIR.

[10] City of Winters. *City of Winters General Plan Environmental Impact Report*. [pg. 220]. Available at: http://www.cityofwinters.org/community-dev-reports/. Accessed September 2021.

[11] *Ibid*.

VI. ENERGY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	✖	☐	☐	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	✖	☐	☐	☐

Discussion

a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2019 California Green Building Standards Code (CALGreen Code) and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2019 CALGreen Code (CCR Title 24, Part 11) is a portion of the California Building Standards Code (CBSC), which became effective on January 1, 2020.[12] The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of electric vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance, or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy efficiency measures from the 2016 Building Energy Efficiency Standards. The 2019 Building Energy Efficiency Standards are in effect for building permit applications submitted after January 1, 2020.

[12] California Building Standards Commission. *California Green Building Standards Code*. Available at: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen. Accessed September 2021.

Energy reductions relative to previous Building Energy Efficiency Standards are achieved through various regulations, including requirements for the use of high-efficacy lighting, improved water heating system efficiency, and high-performance attics and walls. Under the current Building Energy Efficiency Standards, single-family homes built in 2020 must include photovoltaic (PV) generation, sized to meet the home's expected annual kilowatt-hour energy usage.[13] For nonresidential buildings, the most significant changes in compliance with the 2019 standards are in lighting design, alterations to a development's envelope, mechanical systems, and covered processes.[14]

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met by way of a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment. Given the scale of the proposed project, which would include subdivision of the project site to develop 200 single-family residential units on 36.7 gross acres, 84 multi-family residential units on 4.2 gross acres, 135,000 sf of commercial uses across seven lots totaling 12.4 gross acres, 3.2 gross acres of open space and Drainage Channel, and 5.4 gross acres of parkland, the temporary increase in energy use occurring during project construction could potentially result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. Therefore, further analysis would be required to ensure project construction does not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

Operational Energy Use

Following implementation of the proposed project, PG&E would provide electricity and natural gas to the project site. Energy use associated with operation of the proposed project would be typical of single-family residential uses and commercial uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric- or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by resident commutes, employee commutes, patrons to the project site, and the movement of goods. Similar to construction-related activities associated with the proposed project, the scale of the project could potentially result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies as a result of the new residents potentially generated by the project's residential component and the proposed commercial uses. In addition, increased transportation energy use could result from employee commutes, patrons to the project site, and the movement of goods. Therefore, further analysis would be required to ensure project

[13] California Energy Commission. *2019 Building Energy Efficiency Standards: Frequently Asked Questions*. Available at: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf. Accessed June 2021.

[14] California Energy Commission. *California Energy Commission 2019 Building Energy Efficiency Standards What's New for Nonresidential*. Available at: https://www.energy.ca.gov/media/3455. Accessed June 2021.

operations do not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

Conclusion

Based on the above, construction and operation of the proposed project could result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, a ***potentially significant*** impact would occur.

Further analysis of the above impacts will be included in the Air Quality and Greenhouse Gas Emissions (including Energy) chapter of the Farmstead Subdivision Project EIR.

VII. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	✖	☐
ii. Strong seismic ground shaking?	☐	☐	✖	☐
iii. Seismic-related ground failure, including liquefaction?	☐	✖	☐	☐
iv. Landslides?	☐	✖	☐	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	✖	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	✖	☐	☐
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	✖	☐	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✖
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	✖	☐	☐	☐

Discussion

ai-ii. The project site is not located within the boundaries of an Earthquake Fault Zone, as designated pursuant to the Alquist-Priolo Earthquake Fault Zoning Act.[15] The nearest Earthquake Fault Zone is catalogued as the Green Valley Fault Zone, located approximately 17 miles southeast of the City. The project site does not contain any known faults or trace lines. Thus, fault rupture hazard is not a significant geologic hazard at the site.

Based on the historical seismic activity throughout the State, the project site is considered subject to ground shaking risk and related effects. However, the CBSC provides minimum standards to ensure that the proposed structure would be designed using sound engineering practices and appropriate engineering standards for the seismic area in which the project site is located. Projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage, but with some non-structural damage; and 3) resist major earthquakes without collapse, but with some structural, as well as non-structural, damage. Although conformance with the CBSC does not guarantee that substantial structural damage would not occur in the event of a maximum magnitude earthquake, conformance with the CBSC can reasonably be assumed to ensure that the proposed structure would be survivable, allowing occupants to safely evacuate in the event of a major earthquake.

[15] California Geological Survey. *Earthquake Zones of Required Investigation.* Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed September 2021.

Therefore, a ***less-than-significant*** impact would occur related to seismic rupture of a known earthquake fault or strong seismic ground shaking.

aiii,aiv, c,d. Based on a search of the California Department of Agriculture's Web Soil Survey, the soils on the project site were identified as Brentwood silty clay loam, and Rincon silty clay loam.[16] Both soil types are considered well-draining, and are not susceptible to flooding or ponding. The proposed project's potential effects related to expansive soils, liquefaction, landslides, lateral spreading, and subsidence/settlement are discussed in detail below.

Expansive Soils

Expansive soils can undergo significant volume changes with changes in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted. If structures are underlain by expansive soils, foundation systems must be capable of withstanding the potential damaging movements of the soil.

Based on the results of the Web Soil Survey, the on-site soils have a shrink-swell potential of 1.00, with 1.00 representing the greatest limitation.[17] Should the proposed commercial or residential building foundations be placed upon the identified expansive soils, a potentially significant impact could occur.

Liquefaction

Liquefaction is a phenomenon in which granular material is transformed from a solid state to a liquefied state as a consequence of increased pore-water pressure and reduced effective stress. Increased pore-water pressure is induced by the tendency of granular materials to densify when subjected to cyclic shear stresses associated with earthquakes.

Per the California Geologic Survey, the project site is not located within a designated seismic hazard zone for liquefaction.[18] In addition, because the on-site soils are known to be well-draining, the risk for liquefaction on the project site is low. Nonetheless, without further site-specific evaluation, a potentially significant impact related to liquefaction could occur with implementation of the proposed project.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. The topography of the project site is generally flat and, per the California Geologic Survey, the site is not located within a designated seismic hazard zone for landslides.[19] Therefore, impacts related to landslide hazards associated with the proposed project would be less than significant.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the

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16 United States Department of Agriculture, Natural Resources Conservations Service. *Web Soil Survey*. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed September 2021.

17 *Ibid*.

18 California Geological Survey. *Earthquake Zones of Required Investigation.* Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed September 2021.

19 *Ibid.*

bottom of the exposed slope. The project site is not located near any open faces that would be considered susceptible to lateral spreading. Therefore, impacts related to lateral spreading associated with the proposed project would be less than significant.

Subsidence/Settlement

Subsidence is the settlement of soils of very low density generally from either oxidation of organic material, or desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years.

As noted above, the on-site soils are known to be expansive and, thus, could be subject to subsidence and/or settlement. As a result, without further site-specific evaluation, a potentially significant impact related to subsidence/settlement could occur with implementation of the proposed project.

Conclusion

Based on the above, the proposed project is not anticipated to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides or lateral spreading. However, without the implementation of mitigation, a ***potentially significant*** impact could occur related to liquefaction, subsidence/settlement, and expansive soils, as defined in Table 18-1B of the Uniform Building Code (1994).

Mitigation Measure(s)

Implementation of the following mitigation measure would ensure the above potential impact is reduced to a *less-than-significant* level.

VII-1. *Prior to issuance of grading permits, a design-level Geotechnical Engineering Investigation shall be prepared in order to evaluate the proposed project's potential effects related to geologic hazards, including, but not limited to, expansive soils, liquefaction, and subsidence/settlement. The City Engineer shall verify that all geotechnical recommendations specified in the design-level Geotechnical Engineering Investigation prepared for the project are properly incorporated in the project design.*

b. Issues related to erosion are discussed in Section X, Hydrology and Water Quality, of this IS/MND. As noted therein, the proposed project would not result in substantial soil erosion or the loss of topsoil. Thus, a ***less-than-significant*** impact would occur.

e. The proposed project would connect to extended or existing sewer infrastructure, and, thus, would not require the use of septic systems. Therefore, ***no impact*** would occur related to having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

f. The potential exists that previously unrecorded subsurface paleontological or unique geological resources may be discovered during ground disturbing activities associated with construction of the proposed project, should such resources be located within the project footprint. Therefore, the proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, and a ***potentially significant*** impact could occur.

Further analysis of the above impact will be included in the Cultural and Tribal Cultural Resources chapter of the Farmstead Subdivision Project EIR.

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	✖	☐	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	✖	☐	☐	☐

a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. Because construction and operation of the proposed project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, impacts related to GHG emissions and global climate change could be cumulatively considerable and considered ***potentially significant***.

Further analysis of the above impacts will be included in the Air Quality and Greenhouse Gas Emissions (including Energy) chapter of the Farmstead Subdivision Project EIR.

IX. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	✖	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	✖	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	✖	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	✖
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	✖
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	☐	☐	✖	☐

Discussion

a. A significant hazard to the public or the environment could result from the routine transport, use, or disposal of hazardous materials. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. As the proposed project would be primarily residential in nature, the proposed project would not be considered industrial. Operations of the proposed residences, commercial uses, and parkland would not include any activities that would involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. During operations, hazardous material use would be limited to landscaping products such as fertilizer, pesticides, as well as typical commercial and maintenance products (cleaning agents, degreasers, paints, batteries, and motor oil). Proper handling and usage of such materials in accordance with label instructions would ensure that adverse impacts to human health or the environment would not result. Thus, operations of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Construction activities associated with implementation of the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. However, the project contractor would be required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Pursuant to California Health and Safety Code Section 25510(a), except as

provided in subdivision (b),[20] the handler or an employee, authorized representative, agent, or designee of a handler, shall, upon discovery, immediately report any release or threatened release of a hazardous material to the unified program agency (in the case of the proposed project, Yolo County Environmental Health Division [YCEHD]) in accordance with the regulations adopted pursuant to Section 25510(a). The handler or an employee, authorized representative, agent, or designee of the handler shall provide all State, City, or County fire or public health or safety personnel and emergency response personnel with access to the handler's facilities. In the case of the proposed project, the contractors are required to notify the YCEHD in the event of an accidental release of a hazardous material, who would then monitor the conditions and recommend appropriate remediation measures.

Based on the above, the proposed project would not create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous materials. Therefore, a ***less-than-significant*** impact would occur.

b. A development project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment should a site contain potential Recognized Environmental Conditions (RECs) that are not properly addressed prior to project implementation. A REC indicates the presence or likely presence of any hazardous substances in, on, or at a property due to any release into the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment.[21]

As previously discussed, the project site is currently undeveloped and devoid of any structures. As such, RECs typically associated with older buildings such as asbestos-containing materials and/or lead-based paint or RECs associated with vehicles and/or equipment stored in structures such as total petroleum hydrocarbons (TPH) from diesel, motor oil, or hydraulic oil would not be present on-site. However, the project site has been used for farming for many decades. The site currently serves as an agricultural field used for annual row crops. Therefore, the project site could potentially contain organochlorine pesticides (OCPs), which are a group of chlorinated compounds used as pesticides. OCPs can enter the environment after pesticide applications and can adhere to the soil and air, increasing the chances of high persistence in the environment. Exposure to pesticides has been concluded to increase the risk of hypertension, cardiovascular disorders, and other health-related problems in humans.[22] Should the project site contain OCPs as a result of the site's historic agricultural uses, construction workers associated with project implementation as well as future residents and patrons could be exposed to such hazards.

In addition, according to the General Plan EIR, the City relies on groundwater for its domestic water supply. As such, the previous and current uses of the project site could have necessitated that a water supply well be located on-site for irrigation purposes. Private wells carry the potential to be contaminated by both naturally occurring sources

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20 Subdivision (a) does not apply to a person engaged in the transportation of a hazardous material on a highway that is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code.

21 ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* 2013.

22 National Center for Biotechnology Information, U.S. National Library of Medicine, National Institutes of Health. *Organochlorine pesticides, their toxic effects on living organisms and their fate in the environment*. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5464684/. Accessed September 2021.

and by human activities, with contaminants potentially released into the environment through ground-disturbing construction activities in the event the on-site wells are disrupted.[23] In the event that such a well is located within the property, proper abandonment of the well would need to occur in accordance with the standards set forth in California Department of Water Resources Bulletin 74-81.[24] As discussed in Part III of Bulletin 74-81, the top of the well or well casing would need to be provided with a cover that is secured by a lock or by other means to prevent its removal without the use of equipment or tools in order to prevent unauthorized access, a safety hazard to humans and animals, and/or illegal disposal of wastes in the well. The cover would be required to be watertight where the top of the well casing or other surface openings to the well are below ground level, such as in a vault or below known levels of flooding. The abandoned well would be required to be destroyed. The objective of destruction is to restore as nearly as possible those subsurface conditions which existed before the well was constructed, taking into account changes, if any, which have occurred since the time of construction. Destruction of a well must consist of the complete filling of the well in accordance with Section 23 of Part III of Bulletin 74-81. Without proper abandonment of any potential on-site wells, a significant impact could occur.

Based on the above, the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and the project could result in a ***potentially significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would ensure the above potential impact is reduced to a *less-than-significant* level.

IX-1. *Prior to initiation of ground-disturbing activities associated, the project applicant shall complete testing of on-site soils and groundwater. The testing shall be tested for organochlorine pesticides (OCPs) in accordance with U.S. Environmental Protection Agency (USEPA) Method 8081A. Soil determined to be non-hazardous through analytical testing shall be transported and disposed of at a permitted Class II non-hazardous facility with established Waste Discharge Requirements (WDRs) with the Central Valley Regional Water Quality Control Board (RWQCB). Groundwater determined to be non-hazardous through analytical testing shall be transported and disposed of at a permitted non-hazardous treatment facility. Non-hazardous waste shall be transported to disposal under a non-hazardous waste manifest.*

In the event that soil and groundwater are determined to be hazardous by exceeding the USEPA Regional Screening Level for residential exposure scenarios, the soil and/or groundwater shall be transported and disposed of at a Class I facility permitted by the California Department of Toxic Substances Control. Hazardous waste shall be transported to disposal by

[23] Centers for Disease Control and Prevention. *Overview of Water-related Diseases and Contaminants in Private Wells*. Available at: https://www.cdc.gov/healthywater/drinking/private/wells/diseases.html. Accessed July 2021.

[24] California Department of Water Resources. *California Well Standards, Combined*. Available at: https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Standards/Combined-Well-Standards. Accessed September 2021.

a licensed hazardous waste hauler under a uniform hazardous waste manifest.

The results of soil and/or groundwater sampling and analysis, as well as verification of proper remediation and disposal, shall be submitted to the City's Community Development Department for review and approval.

IX-2. Prior to Improvement Plan approval, the project applicant shall contract a licensed geologist with the State of California to complete a site reconnaissance for any on-site wells. In the event on-site wells are not identified, no further mitigation shall be required. If an on-site well is identified, the project applicant shall hire a licensed well contractor to obtain a well abandonment permit from the Yolo County Environmental Health Division (YCEHD) for all on-site wells and properly abandon the on-site wells, pursuant to Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III). Verification of abandonment shall be submitted for review and approval to the City's Community Development Department.

c. The nearest school to the project site is Winters Joint Union High School, located 0.37 mile to the west of the site. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and a ***less-than-significant*** impact would occur.

d. The proposed project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[25] Therefore, the project would not create a significant hazard to the public or the environment, and ***no impact*** would occur.

e. The nearest airport to the project site is Yolo County Airport, which is located approximately six miles to the northeast of the site. As such, the proposed project would not be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and the project would not result in a safety hazard or excessive noise for people residing or working in the project area. Thus, ***no impact*** would occur.

f. Yolo County defines the project site location as Zone 59 for the Emergency Preparedness Evacuation plan.[26] Zone 59 comprises two rally points: 613 Railroad Avenue, which is located just east of the site, and St. Anthony Church, located further west of the site. The evacuation route is defined as SR 128 just south of the project site. During construction of the proposed project, all construction equipment would be staged on-site so as to prevent obstruction of local and regional travel routes in the City that could be used as evacuation routes during emergency events (e.g., SR 128). During project operations, the proposed project would not substantially alter existing circulation systems in the surrounding area, and SR 128 would continue to be able to serve as an evacuation route during emergency events.

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[25] California Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: https://dtsc.ca.gov/dtscs-cortese-list. Accessed June 2021.

[26] Yolo County. *Evacuation Zone 59*. Available at: https://www.yolocounty.org/home/showpublisheddocument/58533/636952539156700000. Accessed September 2021.

Based on the above, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the project would result in a ***less-than-significant*** impact.

g. Areas at risk for wildland fires are typically in or on the edge of undeveloped areas with large amounts of combustible vegetation. The project site is surrounded by existing development to the west and south. Furthermore, according to the California Department of Forestry and Fire Protection's (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within a State or local Very High or High Fire Hazard Severity Zone (FHSZ).[27] Additional analysis related to wildfire is included in Section XX, Wildfire, of this Initial Study.

Based on the above, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and a ***less-than-significant*** impact would occur.

[27] California Department of Forestry and Fire Protection. *Fire Hazard Severity Zones Maps*. Available at: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/. Accessed September 2021.

X. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	✖	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	✖	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	✖	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	✖	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	✖	☐
iv. Impede or redirect flood flows?	☐	✖	☐	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	✖	☐	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	✖	☐

Discussion

a. The following discussion provides a summary of the proposed project's potential to violate water quality standards/waste discharge requirements or otherwise degrade water quality during construction and operation.

Construction

Project construction activities such as grading, excavation, and trenching for site improvements would result in the disturbance of on-site soils. The exposed soils have the potential to affect water quality in two ways: 1) suspended soil particles and sediments transported through runoff; or 2) sediments transported as dust that eventually reach local water bodies. Spills or leaks from heavy equipment and machinery, staging areas, or building sites also have the potential to enter runoff. Typical pollutants include, but are not limited to, petroleum and heavy metals from equipment and products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products could result in water quality degradation if runoff containing the sediment or contaminants should enter receiving waters in sufficient quantities. Impacts from construction-related activities would generally be short-term.

Water quality degradation is regulated by the federal NPDES Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and non-point discharges. In California, the NPDES permitting program is administered by the

SWRCB through nine Regional Water Quality Control Boards (RWQCBs). The RWQCBs regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. The City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's General Construction Permit requires a Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the site. A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project. Because the proposed project would disturb greater than one acre of land, the proposed project would be subject to the requirements of the State's General Construction Permit. Compliance with the General Construction Permit would ensure that water quality would not be adversely affected during project construction.

Operation

After project completion, impervious surfaces on the project site could contribute incrementally to the degradation of downstream water quality during storm events. During the dry season, vehicles and other urban activities may release contaminants onto the impervious surfaces, where they would accumulate until the first storm event. During the initial storm event, or first flush, the concentrated pollutants would be transported via stormwater runoff from the site to the stormwater drainage system and eventually a downstream waterway. Typical urban pollutants that would likely be associated with the proposed project include sediment, household pesticides, oil and grease, nutrients, metals, bacteria, and trash. In addition, stormwater runoff could cause soil erosion if not properly addressed and provide a more lucrative means of transport for pollutants to enter the waterways.

The City of Winters Public Works Department maintains Improvement Standards and Standard Drawings which serve to regulate the design for the construction of streets, highways, drainage, sewerage, lighting, water supply facilities, and related public improvements, and set guidelines for all private projects which involve drainage, grading, erosion control, and related improvements.[28] Section 9, Storm Drainage Design, of the Improvement Standards and Standard Drawings establishes Low Impact Development (LID) technologies, Best Management Practices (BMPs), and minimum criteria for detention systems. Implementation of all applicable LID measures and BMPs would reduce pollutants in urban runoff to the maximum extent practicable.

The easterly portion of the open play lawn area would also serve as a water quality and detention basin for the proposed project, which would be sized to capture post-development flows within the project site. Collected runoff would then be released to the project site's new 75-foot Drainage Channel, which would be located parallel to Timber Crest Road. From the Drainage Channel, stormwater flows would be conveyed southward by way of a new upsized culvert under SR 128 to the stormwater channel owned by PG&E. The PG&E stormwater channel extends south from SR 128 to a ditch along I-505, which flows over a concrete apron, down a steep slope, and into Putah Creek. The proposed stormwater management system would be designed in accordance with the City's Improvement Standards and Standard Drawings, and would ensure that water quality in Putah Creek would not be adversely affected.

[28] City of Winters Public Works Department. *Improvement Standards and Standard Drawings*. April 2016.

In addition, Chapter 13.08.030 of the City's Municipal Code requires operation of commercial and industrial facilities to comply with any required NPDES permit or waste discharge requirements and demonstrate coverage through creation of a SWPPP. According to the City's Municipal Code, storm water, ground water, rain water, street drainage, subsurface drainage, or yard drainage shall not be discharged through direct or indirect connections to the wastewater (sanitary) sewer. Therefore, discharge from the commercial component of the proposed project would be regulated accordingly.

Conclusion

Based on the above, the proposed project would adhere to all applicable permits and regulations mandated by the City and State. Thus, the proposed project would not result in any substantial erosion or siltation, violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality during construction or operation, and a ***less-than-significant*** impact would occur.

b,e. Although the City holds an entitlement to divert water from the Putah Creek, groundwater is the City's main source of municipal and industrial supply within the General Plan Boundary. According to the City's 2006 Water Master Plan, groundwater is pumped via five wells located in the downtown, northwestern, south, southwestern, southeastern regions of the City.[29]

Sources of groundwater recharge in the vicinity of Winters primarily include subsurface inflow from the west and north, deep percolation from precipitation and seepage from Putah Creek and Dry Creek. The proposed project would incorporate pervious open space and landscaped area where groundwater recharge would continue to occur following implementation of the proposed project. Nonetheless, it is noted that the project site has not been identified as a significant recharge area, and has been planned for development by the City.

In 2008, a Municipal Services Review and Sphere of Influence Study was prepared for the City of Winters. As noted therein, current groundwater supply can meet demands at General Plan buildout with no risk of overdraft.[30]

Therefore, the proposed project would result in a ***less-than-significant*** impact with respect to substantially depleting groundwater supplies or interfering substantially with groundwater recharge and would not conflict with an applicable groundwater management plan or water quality control plan.

ci-iii. Development of the proposed project would introduce impervious surfaces to the project site, which would alter the existing drainage pattern of the site. However, as discussed above, on-site stormwater runoff would be guided into an on-site bioretention basins for treatment and storage prior to discharge to the City's stormwater system. The proposed stormwater system would be required to maintain peak runoff flows such that they do not exceed pre-project flows.

Furthermore, stormwater runoff associated with the site would be required to comply with all City standards. As such, the project would not significantly increase stormwater flows into the existing system. Therefore, the proposed project would not substantially alter the

[29] City of Winters. *Water Master Plan*. December 2006.
[30] Yolo County LAFCo. *City of Winters Municipal Services Review and Sphere of Influence Study*. September 26, 2008.

existing drainage pattern of the site or area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Thus, a ***less-than-significant*** impact would occur.

c.iv,d. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map number 06113C0564G, the project site is located within Zone AO, which is identified as a Special Flood Hazard Area.[31] Zone AO is defined as areas having flood depths of one to three feet, with an average depth of two feet.

A Conditional Letter of Map Revision (CLOMR) Application has been submitted to revise and update the FEMA map for the project area. Development of the proposed project would require the control of flooding from the north and east, and the proposed project would involve earthwork to raise the foundations above the proposed on-site flood levels. Such improvements would alter the hydrology of the area and effectively lift the project site out of the floodplain.

Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. Due to the project site's substantial distance from the coast, the proposed project would not be exposed to flooding risks associated with tsunamis. Seiches do not pose a risk to the proposed project, as the project site is not located adjacent to any closed body of water. The nearest body of water, Lake Berryessa, is located over seven miles west of the project site.

The proposed project would not pose a risk related to the release of pollutants due to project inundation due to tsunami or seiche. However, the project, as proposed, would involve development within a floodplain. Without approval of a Letter of Map Revision from FEMA, a ***potentially significant*** impact related to flood hazards could result.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

X-1. *Prior to occupancy, the project applicant shall ensure that the conditions specified in the Federal Emergency Management Agency (FEMA) Conditional Letter of Map Revision have been met and a Final Letter of Map Revision issued by FEMA. Evidence thereof shall be submitted to the City's Community Development Department for review and approval.*

[31] Federal Emergency Management Agency. *Flood Insurance Rate Map 06113C0564G.* Effective June 18, 2010.

XI. LAND USE AND PLANNING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	✖	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	✖	☐	☐	☐

Discussion

a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community, or isolate an existing land use. Existing land uses in the project vicinity include a single-family residential development to the west and south. The proposed project would be consistent with the type and intensity of existing residential uses to the west and south, and would provide roadway connections to surrounding properties. As such, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.

b. The General Plan Guidelines published by the Governor's Office of Planning and Research defines consistency as, "An action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment." Therefore, the standard for analysis used in this Initial Study is based on general agreement with the policy language and furtherance of the policy intent (as determined by a review of the policy context). The determination that the project is consistent or inconsistent with the City of Winters General Plan policies or other plans and policies is ultimately the decision of the City of Winters City Council. Furthermore, although CEQA analysis may identify some areas of general consistency with City policies, the City has the ability to impose additional requirements or conditions of approval on a project, at the time of its approval, to bring a project into more complete conformance with existing policies.

The proposed project would require a GPA to amend the project site's existing General Plan land use designations to increase the LR land use designation from 33.7 acres to 37.6 acres, add a 4.2-acre HR land use designation, reduce the NC land use designation from 14.7 acres to 12.4 acres, and reduce the OS land use designation from 13.5 acres to 7.7 acres. In addition, the project would require a Rezone to add a PD overlay zone to the entirety of the project site, reduce the R-1 zone from 33.7 acres to 22.6 acres, add a 15-acre R-2 zone, add a 4.2-acre R-4 zone, reduce the C-1 zone from 14.7 acres to 12.4 acres, and reduce the O-S zone from 13.5 acres to 7.7 acres. Given the number of alterations to the project site's existing land use designations and zoning districts that would be necessary in order to implement the proposed project's residential, commercial, and parkland components, further analysis would be required to ensure such discretionary actions facilitate development that is consistent with all applicable General Plan policies and other regulations adopted for the purpose of avoiding or mitigating environmental effects.

Based on the above, the proposed project could cause a significant environmental impact due to conflicts with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, a ***potentially significant*** impact could occur.

Further analysis of the above impact will be included in the Land Use and Planning & Population and Housing chapter of the Farmstead Subdivision Project EIR.

XII. MINERAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	✖	☐
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	✖	☐

Discussion

a,b. The City's General Plan does not designate or identify any known mineral resources within the City of Winters. However, Yolo County's 2030 Countywide General Plan recognizes 28,000 acres of land within the County as containing State mineral resources. The project site is not located on or adjacent to any such lands identified to contain State mineral resources. Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Thus, a ***less-than-significant*** impact would occur.

XIII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	✖	☐	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	✖	☐	☐	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖

Discussion

a,b. While the project site currently serves as an undeveloped agricultural field used for annual row crops, the site is located within the City limits and existing surrounding land uses include a single-family residence with associated outbuildings immediately to the east, across from Timber Crest Road; a fueling station and fast-food restaurant located further to the east; a single-family residence with associated outbuildings immediately to the south, across from SR 128; a single-family residential neighborhood located further to the south; and a fueling station, grocery store, dental office, and a single-family residential neighborhood located to the west. The nearest existing sensitive receptors would be the single-family residences located west of the project site, with the nearest single-family residence being located approximately 25 feet from the project site boundary.

The proposed project would include subdivision of the project site to develop 200 single-family residential units, 84 multi-family residential units, 135,000 sf of commercial uses across seven lots, 3.2 gross acres of open space and Drainage Channel, and 5.4 gross acres of parkland. As such, construction-related activities associated with the proposed project would result in a temporary increase in ambient noise and groundborne vibration levels from the use of heavy equipment. Such temporary increases in noise and groundbourne vibration levels could exceed established noise and vibration standards at sensitive receptors in the project vicinity. Further analysis would be required to ensure such impacts do not occur.

Based on the above, the proposed project could result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies and/or excessive groundborne vibration or groundborne noise levels. Therefore, the project could result in a ***potentially significant*** impact.

Further analysis of the above impacts will be included in the Noise chapter of the Farmstead Subdivision Project EIR.

c. The nearest airport to the project site is Yolo County Airport, which is located approximately six miles to the northeast of the site. As such, the proposed project would not be located within the vicinity of a private airstrip or an airport land use plan or, where

such a plan has not been adopted, within two miles of a public airport or public use airport, and the project would not expose people residing or working in the project area to excessive noise levels. Thus, ***no impact*** would occur.

XIV. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	✖	☐	☐	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

Discussion

a. The proposed project would directly induce population growth in the area as a result of the construction of 200 units of single-family housing and up to 84 units of multi-family housing. In addition, the project would include the development of commercial properties at the southern portion of the project site.

Because the City's General Plan has planned for development on the project site, the General Plan EIR has generally analyzed a portion of the predicted growth associated with the proposed project. However, the proposed project would involve a GPA and Rezone to rearrange land uses and allow development at the proposed intensity. Specifically, the proposed project would include development at a greater density for the multi-family housing component than what was anticipated by the General Plan and evaluated in the General Plan EIR. Thus, the proposed project could result in a direct population increase in excess of what was previously planned by the City.

It should be noted that population growth itself does not constitute an environmental impact; rather, increased demands on the physical environment resulting from increases in population are considered environmental impacts. Physical environmental effects associated with development of the proposed project area are evaluated throughout this Initial Study, and will be further discussed in the Farmstead Subdivision EIR.

Based on the above, the proposed project could result in a ***potentially significant*** impact related to inducing substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).

Further analysis of the above impact will be included in the Air Quality and Greenhouse Gas Emissions (including Energy), Public Services and Utilities, Transportation, and Statutorily Required Sections chapters of the Farmstead Subdivision EIR.

b. The project site is currently vacant and devoid of any habitable structures. As such, the proposed project would not displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere. Therefore, ***no impact*** would occur.

XV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	✖	☐	☐	☐
b. Police protection?	✖	☐	☐	☐
c. Schools?	✖	☐	☐	☐
d. Parks?	☐	☐	✖	☐
e. Other Public Facilities?	✖	☐	☐	☐

Discussion

a,b,c, e. The proposed project would include the development of a total of 284 residential units and, therefore, would result in an increase in population in the City. As a result, implementation of the project could generate an increased demand for fire protection, police protection, schools, or other public facilities. Thus, a ***potentially significant*** impact could occur.

Further analysis of the above impact will be included in the Public Services and Utilities chapter of the Farmstead Subdivision EIR.

d. Issues related to parks and recreational facilities are discussed in Section XVI, Recreation, of this IS/MND. As noted therein, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities, the construction of which could cause significant environmental impacts. Thus, a ***less-than-significant*** impact would occur.

XVI. RECREATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	✖	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	✖	☐

Discussion

a,b. The proposed project would include the development of a 5.4-acre park at the eastern portion of the project site, and the dedication of one acre of open space along the northern project site boundary. Because the proposed project includes the incorporation of parkland and recreational open space, the proposed project would not require the expansion of any existing recreational facilities in the project region.

The City of Winters General Plan establishes a parkland ratio of five acres per 1,000 residents. Given an average of 2.8 persons per residential unit, the proposed project is anticipated to generate approximately 796 new residents. Thus, the 5.4-acre park for the 796 new residents would exceed the City's parkland requirement.

While the project would include the construction of a new park facility, the physical effects associated with construction of such has been evaluated throughout this Initial Study and will be further evaluated in the Farmstead Subdivision Project EIR.

Therefore, the proposed project would have a ***less-than-significant*** impact related to increasing the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or requiring the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

XVII. TRANSPORTATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	✖	☐	☐	☐
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	✖	☐	☐	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	✖	☐	☐	☐
d. Result in inadequate emergency access?	✖	☐	☐	☐

Discussion

a. The proposed project would include several roadway and frontage improvements, as well as a new network of bicycle and pedestrian trails. The increase in population associated with the proposed project would subsequently generate additional vehicle trips on local roadways. The addition of project-generated traffic has the potential to conflict with a program, plan, ordinance, or policy addressing the circulation system. In addition, the project-generated vehicle traffic could result in the exceedance, either individually or cumulatively, of a level of service standard established by the City's General Plan. The increase in population would also increase the demand for bicycle, pedestrian, and transit facilities. Further evaluation is required in order to assess whether adequate capacity exists to support the additional demand for such facilities.

Based on the above, the project could result in a ***potentially significant*** impact related to conflicting with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Further analysis of the above impact will be included in the Transportation chapter of the Farmstead Subdivision Project EIR.

b. Per Section 15064.3 of the CEQA Guidelines, analysis of vehicle miles travelled (VMT) attributable to a project is considered the most appropriate measure of transportation impacts for CEQA purposes. Other relevant considerations may include the effects of the project on transit and non-motorized travel.

The proposed project would generate new vehicle trips associated with the proposed residences as well as the commercial components. The portion of trips that would occur between the residences and commercial uses within the site would likely be shorter than the regional average trip length. However, should the new commercial uses attract visitors from outside of the City, trip lengths associated with such could be longer than the regional average. In addition, because the proposed project would involve development at a different density than what was anticipated for the site by the General Plan, the associated number of vehicle trips has the potential to be different from what was previously planned for the project site. Given the increase in vehicle trips associated with the proposed project, as well as the variation in vehicle trip lengths, a ***potentially significant*** impact related to VMT could occur.

Further analysis of the above impact will be included in the Transportation chapter of the Farmstead Subdivision Project EIR.

c,d. Primary site access would be provided by way of two new roads, which would be extended into the project site from SR 128. The project site would also be accessible through three ingress and egress points extended from the west. In addition, an Emergency Vehicle Access (EVA) would be provided at the northern portion of the site by way of a new connection of Street F to Walnut Lane. Internal circulation would be provided by way of extensions to existing roadways as well as the construction of new roadways.

Considering the project site includes several ingress and egress points, emergency access is expected to be acceptable. In addition, roadway hazards are not anticipated. Nonetheless, the proposed increase in development intensity through implementation of the proposed project could result in an associated increase in traffic-related hazards or affect emergency access in the project area.

Without further evaluation, the proposed project could result in a ***potentially significant*** impact related to an increase in hazards from design features or incompatible uses, or inadequate emergency access to the project.

Further analysis of the above impact will be included in the Transportation chapter of the Farmstead Subdivision Project EIR.

XVIII. TRIBAL CULTURAL RESOURCES.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	✖	☐	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	✖	☐	☐	☐

Discussion

a,b. As discussed in Section V, Cultural Resources, of this Initial Study, the proposed project is recommended to complete additional field surveys by the Northwest Information Center due to a lack complete records. In addition, on May 1, 2019 an NAHC Sacred Lands File search was requested. Per the NAHC Sacred Lands File, sacred sites were identified in the vicinity of the project site.

In compliance with Assembly Bill (AB) 52 (Public Resources Code [PRC] Section 21080.3.1), a project notification letter was distributed to Tribal Historic Preservation Officer Yvonne Perkins of the Yocha Deha Wintun Nation on September 27, 2021. On October 15, 2021, the Yocha Dehe Wintun Nation initiated consultation and requested a site visit. Consultation with the City is underway. Additionally, in compliance with SB 18, consultation letters have been sent out to several Native American tribes identified by the Native American Heritage Commission as having traditional lands or cultural places located within the Winter's General Plan boundaries.

Although the project site has been previously disturbed through agricultural use, based on the identified tribal sacred lands in the project vicinity, tribal cultural resources have the potential to occur within the site. Therefore, the possibility exists that development of the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource if previously unknown tribal cultural resources are uncovered during grading or other ground-disturbing activities. Thus, a ***potentially significant*** impact to tribal cultural resources could occur.

Further analysis of the above impact will be included in the Cultural and Tribal Cultural Resources chapter of the Farmstead Subdivision Project EIR.

XIX. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	✖	☐	☐	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	✖	☐	☐	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	✖	☐	☐	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	✖	☐	☐	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	✖	☐	☐	☐

Discussion

a-c. The proposed project would include on-site water, sanitary sewer, and stormwater improvements, which would connect to the existing infrastructure in the project vicinity. The implementation of the proposed residential and commercial uses on the project site would result in an increase in demand for potable water, wastewater treatment, electric power, natural gas, and telecommunication infrastructure.

Given that the project site is located adjacent to an existing residential subdivision, such utility conveyance infrastructure (i.e., water lines, natural gas lines, electricity lines) exists in the project vicinity. However, implementation of the proposed project would occur at an increased development intensity compared to what was originally anticipated for the project site. Therefore, the increase in demand for utilities was not previously anticipated by the City nor included in regional planning efforts, and further evaluation is required to quantify the available conveyance capacity of existing infrastructure.

Similarly, the proposed project could result in an increased water demand and wastewater treatment demand in excess of what has been previously anticipated for the site. Thus, the sufficiency of water supply and the capacity of the wastewater treatment provider require further evaluation.

In addition, the increase in impervious surface area that would occur with implementation of the proposed project would result in increased demand for stormwater drainage facilities. The easterly portion of the open play lawn area in Lot D would serve as a water quality and detention basin for the proposed project, which would be sized to capture post-development flows within the project site. However, following detention at the on-site basin, or during large storm events wherein stormwater cannot be entirely accommodated by the basin, stormwater would flow into existing City drainage infrastructure and/or Putah

Creek. Therefore, additional analysis is required in order to evaluate the capacity of the existing and proposed stormwater conveyance facilities.

Based on the above, implementation of the proposed project could result in a ***potentially significant*** impact related to new or expanded utilities, water supply, or wastewater treatment capacity.

Further analysis of the above impacts will be included in the Public Services and Utilities chapter of the Farmstead Subdivision EIR.

d,e. Construction and operations of the proposed project would result in the generation of solid waste. The project site is located adjacent to existing development and, therefore, could feasibly be served by a solid waste provider. However, the change in development intensity of the proposed project would result in an associated change in the rate of solid waste generation as compared to what was previously planned for the project site. As a result, further analysis is required in order to evaluate the capacity of the solid waste provider and the regional landfill.

Therefore, the proposed project could result in a ***potentially significant*** impact related to generating solid waste in excess of State or local standards, in excess of the capacity of local infrastructure, or related to complying with federal, State, and local management and reduction statutes and regulations related to solid waste.

Further analysis of the above impacts will be included in the Public Services and Utilities chapter of the Farmstead Subdivision EIR.

XX. WILDFIRE. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	✖	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	✖	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	✖	☐

Discussion

a-d. According to the CAL FIRE Fire and Resource Assessment Program, the project site is not located within a State Responsibility Area.[32] Per the Local Responsibility Area map, the project site is not located within an area classified as a Very High Fire Hazard Severity Zone (VHFHSZ).[33]

Furthermore, development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors) and would be designed in accordance with the latest requirements of the California Fire Code. Compliance with such State regulations would ensure that the risk of fire at the project site is reduced to the maximum extent feasible.

Therefore, the project site is not located in or near a VHFHSZ, and the project would not contribute to any characteristics that exacerbate the risk of fire. Thus, a ***less-than-significant*** impact related to wildfire would occur.

[32] California Department of Forestry and Fire Protection. *Yolo County: Fire Hazards Severity Zones in SRA*. November 7, 2007.

[33] California Department of Forestry and Fire Protection. *Yolo County: Draft Fire Hazard Severity Zones in LRA*. October 5, 2007.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	✖	☐	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	✖	☐	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	✖	☐	☐	☐

Discussion

a. As discussed in Section IV, Biological Resources, of this Initial Study, sensitive species and habitat types that are covered by the Yolo HCP/NCCP have the potential to occur on-stie, and could be adversely affected by implementation of the proposed project. In addition, although known resources do not exist on-site, the potential exists for previously unknown, subsurface historical or prehistorical resources to be uncovered during ground-disturbing activities.

Considering the above, the proposed project may degrade the quality of the environment, substantially reduce or impact the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, a ***potentially-significant*** impact would occur.

Further analysis of the above impact will be included in the Biological Resources and Cultural and Tribal Cultural Resources chapters the Farmstead Subdivision EIR.

b,c. The proposed project, in conjunction with other development within the City of Winters, could incrementally contribute to cumulative impacts in the project area, particularly in relation to air quality, GHG emissions, noise, and transportation. A discussion of cumulative impacts associated with the proposed project will be discussed in the Statutorily Required Section chapter, as well as in relevant technical chapters of the Farmstead Subdivision EIR. Thus, a ***potentially significant*** impact could occur with regard to cumulative impacts.

Further analysis of the above impacts will be included in the Air Quality and GHG Emissions (including Energy), Biological Resources, Noise, Transportation, and Statutorily Required Sections chapters of the Farmstead Subdivision EIR.

Appendix B

December 8, 2021

VIA EMAIL: KIRK.SKIERSKI@CITYOFWINTERS.ORG
City of Winters Community Development Department
ATTN: Kirk Skierski, Senior Planner
318 First Street
Winters, CA 95694

Dear Mr. Skierski:

NOTICE OF PREPARATION TO PREPARE AN ENVIRONMENTAL IMPACT REPORT FOR THE FARMSTEAD SUBDIVISION PROJECT, SCH#2021110261

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Notice of Preparation to prepare an Environmental Impact Report for the Farmstead Subdivision Project (Project). The Division monitors farmland conversion on a statewide basis, provides technical assistance regarding the Williamson Act, and administers various agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's potential impacts on agricultural land and resources.

Project Description

The proposed project would include subdivision of a portion of the project site to develop 200 single-family residential units on 36.7 gross acres, 84 multi-family residential units on 4.2 gross acres, 135,000 square feet (sf) of commercial uses across seven lots totaling 12.4 gross acres, 3.2 gross acres of open space and Drainage Channel, and 5.4 gross acres of parkland. In addition, the project would include several roadway improvements. The proposed project would require approval of the following entitlements: General Plan Amendment (GPA), Rezone, Tentative Subdivision Map (TSM), Affordable Housing Plan, and a Development Agreement (DA).

Department Comments

The conversion of agricultural land represents a permanent reduction and significant impact to California's agricultural land resources. CEQA requires that all feasible and reasonable mitigation be reviewed and applied to projects. Under CEQA, a lead agency should not approve a project if there are feasible alternatives or feasible mitigation measures available that would lessen the significant effects of the project.

All mitigation measures that are potentially feasible should be included in the project's environmental review. A measure brought to the attention of the lead agency should not be left out unless it is infeasible based on its elements.

Consistent with CEQA Guidelines, the Department recommends the County consider agricultural conservation easements, among other measures, as potential mitigation. (See Cal. Code Regs., tit. 14, § 15370 [mitigation includes "compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements."])

Mitigation through agricultural easements can take at least two forms: the outright purchase of easements or the donation of mitigation fees to a local, regional, or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands should not be limited strictly to lands within the project's surrounding area.

A helpful source for regional and statewide agricultural mitigation banks is the California Council of Land Trusts. They provide helpful insight into farmland mitigation policies and implementation strategies, including a guidebook with model policies and a model local ordinance. The guidebook can be found at:

https://www.calandtrusts.org/resources/conserving-californias-harvest/

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered. Indeed, the recent judicial opinion in King and Gardiner Farms, LLC v. County of Kern (2020) 45 Cal.App.5th 814 ("KG Farms") holds that agricultural conservation easements on a 1 to 1 ratio are not alone sufficient to adequately mitigate a project's conversion of agricultural land. KG Farms does not stand for the proposition that agricultural conservation easements are irrelevant as mitigation. Rather, the holding suggests that to the extent they are considered, they may need to be applied at a greater than 1 to 1 ratio, or combined with other forms of mitigation (such as restoration of some land not currently used as farmland).

Conclusion

The Department recommends further discussion of the following issues:

- Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project.
- Impacts on any current and future agricultural operations in the vicinity; e.g., land-use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc.

- Incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects.
- Proposed mitigation measures for all impacted agricultural lands within the proposed project area.
- The Projects compatibility with, and/or, potential contract resolutions for lands within agricultural preserves and/or enrolled in a Williamson Act contract.
- If applicable, notification of Williamson Act contract non-renewal and/or cancellation.

Thank you for giving us the opportunity to comment on the Notice of Preparation to prepare an Environmental Impact Report for the Farmstead Subdivision Project. Please provide this Department with notices of any future hearing dates as well as any staff reports pertaining to this project. If you have any questions regarding our comments, please contact Farl Grundy, Associate Environmental Planner via email at Farl.Grundy@conservation.ca.gov.

Sincerely,

Monique Wilber

Monique Wilber

Conservation Program Support Supervisor

DocuSign Envelope ID: B15B2015-F574-475E-B5A7-65DC269A9120

California
Department of Conservation
Geologic Energy Management Division

Gavin Newsom, Governor
David Shabazian, Director
801 K Street, MS 18-05
Sacramento, CA 95814
T: (916) 445-9686

12/09/2021

Department of Conservation
Colin Lawson
colin.lawson@conservation.ca.gov

Construction Site Well Review (CSWR) ID: 1012378

Assessor Parcel Number(s): 038050018

Property Owner(s): Kirk Skierski

Project Location Address: 500 E Grant Avenue Winters, California 95694

Project Title: SCH 2021110261

Public Resources Code (PRC) § 3208.1 establishes well reabandonment responsibility when a previously plugged and abandoned well will be impacted by planned property development or construction activities. Local permitting agencies, property owners, and/or developers should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near oil, gas, and geothermal wells.

The California Geologic Energy Management Division (CalGEM) has received and reviewed the above referenced project dated 12/7/2021. To assist local permitting agencies, property owners, and developers in making wise land use decisions regarding potential development near oil, gas, or geothermal wells, the Division provides the following well evaluation.

The project is located in Yolo County, within the boundaries of the following fields:

Any Field

Our records indicate there are 1 known oil or gas wells located within the project boundary as identified in the application.

- Number of wells Not Abandoned to Current Division Requirements as Prescribed by Law and

Projected to Be Built Over or Have Future Access Impeded by this project: 1

- Number of wells Not Abandoned to Current Division Requirements as Prescribed by Law and Not Projected to Be Built Over or Have Future Access Impeded by this project: 0

- Number of wells Abandoned to Current Division Requirements as Prescribed by Law and Projected to Be Built Over or Have Future Access Impeded by this project: 0

- Number of wells Abandoned to Current Division Requirements as Prescribed by Law and Not Projected to Be Built Over or Have Future Access Impeded by this project: 0

The Division categorically advises against building over, or in any way impeding access to, oil, gas, or geothermal wells. Impeding access to a well could result in the need to remove any structure or obstacle that prevents or impedes access including, but not limited to, buildings, housing, fencing, landscaping, trees, pools, patios, sidewalks, roadways, and decking. Maintaining sufficient access is considered the ability for a well servicing unit and associated necessary equipment to reach a well from a public street or access way, solely over the parcel on which the well is located. A well servicing unit, and any necessary equipment, should be able to pass unimpeded along and over the route, and should be able to access the well without disturbing the integrity of surrounding infrastructure.

There are no guarantees a well abandoned in compliance with current Division requirements as prescribed by law will not start leaking in the future. It always remains a possibility that any well may start to leak oil, gas, and/or water after abandonment, no matter how thoroughly the well was plugged and abandoned. The Division acknowledges wells plugged and abandoned to the most current Division requirements as prescribed by law have a lower probability of leaking in the future, however there is no guarantees that such abandonments will not leak.

The Division advises that all wells identified on the development parcel prior to, or during, development activities be tested for liquid and gas leakage. Surveyed locations should be provided to the Division in Latitude and Longitude, NAD 83 decimal format. The Division expects any wells found leaking to be reported to it immediately.

Failure to plug and reabandon the well may result in enforcement action, including an order to perform reabandonment well work, pursuant to PRC § 3208.1, and 3224.

PRC § 3208.1 give the Division the authority to order or permit the re-abandonment of any well where it has reason to question the integrity of the previous abandonment, or if the well is not accessible or visible. Responsibility for re-abandonment costs may be affected by the choices made by the local permitting agency, property owner, and/or developer in considering the general advice set forth in this

letter. The PRC continues to define the person or entity responsible for reabandonment as:

1. The property owner - If the well was plugged and abandoned in conformance with Division requirements at the time of abandonment, and in its current condition does not pose an immediate danger to life, health, and property, but requires additional work solely because the owner of the property on which the well is located proposes construction on the property that would prevent or impede access to the well for purposes of remedying a currently perceived future problem, then the owner of the property on which the well is located shall obtain all rights necessary to reabandon the well and be responsible for the reabandonment.

2. The person or entity causing construction over or near the well - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and the property owner, developer, or local agency permitting the construction failed either to obtain an opinion from the supervisor or district deputy as to whether the previously abandoned well is required to be reabandoned, or to follow the advice of the supervisor or district deputy not to undertake the construction, then the person or entity causing the construction over or near the well shall obtain all rights necessary to reabandon the well and be responsible for the reabandonment.

3. The party or parties responsible for disturbing the integrity of the abandonment - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and after that time someone other than the operator or an affiliate of the operator disturbed the integrity of the abandonment in the course of developing the property, then the party or parties responsible for disturbing the integrity of the abandonment shall be responsible for the reabandonment.

No well work may be performed on any oil, gas, or geothermal well without written approval from the Division. Well work requiring approval includes, but is not limited to, mitigating leaking gas or other fluids from abandoned wells, modifications to well casings, and/or any other re-abandonment work. The Division also regulates the top of a plugged and abandoned well's minimum and maximum depth below final grade. CCR §1723.5 states well casings shall be cut off at least 5 feet but no more than 10 feet below grade. If any well needs to be lowered or raised (i.e. casing cut down or casing riser added) to meet this regulation, a permit from the Division is required before work can start.

The Division makes the following additional recommendations to the local permitting agency, property owner, and developer:

1. To ensure that present and future property owners are aware of (a) the existence of all wells located on the property, and (b) potentially significant issues associated with any improvements near oil or gas wells, the Division recommends that information regarding the above identified

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well(s), and any other pertinent information obtained after the issuance of this letter, be communicated to the appropriate county recorder for inclusion in the title information of the subject real property.

2. The Division recommends that any soil containing hydrocarbons be disposed of in accordance with local, state, and federal laws. Please notify the appropriate authorities if soil containing significant amounts of hydrocarbons is discovered during development.

As indicated in PRC § 3106, the Division has statutory authority over the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells, and attendant facilities, to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil, gas, and geothermal deposits; and damage to underground and surface waters suitable for irrigation or domestic purposes. In addition to the Division's authority to order work on wells pursuant to PRC §§ 3208.1 and 3224, it has authority to issue civil and criminal penalties under PRC §§ 3236, 3236.5, and 3359 for violations within the Division's jurisdictional authority. The Division does not regulate grading, excavations, or other land use issues.

If during development activities, any wells are encountered that were not part of this review, the property owner is expected to immediately notify the Division's construction site well review engineer in the Northern district office, and file for Division review an amended site plan with well casing diagrams. The District office will send a follow-up well evaluation letter to the property owner and local permitting agency.

Should you have any questions, please contact me at (504) 425-7710 or via email at Miguel.Cabrera@conservation.ca.gov.

Sincerely,

Miguel Cabrera

Miguel Cabrera
Northern District Deputy

cc: Colin Lawson - Submitter

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Wells Not Abandoned to Current Division Requirements as Prescribed by Law & Projected to be Built Over or Have Future Access Impeded

The wells listed below are not abandoned to current Division requirements as prescribed by law, and based upon information provided, are projected to be built over or have future access impeded. **The Division expects these wells to be reabandoned in compliance with current California law, prior to development activities.**

API	Well Designation	Operator	Well Evaluations
0411300132	Shell-Bishop-Tex.Plsnt.Crk. Un 1	Shell Western E&P Inc.	Dry hole. Insufficient base of fresh water plug (2007'-1863'), insufficient shoe plug (540'-447'), no surface plug.

17 December 2021

Kirk Skierski
City of Winters
318 First Street
Winters, CA 95694
Kirk.Skierski@cityofwinters.org

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, FARMSTEAD SUBDIVISION PROJECT, SCH#2021110261, YOLO COUNTY

Pursuant to the State Clearinghouse's 18 November 2021 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the Farmstead Subdivision Project, located in Yolo County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic

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[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter G. Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

County of Yolo

DEPARTMENT OF COMMUNITY SERVICES

Taro Echiburú, DIRECTOR

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December 17, 2021

VIA E-MAIL

City of Winters Community Development Department
318 First Street
Winters, CA 95694
Attn: Kirk Skierski, Senior Planner
Kirk.Skierski@cityofwinters.org

Dear Mr. Skierski:

The County of Yolo appreciates the opportunity to provide comments regarding the proposed Environmental Impact Report for the Farmstead Subdivision Project during the City's scoping period. County staff seek to engage with the City regarding one of the County's highest priorities, which is the preservation of agricultural resources in the unincorporated area.

The project site, which is located within the City limits, adjoins unincorporated agricultural lands to the north, and therefore, this comment letter focuses primarily on the relationship between the proposed project and its potential effects on existing agricultural uses. The project proposes to convert approximately 61.9 acres of undeveloped land, previously used for agriculture, to a mix of uses including 200 single-family residential units, 84 multi-family residential units, 135,000 square feet of commercial uses, 3.2 acres of open space and drainage channel, and 5.4 acres of parkland. For the most part, the project site is currently designated for such uses, but will require a General Plan Amendment to change the configuration of the respective land use and zoning designations and add a new land use and zoning designation to accommodate high density residential uses. The County notes that the current City General Plan identifies 13.5 acres of Open Space which will be reduced to 7.7 acres to accommodate the project.

AGRICULTURAL RESOURCES

Agricultural Buffer

The City is encouraged to refer to policies in the Countywide General Plan that seek to protect existing farm operations from impacts related to the encroachment of urban uses through use of an increased buffer, as opposed to the current configuration identified in Figure 5 of the Notice of Preparation (NOP). The proposed Lot E shows a one-acre strip of open space along the eastern portion of the northern border that tapers off and altogether disappears along the western edge. It is not clear how wide the open space lot will be and whether it will be used for recreational uses, but the County has concerns

that the open space lot will not provide an adequate buffer to protect the existing agricultural practices on the adjoining parcel to the north.

General Plan Policy LU-2.1 in the County's Land Use and Community Character Element recommends a minimum 300-foot setback for *ensuring the proposed development will not adversely affect the economic viability or constrain the farming practices of nearby agricultural operations*.

Impacts to Adjacent Farming Operations in Unincorporated Yolo County
The County respectfully requests that the City take into consideration the potential adverse effects of placing sensitive land uses, such as residences and recreational features, within proximity to existing agricultural operations in the unincorporated area. The County has established setback requirements for agricultural operations that apply restricted materials, such as the almond orchard to the north, which include a 500-foot setback for aerial spraying and a 300-foot setback for ground application to address potential pesticide drift to nearby residential development. The proposed tentative map shows that as many as 46 of the proposed residences would be within 300 feet of the almond orchard to the north. Given that the orchard has been established for several years and has an average operational life of 20 to 30 years, the agricultural operator would be forced to modify existing farming operations and potentially lose portions of the orchard closest to the new residential development. For this reason, the County requests that this potentially significant impact to agricultural resources be fully analyzed in the EIR. One option to reduce or eliminate the potential impact is to consider incorporating a larger buffer into the proposed development.

Other potential measures to address these potentially significant adverse effects may include a redesign to the project that would place residences as far from the orchard as possible and restricting active recreational uses within 300 feet of the orchard; alternatively, the City may consider coordinating with the grower to acquire and establish a no-spray easement. Absent the acquisition of a no-spray easement from the adjacent agricultural operator, whose pest-control options will be constrained by neighboring development, the project should have to mitigate for the reduced productive potential of the aforementioned impacted area.

The County also requests that the project reference the County's Right-to-Farm Ordinance, which allows for the continued operation of agricultural operations despite perceived nuisances, such as dust, light, and noise associated with typical agricultural operations (Chapter 6 of Title 10, Yolo County Code of Ordinances) .

HYDROLOGY AND WATER QUALITY

Stormwater Runoff/Detention
The City is encouraged to evaluate in the EIR the potentially adverse hydrologic and hydraulic effects created by the project and mitigate all increases in the rate of runoff on site. Post-development flow rates that exceed pre-development will further exacerbate flooding downstream as well as degrade water quality by increasing flow velocities in local creeks, sloughs, and channels. Yolo County's "City/County Drainage Manual" establishes guidelines for achieving consistency in criteria and methodology for hydrologic and hydraulic analyses associated with storm runoff between rural and urban areas in Yolo County.

County staff look forward to strengthening our relationship with City staff and are eager to discuss matters outlined in this comment letter. My staff is available to work with you at these early stages of the process to adequately analyze and address the project's potential impacts to the agricultural uses

within the unincorporated area. Please direct all correspondence regarding this project to Stephanie Cormier, Principal Planner, at stephanie.cormier@yolocounty.org so that we may continue the dialogue. Thank you for allowing the County an opportunity to provide comments on the proposed Farmstead Subdivision Project.

Sincerely,



Taro Echiburú, Director
Department of Community Services

cc (via e-mail only):
Supervisor Don Saylor
Interim County Administrator Chad Rinde
Agricultural Commissioner Humberto Izquierdo

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
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November 18, 2021

Kirk Skierski, Senior Planner
City of Winters, Community Development Department
318 First Street
Winters, CA 95694

Re: 2021110261, Farmstead Subdivision Project, Yolo County

Dear Mr. Skierski:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

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

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

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

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

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

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Environmental Planner

cc: State Clearinghouse

From: Kate Laddish
To: Kirk Skierski
Subject: [EXTERNAL]Farmstead EIR comment
Date: Friday, December 17, 2021 12:37:54 PM

Dear Kirk,

This email is a follow-up to my comments during the Farmstead Scoping Meeting held on November 30, 2021.

I would like the environmental impact report for the Farmstead Subdivision Project to include and address:

a. Traffic, greenhouse gas emissions, and walkability. This includes alternatives for road and intersection styles (e.g., traffic circles, the use of which decreases greenhouse gas emissions, versus stop signs or traffic lights within the project and where the project connects to other areas and infrastructure) and options for increasing walkability and bikeability, including connectivity to other areas, to minimize vehicle miles traveled. Are there pedestrian connections, and are they pleasant enough that people would use them? I'd like functionality for people with disabilities to be included in that (e.g., avoid using driveway cutouts in sidewalks, consider surfaces used). I'd like specific consideration giving to crossing at Grant by the project.

b. Grant Avenue crossing. Related to the first point, does this project provide an opportunity to put in the long-awaited roundabout and crosswalk on Grant at Morgan, which would require having a sidewalk on the north side of Grant at Morgan? In other words, is there an opportunity to put a sidewalk along the north side of Grant Avenue, and what would be the environmental costs and benefits of putting that in?

c. Increases in temperature due to urbanization of this large parcel, and options for minimizing the heat-island effect. This should include what the impacts will be of different alternatives (e.g., types and amount of pavement, roof variety and color, and amount and type of vegetation, including street trees). Because the predicted and modeled temperature regime for our area points toward us having increased peak temperatures, more days over 100 degrees, and a significant decrease in nighttime cooling, addressing heat-island impacts in projects is extremely important. Heat is the top weather-related cause of death in the US, especially where there is lack of nighttime cooling. I would like the health risk assessment and energy considerations to address heat-island impacts.

d. Increased temperature taken into account on energy-use budgets and related greenhouse gas emissions for the lifetime of the project. Related to that, what are construction and landscaping alternatives to decrease indoor heating and maximize passive cooling during hot weather?

e. Infiltration, stormwater conveyance and impact, and flood risk. What will the impacts and risks be on this project, existing built areas, the stormwater system, the stormwater channel near the PG&E facility, and Putah Creek? How will this project increase peak discharge of Putah Creek, and stormwater discharge via the concrete apron from the stormwater system? Could there be increase risks for erosion and flooding? How will this project increase the chemical load in stormwater that enters Putah Creek? How will

that changed flow and chemical regime impact species of particular interest, such as fall-run Chinook salmon? Since this parcel is already subject to flooding, there may be decreased opportunity for infiltration since the soil may already be saturated during storms. Flooding has increased in Winters recently following several projects. How will this project not create that same problem?

f. Wildfire. How will this project minimize susceptibility to fire and minimize risk of spreading fire, such as by use of firewise building and landscaping practices (e.g., no wooden fences within five feet of structures, appropriately fine grating over attic vents, etc.)? How will the road system in the project work if the project area has to be evacuated due to a fire (or a flood), and how will the project impact evacuation efforts for the whole city? If the city and surrounding areas have to evacuate, how will this project help (perhaps through increasing evacuation routes) or hinder (through increased population and possible creation of bottlenecks) efficient evacuation? What steps will be taken in design and construction to keep this project from acting as a fire conduit into the rest of the city, or a conduit for fire to get from other parts of the city into this project? Also, how will indoor occupants of residential and commercial buildings be protected from smoke during fires?

g. Light pollution. How will light pollution from the project impact visibility of night skies, behavior of birds and insects, and people's sleep? How will different lighting options exacerbate or minimize light pollution?

h. Environmental impact of dwelling type and business type. The project map shows an emphasis on single-family housing, without the duplex-on-corner-lots option allowed in city code, and without a mix of housing types and size. How would the dwelling style and size impact environmental considerations? Since single-family homes are more resource-intensive and have larger per-person impact on issues such as percent of ground converted into impermeable surface, I'd like the EIR to address impacts of housing options.

i. Types of appliances (gas or electric), their impact on greenhouse gas production, and infrastructure needed for those appliances. The choice of using gas appliances versus electric appliances will impact the greenhouse gas emissions, and the type of appliances will impact the infrastructure needed.

j. Air quality. Impacts on air quality during both construction and at buildout.

Please feel free to contact me if you have any questions.

Thank you,

Kate

Kate Laddish
kladdish@sbcglobal.net

Kirk Skierski

From: Richard Handlen <Richard.Handlen@edi-international.com>
Sent: Monday, November 22, 2021 10:03 AM
To: Kirk Skierski
Subject: [EXTERNAL]Farmstead plan comments

Dear Mr. Skierski,
Following are a few ideas and areas of concern with the proposed Farmstead site plan:

THE CITY'S GATEWAY:

- This project will be one of visitors first impressions of Winters, care should be given to minimize the views of commercial parking lots while maximizing the number of trees.
- Signage should also be kept discrete and controlled with a consistent design program and centralized locations.

HIGH DENSITY HOUSING LOCATION

- Currently Lot A is the proposed location for multifamily housing. This will place the residences up against State Highway 128. The largest proposed commercial blocks, C1-C4, back up to the Park on Lot D. Ideally, next door to the park is where the higher density housing wants to be. In that location the occupants would be able to enjoy open space at their doorstep rather than traffic and its noise. The south side of the park would be lined with residential buildings instead of the rear ends of commercial structures.
- Lot A, Unit 1 and the commercial B lots could be reconfigured to accommodate a larger commercial facility such as a grocery store.

MINOR RESIDENTIAL STREET SECTION "C"

- It has been shown that trees help cool the environment and improve the health of the community. With the prospects of more triple digit summers, trees are a critical defense against the heat.
- The proposed section for these residential street places the sidewalks against the street. This solution expands the hardscape by combining the roads and sidewalks into one continuous sea of hot surfaces. The so called "street trees" end up in someone's yard where they become less likely to survive the owner's aesthetic preferences or degree of care.
- The best looking streets with the most successful street trees are designed with medians separating the roadway from the sidewalks. This breaks up the hard surfaces and bring the trees next to the street so they can start to shade both the streets and the sidewalks. The design also allows considerate dogwalkers the option of using the median rather than someone's yard.

INCENTIVES:

- A new development is the perfect time for the City to explore ways to encourage citizens to help in the fight against Climate Change.
- Many cities are doing this for years by limiting the amount of hard surfaces allowable in a front yard. Rather than blocking paving there could be an "add-on" tax to discourage going over the limit.

- There could be an “add-on” tax for lack of a street tree in front of a residence. This would require a one day survey once a year to update the City’s tree count.

ADDITIONAL DESIGN GOALS:

- Most new homes have garages that become large storage units. Ideally each home should include a minimum of 50 square feet of storage space adjacent to or included in the garage. In other words, the standard 20x20 garage could have an extra 2 feet along one side to allow storage plus cars.
- Developers could include optional storage units as part of the design package to help keep some design consistency in the neighborhoods.
- Trash enclosure should be included in the design of each house, either attached to the house or as part of the fencing package.
- A two car driveway should be 20 feet wide to allow people to get out of their cars without having to immediately start paving the yard.
- All paving should be permeable to minimize flooding runoff and help to replenish ground water.

Thanks for your consideration,

Richard Handlen, AIA, LEED AP
(415) 362-2880
richard@edisf.com

Farmstead Subdivision Project
NOP Scoping Meeting Comment Summary

Date: November 30, 2021
Time: 2:30 PM
Location: Online only (Zoom) – No physical location

I. Presentation by Rod Stinson, Raney Planning & Management

II. Verbal Comments (arranged in order of "appearance" of commenter):

1. Public Comments:

Commenter 1: Kate Laddish

- Concerns regarding Traffic and Greenhouse Gas Emissions related to:
  - Other intersection options;
  - Walkability (pedestrian access across Grant Avenue); and
  - Heat island effects.
- Concerns regarding Stormwater as related to:
  - Infiltration and stormwater conveyance; and
  - Peak flow causing erosion.
- Concerns related to an evacuation scenario for traffic generated by the proposed project.
- Concerns regarding project design related to fire protection.
- Concerns related to Light and Glare, such as light pollution impacts on insects.
- Concerns regarding Air Quality impacts related to stoves and other uses of natural gas.

Commenter 2: Ozzy Arce

- Concerns regarding pedestrian and bike connectivity for the project site.
- Suggestions for vehicle miles traveled (VMT) mitigation, such as additional connectivity to the surrounding area in the form of:
  - New facilities outside of the project site, such as:
    - A connection to the existing PG&E facility (i.e., cross Grant Avenue); and
    - A connection to existing Putah Creek Road.

Commenter 3: Nathan Skalicky

- Concerns regarding the water supply of the City as it relates to the proposed project.
- Concerns regarding impacts to the adjacent neighborhood related to:
  - Air Quality, Noise, Traffic, and Public Services

Commenter 4: Kathryn Charbonneau

- Concerns regarding impacts related to increased parking demands in the Winters downtown area.

Commenter 5: Katie Skalicky

- Concerns regarding increased traffic caused by the proposed project, specifically related to traffic travelling through the Broadview Lane Neighborhood

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Farmstead Project Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Farmstead Project
Construction Start Date	8/1/2025
Operational Year	2029
Lead Agency	City of Winters
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	35.0
Location	38.530910766594076, -121.96159254833165
County	Yolo
City	Winters
Air District	Yolo/Solano AQMD
Air Basin	Sacramento Valley
TAZ	329
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.24

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

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Single Family Housing	188	Dwelling Unit	39.4	366,600	23,524	—	521	—
Condo/Townhouse	57.0	Dwelling Unit	4.54	60,420	34,630	—	158	—
Apartments Mid Rise	84.0	Dwelling Unit	2.89	80,640	25,483	—	233	—
Strip Mall	37.0	1000sqft	1.97	37,000	14,375	—	—	—
Parking Lot	445	Space	4.00	0.00	0.00	—	—	—
City Park	9.10	Acre	9.10	0.00	300,564	300,564	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.34	7.98	32.9	31.2	0.08	1.37	19.8	21.2	1.26	10.1	11.4	—	9,419	9,419	0.40	0.47	11.4	9,576
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.19	7.89	33.2	30.3	0.08	1.28	10.1	11.4	1.17	3.89	5.06	—	9,395	9,395	0.40	0.47	0.30	9,547
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.78	5.54	9.84	16.6	0.02	0.39	3.55	3.94	0.35	1.51	1.86	—	4,139	4,139	0.12	0.20	3.18	4,204

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.06	1.01	1.80	3.04	< 0.005	0.07	0.65	0.72	0.06	0.27	0.34	—	685	685	0.02	0.03	0.53	696

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.08	3.38	32.9	31.2	0.08	1.37	19.8	21.2	1.26	10.1	11.4	—	9,419	9,419	0.40	0.47	6.57	9,576
2026	8.34	7.98	12.6	26.8	0.03	0.42	2.50	2.92	0.39	0.60	0.98	—	6,059	6,059	0.18	0.28	11.4	6,158
2027	8.17	7.90	12.1	26.0	0.03	0.37	2.50	2.87	0.34	0.60	0.94	—	5,995	5,995	0.17	0.27	10.3	6,090
2028	8.09	7.76	11.5	25.4	0.03	0.33	2.50	2.83	0.30	0.60	0.90	—	5,923	5,923	0.17	0.27	9.27	6,017
2029	8.02	7.68	11.1	24.8	0.03	0.30	2.50	2.80	0.27	0.60	0.87	—	5,855	5,855	0.16	0.19	8.29	5,925
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.07	3.33	33.2	30.3	0.08	1.28	10.1	11.4	1.17	3.89	5.06	—	9,395	9,395	0.40	0.47	0.17	9,547
2026	8.19	7.89	30.6	29.5	0.08	1.17	10.1	11.3	1.06	3.89	4.95	—	9,341	9,341	0.40	0.47	0.30	9,492
2027	8.10	7.75	12.4	23.2	0.03	0.37	2.50	2.87	0.34	0.60	0.94	—	5,741	5,741	0.18	0.28	0.27	5,828
2028	8.02	7.68	11.7	22.7	0.03	0.33	2.50	2.83	0.30	0.60	0.90	—	5,674	5,674	0.18	0.27	0.24	5,760
2029	7.96	7.62	11.3	22.2	0.03	0.30	2.50	2.80	0.27	0.60	0.87	—	5,610	5,610	0.18	0.27	0.21	5,694
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.22	1.00	9.84	9.12	0.02	0.39	3.55	3.94	0.35	1.51	1.86	—	2,599	2,599	0.11	0.12	0.71	2,638
2026	2.97	2.78	8.78	13.1	0.02	0.33	1.62	1.95	0.30	0.51	0.81	—	3,084	3,084	0.11	0.13	1.77	3,127
2027	5.78	5.54	8.75	16.6	0.02	0.27	1.75	2.01	0.25	0.42	0.66	—	4,139	4,139	0.12	0.20	3.18	4,204
2028	5.75	5.51	8.33	16.3	0.02	0.24	1.75	1.99	0.21	0.42	0.63	—	4,101	4,101	0.12	0.19	2.86	4,165

2029	2.08	2.00	2.72	5.42	0.01	0.07	0.60	0.67	0.07	0.14	0.21	—	1,376	1,376	0.04	0.06	0.87	1,397
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.22	0.18	1.80	1.66	< 0.005	0.07	0.65	0.72	0.06	0.27	0.34	—	430	430	0.02	0.02	0.12	437
2026	0.54	0.51	1.60	2.39	< 0.005	0.06	0.30	0.36	0.06	0.09	0.15	—	511	511	0.02	0.02	0.29	518
2027	1.06	1.01	1.60	3.04	< 0.005	0.05	0.32	0.37	0.04	0.08	0.12	—	685	685	0.02	0.03	0.53	696
2028	1.05	1.01	1.52	2.98	< 0.005	0.04	0.32	0.36	0.04	0.08	0.12	—	679	679	0.02	0.03	0.47	690
2029	0.38	0.37	0.50	0.99	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	228	228	0.01	0.01	0.14	231

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.08	3.38	32.9	31.2	0.08	1.37	19.8	21.2	1.26	10.1	11.4	—	9,419	9,419	0.40	0.47	6.57	9,576
2026	8.34	7.98	12.6	26.8	0.03	0.42	2.50	2.92	0.39	0.60	0.98	—	6,059	6,059	0.18	0.28	11.4	6,158
2027	8.17	7.90	12.1	26.0	0.03	0.37	2.50	2.87	0.34	0.60	0.94	—	5,995	5,995	0.17	0.27	10.3	6,090
2028	8.09	7.76	11.5	25.4	0.03	0.33	2.50	2.83	0.30	0.60	0.90	—	5,923	5,923	0.17	0.27	9.27	6,017
2029	8.02	7.68	11.1	24.8	0.03	0.30	2.50	2.80	0.27	0.60	0.87	—	5,855	5,855	0.16	0.19	8.29	5,925
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.07	3.33	33.2	30.3	0.08	1.28	10.1	11.4	1.17	3.89	5.06	—	9,395	9,395	0.40	0.47	0.17	9,547
2026	8.19	7.89	30.6	29.5	0.08	1.17	10.1	11.3	1.06	3.89	4.95	—	9,341	9,341	0.40	0.47	0.30	9,492
2027	8.10	7.75	12.4	23.2	0.03	0.37	2.50	2.87	0.34	0.60	0.94	—	5,741	5,741	0.18	0.28	0.27	5,828
2028	8.02	7.68	11.7	22.7	0.03	0.33	2.50	2.83	0.30	0.60	0.90	—	5,674	5,674	0.18	0.27	0.24	5,760
2029	7.96	7.62	11.3	22.2	0.03	0.30	2.50	2.80	0.27	0.60	0.87	—	5,610	5,610	0.18	0.27	0.21	5,694
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2025	1.22	1.00	9.84	9.12	0.02	0.39	3.55	3.94	0.35	1.51	1.86	—	2,599	2,599	0.11	0.12	0.71	2,638
2026	2.97	2.78	8.78	13.1	0.02	0.33	1.62	1.95	0.30	0.51	0.81	—	3,084	3,084	0.11	0.13	1.77	3,127
2027	5.78	5.54	8.75	16.6	0.02	0.27	1.75	2.01	0.25	0.42	0.66	—	4,139	4,139	0.12	0.20	3.18	4,204
2028	5.75	5.51	8.33	16.3	0.02	0.24	1.75	1.99	0.21	0.42	0.63	—	4,101	4,101	0.12	0.19	2.86	4,165
2029	2.08	2.00	2.72	5.42	0.01	0.07	0.60	0.67	0.07	0.14	0.21	—	1,376	1,376	0.04	0.06	0.87	1,397
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.22	0.18	1.80	1.66	< 0.005	0.07	0.65	0.72	0.06	0.27	0.34	—	430	430	0.02	0.02	0.12	437
2026	0.54	0.51	1.60	2.39	< 0.005	0.06	0.30	0.36	0.06	0.09	0.15	—	511	511	0.02	0.02	0.29	518
2027	1.06	1.01	1.60	3.04	< 0.005	0.05	0.32	0.37	0.04	0.08	0.12	—	685	685	0.02	0.03	0.53	696
2028	1.05	1.01	1.52	2.98	< 0.005	0.04	0.32	0.36	0.04	0.08	0.12	—	679	679	0.02	0.03	0.47	690
2029	0.38	0.37	0.50	0.99	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	228	228	0.01	0.01	0.14	231

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	38.3	35.8	23.3	233	0.53	0.57	44.6	45.2	0.54	11.3	11.9	171	57,129	57,300	19.8	2.47	144	58,674
Mit.	38.3	35.8	23.3	233	0.53	0.57	44.6	45.2	0.54	11.3	11.9	171	56,068	56,240	19.6	2.45	144	57,603
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	1%	1%	—	2%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	34.8	32.2	26.7	180	0.49	0.56	44.6	45.1	0.53	11.3	11.9	171	52,973	53,144	20.0	2.65	7.51	54,442
Mit.	34.8	32.2	26.7	180	0.49	0.56	44.6	45.1	0.53	11.3	11.9	171	51,913	52,084	19.8	2.63	7.51	53,371
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	1%	1%	—	2%

675

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	35.6	33.1	25.3	189	0.50	0.56	43.6	44.2	0.54	11.1	11.6	171	53,863	54,034	19.9	2.56	64.6	55,359
Mit.	35.6	33.1	25.3	189	0.50	0.56	43.6	44.2	0.54	11.1	11.6	171	52,803	52,974	19.7	2.54	64.6	54,288
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	1%	1%	—	2%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.51	6.05	4.62	34.5	0.09	0.10	7.96	8.06	0.10	2.02	2.12	28.4	8,918	8,946	3.29	0.42	10.7	9,165
Mit.	6.51	6.05	4.62	34.5	0.09	0.10	7.96	8.06	0.10	2.02	2.12	28.4	8,742	8,770	3.26	0.42	10.7	8,988
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	1%	1%	—	2%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	23.1	20.8	21.1	212	0.52	0.39	44.6	45.0	0.36	11.3	11.7	—	52,850	52,850	2.12	2.36	141	53,748
Area	15.0	14.9	0.19	20.3	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	56.5	56.5	< 0.005	< 0.005	—	56.7
Energy	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	4,188	4,188	0.48	0.04	—	4,211
Water	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Waste	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Total	38.3	35.8	23.3	233	0.53	0.57	44.6	45.2	0.54	11.3	11.9	171	57,129	57,300	19.8	2.47	144	58,674
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	21.5	19.1	24.6	179	0.48	0.39	44.6	45.0	0.37	11.3	11.7	—	48,751	48,751	2.31	2.55	3.65	49,572
Area	13.0	13.0	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	4,188	4,188	0.48	0.04	—	4,211
Water	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Waste	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Total	34.8	32.2	26.7	180	0.49	0.56	44.6	45.1	0.53	11.3	11.9	171	52,973	53,144	20.0	2.65	7.51	54,442
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	21.4	19.1	23.1	178	0.48	0.39	43.6	44.0	0.36	11.1	11.5	—	49,613	49,613	2.19	2.46	60.7	50,461
Area	14.0	13.9	0.09	10.0	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	27.9	27.9	< 0.005	< 0.005	—	28.0
Energy	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	4,188	4,188	0.48	0.04	—	4,211
Water	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Waste	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Total	35.6	33.1	25.3	189	0.50	0.56	43.6	44.2	0.54	11.1	11.6	171	53,863	54,034	19.9	2.56	64.6	55,359
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.91	3.48	4.22	32.5	0.09	0.07	7.96	8.03	0.07	2.02	2.09	—	8,214	8,214	0.36	0.41	10.1	8,354
Area	2.55	2.54	0.02	1.83	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.61	4.61	< 0.005	< 0.005	—	4.63
Energy	0.04	0.02	0.38	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	693	693	0.08	0.01	—	697
Water	—	—	—	—	—	—	—	—	—	—	—	4.51	5.64	10.2	0.46	0.01	—	25.0
Waste	—	—	—	—	—	—	—	—	—	—	—	23.8	0.00	23.8	2.38	0.00	—	83.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.64	0.64
Total	6.51	6.05	4.62	34.5	0.09	0.10	7.96	8.06	0.10	2.02	2.12	28.4	8,918	8,946	3.29	0.42	10.7	9,165

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	23.1	20.8	21.1	212	0.52	0.39	44.6	45.0	0.36	11.3	11.7	—	52,850	52,850	2.12	2.36	141	53,748
Area	15.0	14.9	0.19	20.3	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	56.5	56.5	< 0.005	< 0.005	—	56.7
Energy	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	3,128	3,128	0.31	0.01	—	3,140
Water	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Waste	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Total	38.3	35.8	23.3	233	0.53	0.57	44.6	45.2	0.54	11.3	11.9	171	56,068	56,240	19.6	2.45	144	57,603
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	21.5	19.1	24.6	179	0.48	0.39	44.6	45.0	0.37	11.3	11.7	—	48,751	48,751	2.31	2.55	3.65	49,572
Area	13.0	13.0	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	3,128	3,128	0.31	0.01	—	3,140
Water	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Waste	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Total	34.8	32.2	26.7	180	0.49	0.56	44.6	45.1	0.53	11.3	11.9	171	51,913	52,084	19.8	2.63	7.51	53,371
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	21.4	19.1	23.1	178	0.48	0.39	43.6	44.0	0.36	11.1	11.5	—	49,613	49,613	2.19	2.46	60.7	50,461
Area	14.0	13.9	0.09	10.0	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	27.9	27.9	< 0.005	< 0.005	—	28.0
Energy	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	3,128	3,128	0.31	0.01	—	3,140
Water	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Waste	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87

Total	35.6	33.1	25.3	189	0.50	0.56	43.6	44.2	0.54	11.1	11.6	171	52,803	52,974	19.7	2.54	64.6	54,288
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.91	3.48	4.22	32.5	0.09	0.07	7.96	8.03	0.07	2.02	2.09	—	8,214	8,214	0.36	0.41	10.1	8,354
Area	2.55	2.54	0.02	1.83	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.61	4.61	< 0.005	< 0.005	—	4.63
Energy	0.04	0.02	0.38	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	518	518	0.05	< 0.005	—	520
Water	—	—	—	—	—	—	—	—	—	—	—	4.51	5.64	10.2	0.46	0.01	—	25.0
Waste	—	—	—	—	—	—	—	—	—	—	—	23.8	0.00	23.8	2.38	0.00	—	83.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.64	0.64
Total	6.51	6.05	4.62	34.5	0.09	0.10	7.96	8.06	0.10	2.02	2.12	28.4	8,742	8,770	3.26	0.42	10.7	8,988

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movemen	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.73	1.65	< 0.005	0.07	—	0.07	0.07	—	0.07	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	1.08	1.08	—	0.55	0.55	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.32	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.0	48.0	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	1.05	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	198	198	< 0.005	0.01	0.76	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.91	9.91	< 0.005	< 0.005	0.02	10.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.64	1.64	< 0.005	< 0.005	< 0.005	1.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.73	1.65	< 0.005	0.07	—	0.07	0.07	—	0.07	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	1.08	1.08	—	0.55	0.55	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.32	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.0	48.0	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	1.05	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	198	198	< 0.005	0.01	0.76	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.91	9.91	< 0.005	< 0.005	0.02	10.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.64	1.64	< 0.005	< 0.005	< 0.005	1.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movemen	—	—	—	—	—	—	9.22	9.22	—	3.66	3.66	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movemen	—	—	—	—	—	—	9.22	9.22	—	3.66	3.66	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93	0.78	7.26	6.93	0.01	0.30	—	0.30	0.28	—	0.28	—	1,614	1,614	0.07	0.01	—	1,620
Dust From Material Movemen	—	—	—	—	—	—	2.26	2.26	—	0.89	0.89	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.32	1.26	< 0.005	0.06	—	0.06	0.05	—	0.05	—	267	267	0.01	< 0.005	—	268
Dust From Material Movement	—	—	—	—	—	—	0.41	0.41	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.20	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	226	226	< 0.005	0.01	0.86	229
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.19	0.06	3.20	1.13	0.02	0.05	0.66	0.71	0.03	0.19	0.22	—	2,594	2,594	0.13	0.41	5.70	2,726
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	202	202	< 0.005	0.01	0.02	204
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.18	0.05	3.46	1.14	0.02	0.05	0.66	0.71	0.03	0.19	0.22	—	2,595	2,595	0.13	0.41	0.15	2,721
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.6	50.6	< 0.005	< 0.005	0.09	51.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.01	0.83	0.28	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	635	635	0.03	0.10	0.60	666
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.37	8.37	< 0.005	< 0.005	0.02	8.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.01	< 0.005	0.15	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	0.01	0.02	0.10	110

3.4. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movemen	—	—	—	—	—	—	9.22	9.22	—	3.66	3.66	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movemen	—	—	—	—	—	—	9.22	9.22	—	3.66	3.66	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93	0.78	7.26	6.93	0.01	0.30	—	0.30	0.28	—	0.28	—	1,614	1,614	0.07	0.01	—	1,620

Dust From Material Movemen	—	—	—	—	—	—	2.26	2.26	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.32	1.26	< 0.005	0.06	—	0.06	0.05	—	0.05	—	267	267	0.01	< 0.005	—	268
Dust From Material Movemen	—	—	—	—	—	—	0.41	0.41	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.20	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	226	226	< 0.005	0.01	0.86	229
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.19	0.06	3.20	1.13	0.02	0.05	0.66	0.71	0.03	0.19	0.22	—	2,594	2,594	0.13	0.41	5.70	2,726
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	202	202	< 0.005	0.01	0.02	204
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.18	0.05	3.46	1.14	0.02	0.05	0.66	0.71	0.03	0.19	0.22	—	2,595	2,595	0.13	0.41	0.15	2,721
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.6	50.6	< 0.005	< 0.005	0.09	51.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.01	0.83	0.28	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	635	635	0.03	0.10	0.60	666

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.37	8.37	< 0.005	< 0.005	0.02	8.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.15	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	0.01	0.02	0.10	110

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.22	9.22	—	3.66	3.66	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.26	2.29	2.32	0.01	0.09	—	0.09	0.09	—	0.09	—	555	555	0.02	< 0.005	—	557
Dust From Material Movement	—	—	—	—	—	—	0.78	0.78	—	0.31	0.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

687

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.42	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	91.9	91.9	< 0.005	< 0.005	—	92.2
Dust From Material Movemen:	—	—	—	—	—	—	0.14	0.14	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.84	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	< 0.005	0.01	0.02	200
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.18	0.05	3.34	1.11	0.02	0.05	0.66	0.71	0.03	0.19	0.22	—	2,544	2,544	0.13	0.41	0.14	2,670
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.1	17.1	< 0.005	< 0.005	0.03	17.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	< 0.005	0.28	0.09	< 0.005	< 0.005	0.05	0.06	< 0.005	0.02	0.02	—	214	214	0.01	0.03	0.20	225
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.83	2.83	< 0.005	< 0.005	< 0.005	2.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.4	35.4	< 0.005	0.01	0.03	37.2

3.6. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

688

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movemen	—	—	—	—	—	—	9.22	9.22	—	3.66	3.66	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.26	2.29	2.32	0.01	0.09	—	0.09	0.09	—	0.09	—	555	555	0.02	< 0.005	—	557
Dust From Material Movemen	—	—	—	—	—	—	0.78	0.78	—	0.31	0.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.42	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	91.9	91.9	< 0.005	< 0.005	—	92.2
Dust From Material Movemen	—	—	—	—	—	—	0.14	0.14	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.84	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	< 0.005	0.01	0.02	200
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.18	0.05	3.34	1.11	0.02	0.05	0.66	0.71	0.03	0.19	0.22	—	2,544	2,544	0.13	0.41	0.14	2,670
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.1	17.1	< 0.005	< 0.005	0.03	17.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	< 0.005	0.28	0.09	< 0.005	< 0.005	0.05	0.06	< 0.005	0.02	0.02	—	214	214	0.01	0.03	0.20	225
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.83	2.83	< 0.005	< 0.005	< 0.005	2.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.4	35.4	< 0.005	0.01	0.03	37.2

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.32	2.97	3.91	0.01	0.11	—	0.11	0.10	—	0.10	—	722	722	0.03	0.01	—	725
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.54	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	—	120	120	< 0.005	< 0.005	—	120
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.80	0.73	0.46	10.2	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	2,007	2,007	0.03	0.07	7.15	2,035
Vendor	0.08	0.03	1.37	0.52	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,120	1,120	0.04	0.18	2.80	1,176
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.68	0.66	0.66	7.59	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,790	1,790	0.04	0.07	0.19	1,813
Vendor	0.07	0.03	1.47	0.53	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,121	1,121	0.04	0.18	0.07	1,174
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.20	0.18	2.33	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	553	553	0.01	0.02	0.93	561
Vendor	0.02	0.01	0.44	0.16	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	338	338	0.01	0.05	0.37	354
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.42	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.6	91.6	< 0.005	< 0.005	0.15	92.9
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	55.9	55.9	< 0.005	0.01	0.06	58.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.39	0.32	2.97	3.91	0.01	0.11	—	0.11	0.10	—	0.10	—	722	722	0.03	0.01	—	725
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.54	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	—	120	120	< 0.005	< 0.005	—	120
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.80	0.73	0.46	10.2	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	2,007	2,007	0.03	0.07	7.15	2,035
Vendor	0.08	0.03	1.37	0.52	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,120	1,120	0.04	0.18	2.80	1,176
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.68	0.66	0.66	7.59	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,790	1,790	0.04	0.07	0.19	1,813
Vendor	0.07	0.03	1.47	0.53	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,121	1,121	0.04	0.18	0.07	1,174
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.20	0.18	2.33	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	553	553	0.01	0.02	0.93	561
Vendor	0.02	0.01	0.44	0.16	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	338	338	0.01	0.05	0.37	354
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.42	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.6	91.6	< 0.005	< 0.005	0.15	92.9
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	55.9	55.9	< 0.005	0.01	0.06	58.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.71	0.70	0.46	9.56	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,972	1,972	0.03	0.07	6.50	2,000
Vendor	0.07	0.03	1.32	0.49	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,098	1,098	0.03	0.17	2.49	1,151
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.58	0.60	7.19	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,760	1,760	0.04	0.07	0.17	1,782
Vendor	0.06	0.03	1.42	0.51	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,099	1,099	0.03	0.17	0.06	1,149
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.41	0.37	5.20	0.00	0.00	1.28	1.28	0.00	0.30	0.30	—	1,289	1,289	0.02	0.05	2.01	1,307
Vendor	0.05	0.02	1.00	0.36	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	785	785	0.02	0.12	0.77	821
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	213	213	< 0.005	0.01	0.33	216
Vendor	0.01	< 0.005	0.18	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	130	130	< 0.005	0.02	0.13	136
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.71	0.70	0.46	9.56	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,972	1,972	0.03	0.07	6.50	2,000
Vendor	0.07	0.03	1.32	0.49	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,098	1,098	0.03	0.17	2.49	1,151
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.58	0.60	7.19	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,760	1,760	0.04	0.07	0.17	1,782

Vendor	0.06	0.03	1.42	0.51	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,099	1,099	0.03	0.17	0.06	1,149
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.41	0.37	5.20	0.00	0.00	1.28	1.28	0.00	0.30	0.30	—	1,289	1,289	0.02	0.05	2.01	1,307
Vendor	0.05	0.02	1.00	0.36	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	785	785	0.02	0.12	0.77	821
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	213	213	< 0.005	0.01	0.33	216
Vendor	0.01	< 0.005	0.18	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	130	130	< 0.005	0.02	0.13	136
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69	0.62	0.40	9.03	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,933	1,933	0.03	0.07	5.88	1,960
Vendor	0.07	0.03	1.27	0.48	0.01	0.02	0.30	0.32	0.01	0.08	0.09	—	1,073	1,073	0.03	0.17	2.21	1,125
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.63	0.56	0.54	6.79	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,725	1,725	0.04	0.07	0.15	1,747
Vendor	0.06	0.03	1.37	0.49	0.01	0.02	0.30	0.32	0.01	0.08	0.09	—	1,073	1,073	0.03	0.17	0.06	1,124
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.40	0.33	4.95	0.00	0.00	1.28	1.28	0.00	0.30	0.30	—	1,267	1,267	0.02	0.05	1.82	1,284
Vendor	0.05	0.02	0.96	0.34	0.01	0.01	0.21	0.23	0.01	0.06	0.06	—	768	768	0.02	0.12	0.68	805
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.90	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	210	210	< 0.005	0.01	0.30	213

Vendor	0.01	< 0.005	0.18	0.06	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	127	127	< 0.005	0.02	0.11	133
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69	0.62	0.40	9.03	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,933	1,933	0.03	0.07	5.88	1,960
Vendor	0.07	0.03	1.27	0.48	0.01	0.02	0.30	0.32	0.01	0.08	0.09	—	1,073	1,073	0.03	0.17	2.21	1,125
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.63	0.56	0.54	6.79	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,725	1,725	0.04	0.07	0.15	1,747
Vendor	0.06	0.03	1.37	0.49	0.01	0.02	0.30	0.32	0.01	0.08	0.09	—	1,073	1,073	0.03	0.17	0.06	1,124
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.40	0.33	4.95	0.00	0.00	1.28	1.28	0.00	0.30	0.30	—	1,267	1,267	0.02	0.05	1.82	1,284
Vendor	0.05	0.02	0.96	0.34	0.01	0.01	0.21	0.23	0.01	0.06	0.06	—	768	768	0.02	0.12	0.68	805
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.90	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	210	210	< 0.005	0.01	0.30	213
Vendor	0.01	< 0.005	0.18	0.06	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	127	127	< 0.005	0.02	0.11	133
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.07	3.11	0.01	0.07	—	0.07	0.06	—	0.06	—	577	577	0.02	< 0.005	—	579
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.57	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.5	95.5	< 0.005	< 0.005	—	95.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.66	0.59	0.39	8.57	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,900	1,900	0.02	0.01	5.29	1,909
Vendor	0.07	0.02	1.22	0.47	0.01	0.01	0.30	0.31	0.01	0.08	0.09	—	1,045	1,045	0.03	0.16	1.94	1,095
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.61	0.54	0.53	6.40	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,695	1,695	0.04	0.07	0.14	1,718

Vendor	0.06	0.02	1.31	0.47	0.01	0.01	0.30	0.31	0.01	0.08	0.09	—	1,046	1,046	0.03	0.16	0.05	1,094
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.11	1.56	0.00	0.00	0.43	0.43	0.00	0.10	0.10	—	418	418	0.01	0.02	0.55	424
Vendor	0.02	0.01	0.31	0.11	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	252	252	0.01	0.04	0.20	263
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.28	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	69.3	69.3	< 0.005	< 0.005	0.09	70.2
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.7	41.7	< 0.005	0.01	0.03	43.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.07	3.11	0.01	0.07	—	0.07	0.06	—	0.06	—	577	577	0.02	< 0.005	—	579
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.57	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.5	95.5	< 0.005	< 0.005	—	95.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.66	0.59	0.39	8.57	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,900	1,900	0.02	0.01	5.29	1,909
Vendor	0.07	0.02	1.22	0.47	0.01	0.01	0.30	0.31	0.01	0.08	0.09	—	1,045	1,045	0.03	0.16	1.94	1,095
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.61	0.54	0.53	6.40	0.00	0.00	1.83	1.83	0.00	0.43	0.43	—	1,695	1,695	0.04	0.07	0.14	1,718
Vendor	0.06	0.02	1.31	0.47	0.01	0.01	0.30	0.31	0.01	0.08	0.09	—	1,046	1,046	0.03	0.16	0.05	1,094
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.11	1.56	0.00	0.00	0.43	0.43	0.00	0.10	0.10	—	418	418	0.01	0.02	0.55	424
Vendor	0.02	0.01	0.31	0.11	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	252	252	0.01	0.04	0.20	263
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.28	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	69.3	69.3	< 0.005	< 0.005	0.09	70.2

Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.7	41.7	< 0.005	0.01	0.03	43.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.34	3.27	< 0.005	0.11	—	0.11	0.10	—	0.10	—	497	497	0.02	< 0.005	—	498
Paving	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.05	0.43	0.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.2	82.2	< 0.005	< 0.005	—	82.5
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.84	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	166	166	< 0.005	0.01	0.59	169
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.63	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	148	148	< 0.005	0.01	0.02	150
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.0	50.0	< 0.005	< 0.005	0.08	50.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.28	8.28	< 0.005	< 0.005	0.01	8.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.34	3.27	< 0.005	0.11	—	0.11	0.10	—	0.10	—	497	497	0.02	< 0.005	—	498
Paving	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.43	0.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.2	82.2	< 0.005	< 0.005	—	82.5
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.84	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	166	166	< 0.005	0.01	0.59	169
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.63	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	148	148	< 0.005	0.01	0.02	150
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.0	50.0	< 0.005	< 0.005	0.08	50.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.28	8.28	< 0.005	< 0.005	0.01	8.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.23	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.6	36.6	< 0.005	< 0.005	—	36.7
Architectural Coatings	1.61	1.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Architectural Coatings	0.29	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.09	2.03	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	401	401	0.01	0.01	1.43	407
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.13	1.52	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	358	358	0.01	0.01	0.04	363
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.42	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	101	101	< 0.005	< 0.005	0.17	102
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	16.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.23	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.6	36.6	< 0.005	< 0.005	—	36.7
Architectural Coatings	1.61	1.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Architectural Coatings	0.29	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.09	2.03	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	401	401	0.01	0.01	1.43	407
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.13	1.52	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	358	358	0.01	0.01	0.04	363
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.42	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	101	101	< 0.005	< 0.005	0.17	102
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	16.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.59	0.80	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.4	95.4	< 0.005	< 0.005	—	95.7
Architectural Coatings	4.20	4.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.11	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Architectural Coatings	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.14	0.09	1.91	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	394	394	0.01	0.01	1.30	400
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.12	1.44	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	352	352	0.01	0.01	0.03	356
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.04	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	258	258	< 0.005	0.01	0.40	261
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.19	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.7	42.7	< 0.005	< 0.005	0.07	43.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.59	0.80	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.4	95.4	< 0.005	< 0.005	—	95.7
Architectural Coatings	4.20	4.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.11	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Architectural Coatings	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.14	0.09	1.91	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	394	394	0.01	0.01	1.30	400
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.12	1.44	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	352	352	0.01	0.01	0.03	356
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.04	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	258	258	< 0.005	0.01	0.40	261
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.19	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.7	42.7	< 0.005	< 0.005	0.07	43.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.58	0.80	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.6	95.6	< 0.005	< 0.005	—	96.0
Architectural Coatings	4.21	4.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.11	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.9
Architectural Coatings	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.08	1.81	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	387	387	0.01	0.01	1.18	392
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.11	1.36	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	345	345	0.01	0.01	0.03	349
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.99	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	253	253	< 0.005	0.01	0.36	257
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	41.9	41.9	< 0.005	< 0.005	0.06	42.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Architectural Coating (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.58	0.80	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.6	95.6	< 0.005	< 0.005	—	96.0
Architectural Coatings	4.21	4.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.11	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.9
Architectural Coatings	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.08	1.81	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	387	387	0.01	0.01	1.18	392
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.11	1.36	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	345	345	0.01	0.01	0.03	349
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.99	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	253	253	< 0.005	0.01	0.36	257
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	41.9	41.9	< 0.005	< 0.005	0.06	42.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Architectural Coating (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.12	0.10	0.79	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.21	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.8	35.8	< 0.005	< 0.005	—	35.9
Architectural Coatings	1.58	1.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.93	5.93	< 0.005	< 0.005	—	5.95
Architectural Coatings	0.29	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

720

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.08	1.71	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	380	380	< 0.005	< 0.005	1.06	382
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.11	1.28	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	339	339	0.01	0.01	0.03	344
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	93.2	93.2	< 0.005	< 0.005	0.12	94.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.02	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Architectural Coating (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.12	0.10	0.79	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	5.88	5.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.21	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.8	35.8	< 0.005	< 0.005	—	35.9
Architectural Coatings	1.58	1.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.93	5.93	< 0.005	< 0.005	—	5.95
Architectural Coatings	0.29	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.08	1.71	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	380	380	< 0.005	< 0.005	1.06	382
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.11	1.28	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	339	339	0.01	0.01	0.03	344
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	93.2	93.2	< 0.005	< 0.005	0.12	94.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.02	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	12.0	10.7	11.4	115	0.28	0.21	24.5	24.7	0.20	6.23	6.43	—	28,988	28,988	1.14	1.28	77.2	29,476
Condo/Townhouse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	2.88	2.58	2.73	27.7	0.07	0.05	5.88	5.93	0.05	1.50	1.54	—	6,958	6,958	0.27	0.31	18.5	7,075
Strip Mall	8.20	7.44	6.94	69.1	0.17	0.12	14.2	14.3	0.12	3.62	3.74	—	16,904	16,904	0.71	0.77	44.8	17,196
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	23.1	20.8	21.1	212	0.52	0.39	44.6	45.0	0.36	11.3	11.7	—	52,850	52,850	2.12	2.36	141	53,748
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	11.2	9.92	13.3	96.8	0.26	0.21	24.5	24.7	0.20	6.23	6.43	—	26,736	26,736	1.23	1.38	2.00	27,181
Condo/Townhouse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	2.69	2.38	3.20	23.2	0.06	0.05	5.88	5.93	0.05	1.50	1.54	—	6,417	6,417	0.30	0.33	0.48	6,524
Strip Mall	7.60	6.81	8.12	59.3	0.15	0.12	14.2	14.3	0.12	3.62	3.74	—	15,598	15,598	0.78	0.83	1.16	15,867
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	21.5	19.1	24.6	179	0.48	0.39	44.6	45.0	0.37	11.3	11.7	—	48,751	48,751	2.31	2.55	3.65	49,572

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	2.04	1.81	2.28	17.6	0.05	0.04	4.37	4.41	0.04	1.11	1.15	—	4,505	4,505	0.19	0.22	5.52	4,581
Condo/Townhouse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	0.49	0.43	0.55	4.23	0.01	0.01	1.05	1.06	0.01	0.27	0.28	—	1,081	1,081	0.05	0.05	1.33	1,100
Strip Mall	1.38	1.24	1.39	10.7	0.03	0.02	2.54	2.56	0.02	0.65	0.67	—	2,628	2,628	0.12	0.13	3.21	2,674
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.91	3.48	4.22	32.5	0.09	0.07	7.96	8.03	0.07	2.02	2.09	—	8,214	8,214	0.36	0.41	10.1	8,354

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	12.0	10.7	11.4	115	0.28	0.21	24.5	24.7	0.20	6.23	6.43	—	28,988	28,988	1.14	1.28	77.2	29,476
Condo/Townhouse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	2.88	2.58	2.73	27.7	0.07	0.05	5.88	5.93	0.05	1.50	1.54	—	6,958	6,958	0.27	0.31	18.5	7,075
Strip Mall	8.20	7.44	6.94	69.1	0.17	0.12	14.2	14.3	0.12	3.62	3.74	—	16,904	16,904	0.71	0.77	44.8	17,196

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	23.1	20.8	21.1	212	0.52	0.39	44.6	45.0	0.36	11.3	11.7	—	52,850	52,850	2.12	2.36	141	53,748
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	11.2	9.92	13.3	96.8	0.26	0.21	24.5	24.7	0.20	6.23	6.43	—	26,736	26,736	1.23	1.38	2.00	27,181
Condo/Townhouse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	2.69	2.38	3.20	23.2	0.06	0.05	5.88	5.93	0.05	1.50	1.54	—	6,417	6,417	0.30	0.33	0.48	6,524
Strip Mall	7.60	6.81	8.12	59.3	0.15	0.12	14.2	14.3	0.12	3.62	3.74	—	15,598	15,598	0.78	0.83	1.16	15,867
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	21.5	19.1	24.6	179	0.48	0.39	44.6	45.0	0.37	11.3	11.7	—	48,751	48,751	2.31	2.55	3.65	49,572
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	2.04	1.81	2.28	17.6	0.05	0.04	4.37	4.41	0.04	1.11	1.15	—	4,505	4,505	0.19	0.22	5.52	4,581
Condo/Townhouse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	0.49	0.43	0.55	4.23	0.01	0.01	1.05	1.06	0.01	0.27	0.28	—	1,081	1,081	0.05	0.05	1.33	1,100
Strip Mall	1.38	1.24	1.39	10.7	0.03	0.02	2.54	2.56	0.02	0.65	0.67	—	2,628	2,628	0.12	0.13	3.21	2,674
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.91	3.48	4.22	32.5	0.09	0.07	7.96	8.03	0.07	2.02	2.09	—	8,214	8,214	0.36	0.41	10.1	8,354

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	896	896	0.14	0.02	—	905
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	164	164	0.03	< 0.005	—	166
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	212	212	0.03	< 0.005	—	214
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	180	180	0.03	< 0.005	—	182
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	85.3	85.3	0.01	< 0.005	—	86.1
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,538	1,538	0.25	0.03	—	1,553
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	896	896	0.14	0.02	—	905

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	—	164	164	0.03	< 0.005	—	166
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	212	212	0.03	< 0.005	—	214
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	180	180	0.03	< 0.005	—	182
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	85.3	85.3	0.01	< 0.005	—	86.1
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,538	1,538	0.25	0.03	—	1,553
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	150
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	27.2	27.2	< 0.005	< 0.005	—	27.5
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	35.1	35.1	0.01	< 0.005	—	35.5
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	29.8	29.8	< 0.005	< 0.005	—	30.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	14.1	14.1	< 0.005	< 0.005	—	14.3
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	255	255	0.04	< 0.005	—	257

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	212	212	0.03	< 0.005	—	214
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	180	180	0.03	< 0.005	—	182
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	85.3	85.3	0.01	< 0.005	—	86.1
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	478	478	0.08	0.01	—	482
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	212	212	0.03	< 0.005	—	214
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	180	180	0.03	< 0.005	—	182
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	85.3	85.3	0.01	< 0.005	—	86.1
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	478	478	0.08	0.01	—	482

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	35.1	35.1	0.01	< 0.005	—	35.5
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	29.8	29.8	< 0.005	< 0.005	—	30.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	14.1	14.1	< 0.005	< 0.005	—	14.3
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	79.1	79.1	0.01	< 0.005	—	79.8

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.16	0.08	1.38	0.59	0.01	0.11	—	0.11	0.11	—	0.11	—	1,753	1,753	0.16	< 0.005	—	1,758
Condo/Townhouse	0.04	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	424	424	0.04	< 0.005	—	425
Apartments Mid Rise	0.03	0.02	0.29	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	371	371	0.03	< 0.005	—	372
Strip Mall	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	103

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	2,650	2,650	0.23	< 0.005	—	2,658
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.16	0.08	1.38	0.59	0.01	0.11	—	0.11	0.11	—	0.11	—	1,753	1,753	0.16	< 0.005	—	1,758
Condo/Townhouse	0.04	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	424	424	0.04	< 0.005	—	425
Apartments Mid Rise	0.03	0.02	0.29	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	371	371	0.03	< 0.005	—	372
Strip Mall	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	103
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	2,650	2,650	0.23	< 0.005	—	2,658
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.03	0.01	0.25	0.11	< 0.005	0.02	—	0.02	0.02	—	0.02	—	290	290	0.03	< 0.005	—	291
Condo/Townhouse	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	70.2	70.2	0.01	< 0.005	—	70.4
Apartments Mid Rise	0.01	< 0.005	0.05	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	61.5	61.5	0.01	< 0.005	—	61.6
Strip Mall	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.9	16.9	< 0.005	< 0.005	—	17.0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.16	0.08	1.38	0.59	0.01	0.11	—	0.11	0.11	—	0.11	—	1,753	1,753	0.16	< 0.005	—	1,758
Condo/Townhouse	0.04	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	424	424	0.04	< 0.005	—	425
Apartments Mid Rise	0.03	0.02	0.29	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	371	371	0.03	< 0.005	—	372
Strip Mall	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	103
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	2,650	2,650	0.23	< 0.005	—	2,658
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.16	0.08	1.38	0.59	0.01	0.11	—	0.11	0.11	—	0.11	—	1,753	1,753	0.16	< 0.005	—	1,758
Condo/Townhouse	0.04	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	424	424	0.04	< 0.005	—	425

Apartme Mid Rise	0.03	0.02	0.29	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	371	371	0.03	< 0.005	—	372
Strip Mall	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	103
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.12	2.09	0.93	0.01	0.17	—	0.17	0.17	—	0.17	—	2,650	2,650	0.23	< 0.005	—	2,658
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.03	0.01	0.25	0.11	< 0.005	0.02	—	0.02	0.02	—	0.02	—	290	290	0.03	< 0.005	—	291
Condo/Townhouse	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	70.2	70.2	0.01	< 0.005	—	70.4
Apartments Mid Rise	0.01	< 0.005	0.05	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	61.5	61.5	0.01	< 0.005	—	61.6
Strip Mall	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.9	16.9	< 0.005	< 0.005	—	17.0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Consum Products	11.8	11.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	1.16	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipme nt	2.00	1.88	0.19	20.3	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.5	56.5	< 0.005	< 0.005	—	56.7
Total	15.0	14.9	0.19	20.3	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	56.5	56.5	< 0.005	< 0.005	—	56.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consum er Products	11.8	11.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	1.16	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	13.0	13.0	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consum er Products	2.16	2.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	0.21	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipme nt	0.18	0.17	0.02	1.83	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.61	4.61	< 0.005	< 0.005	—	4.63
Total	2.55	2.54	0.02	1.83	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.61	4.61	< 0.005	< 0.005	—	4.63

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	11.8	11.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.16	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.00	1.88	0.19	20.3	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.5	56.5	< 0.005	< 0.005	—	56.7
Total	15.0	14.9	0.19	20.3	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	56.5	56.5	< 0.005	< 0.005	—	56.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	11.8	11.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.16	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	13.0	13.0	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Consumer Products	2.16	2.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.21	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.18	0.17	0.02	1.83	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.61	4.61	< 0.005	< 0.005	—	4.63
Total	2.55	2.54	0.02	1.83	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.61	4.61	< 0.005	< 0.005	—	4.63

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	12.6	11.8	24.4	1.29	0.03	—	65.8
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.81	3.98	7.79	0.39	0.01	—	20.4
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5.61	5.49	11.1	0.58	0.01	—	29.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.25	4.97	10.2	0.54	0.01	—	27.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	7.83	7.83	< 0.005	< 0.005	—	7.91

Total	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	12.6	11.8	24.4	1.29	0.03	—	65.8
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.81	3.98	7.79	0.39	0.01	—	20.4
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5.61	5.49	11.1	0.58	0.01	—	29.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.25	4.97	10.2	0.54	0.01	—	27.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	7.83	7.83	< 0.005	< 0.005	—	7.91
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.08	1.96	4.04	0.21	0.01	—	10.9
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	0.63	0.66	1.29	0.06	< 0.005	—	3.37
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.93	0.91	1.84	0.10	< 0.005	—	4.91
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.87	0.82	1.69	0.09	< 0.005	—	4.56
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	1.30	1.30	< 0.005	< 0.005	—	1.31
Total	—	—	—	—	—	—	—	—	—	—	—	4.51	5.64	10.2	0.46	0.01	—	25.0

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	12.6	11.8	24.4	1.29	0.03	—	65.8
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.81	3.98	7.79	0.39	0.01	—	20.4
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5.61	5.49	11.1	0.58	0.01	—	29.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.25	4.97	10.2	0.54	0.01	—	27.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	7.83	7.83	< 0.005	< 0.005	—	7.91
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	12.6	11.8	24.4	1.29	0.03	—	65.8
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.81	3.98	7.79	0.39	0.01	—	20.4
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5.61	5.49	11.1	0.58	0.01	—	29.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.25	4.97	10.2	0.54	0.01	—	27.5

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	7.83	7.83	< 0.005	< 0.005	—	7.91
Total	—	—	—	—	—	—	—	—	—	—	—	27.2	34.1	61.3	2.80	0.07	—	151
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.08	1.96	4.04	0.21	0.01	—	10.9
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	0.63	0.66	1.29	0.06	< 0.005	—	3.37
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.93	0.91	1.84	0.10	< 0.005	—	4.91
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.87	0.82	1.69	0.09	< 0.005	—	4.56
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	1.30	1.30	< 0.005	< 0.005	—	1.31
Total	—	—	—	—	—	—	—	—	—	—	—	4.51	5.64	10.2	0.46	0.01	—	25.0

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	66.4	0.00	66.4	6.64	0.00	—	232

Condo/T	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.5
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	33.5	0.00	33.5	3.35	0.00	—	117
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.42	0.00	0.42	0.04	0.00	—	1.48
Total	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	66.4	0.00	66.4	6.64	0.00	—	232
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.5
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	33.5	0.00	33.5	3.35	0.00	—	117
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.42	0.00	0.42	0.04	0.00	—	1.48
Total	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.10	0.00	—	38.5
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.76	0.00	3.76	0.38	0.00	—	13.2

Apartme Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5.55	0.00	5.55	0.55	0.00	—	19.4
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.47	0.00	3.47	0.35	0.00	—	12.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.07	0.00	0.07	0.01	0.00	—	0.24
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	0.00	23.8	2.38	0.00	—	83.4

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	66.4	0.00	66.4	6.64	0.00	—	232
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.5
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	33.5	0.00	33.5	3.35	0.00	—	117
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.42	0.00	0.42	0.04	0.00	—	1.48
Total	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	66.4	0.00	66.4	6.64	0.00	—	232
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.5
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	33.5	0.00	33.5	3.35	0.00	—	117
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.42	0.00	0.42	0.04	0.00	—	1.48
Total	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.10	0.00	—	38.5
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.76	0.00	3.76	0.38	0.00	—	13.2
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5.55	0.00	5.55	0.55	0.00	—	19.4
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.47	0.00	3.47	0.35	0.00	—	12.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.07	0.00	0.07	0.01	0.00	—	0.24
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	0.00	23.8	2.38	0.00	—	83.4

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.63	2.63
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.23	0.23
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.63	2.63
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.23	0.23
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.64	0.64

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.63	2.63
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.23	0.23
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.63	2.63
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.23	0.23
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.64	0.64

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	8/1/2025	8/28/2025	5.00	20.0	—
Grading	Grading	8/29/2025	2/12/2026	5.00	120	—
Building Construction	Building Construction	7/31/2026	5/3/2029	5.00	720	—
Paving	Paving	2/13/2026	7/30/2026	5.00	120	—

Architectural Coating	Architectural Coating	8/14/2026	5/17/2029	5.00	720	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	36.5	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	181	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	41.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	36.2	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	36.5	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	181	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	41.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	36.2	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	1,028,012	342,671	55,500	18,500	10,454

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	30.0	0.00	—
Grading	35,000	—	360	0.00	—
Paving	0.00	0.00	0.00	0.00	6.07

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	2.07	0%
Condo/Townhouse	—	0%
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Parking Lot	4.00	100%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005
2028	0.00	204	0.03	< 0.005
2029	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	2,401	2,401	2,401	876,277	34,349	34,349	34,349	12,537,371
Condo/Townhouse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	576	576	576	210,328	8,245	8,245	8,245	3,009,270
Strip Mall	1,791	1,791	1,791	653,777	19,945	19,945	19,945	7,279,902
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	2,401	2,401	2,401	876,277	34,349	34,349	34,349	12,537,371
Condo/Townhouse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apartments Mid Rise	576	576	576	210,328	8,245	8,245	8,245	3,009,270
Strip Mall	1,791	1,791	1,791	653,777	19,945	19,945	19,945	7,279,902
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	188
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	57
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—

Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	84
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	188
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0

No Fireplaces	57
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	84
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
1028011.5	342,671	55,500	18,500	10,454

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	1,602,833	204	0.0330	0.0040	5,468,925
Condo/Townhouse	294,072	204	0.0330	0.0040	1,323,537
Apartments Mid Rise	379,496	204	0.0330	0.0040	1,158,569
Strip Mall	322,347	204	0.0330	0.0040	319,147
Parking Lot	152,634	204	0.0330	0.0040	0.00
City Park	0.00	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	0.00	204	0.0330	0.0040	5,468,925
Condo/Townhouse	< 0.005	204	0.0330	0.0040	1,323,537
Apartments Mid Rise	379,496	204	0.0330	0.0040	1,158,569
Strip Mall	322,347	204	0.0330	0.0040	319,147
Parking Lot	152,634	204	0.0330	0.0040	0.00
City Park	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

763

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	6,557,670	374,161
Condo/Townhouse	1,988,230	550,807
Apartments Mid Rise	2,930,023	405,320
Strip Mall	2,740,683	187,070
Parking Lot	0.00	0.00
City Park	0.00	8,692,035

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	6,557,670	374,161
Condo/Townhouse	1,988,230	550,807
Apartments Mid Rise	2,930,023	405,320
Strip Mall	2,740,683	187,070
Parking Lot	0.00	0.00
City Park	0.00	8,692,035

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	123	—
Condo/Townhouse	42.2	—
Apartments Mid Rise	62.2	—
Strip Mall	38.9	—

Parking Lot	0.00	—
City Park	0.78	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	123	—
Condo/Townhouse	42.2	—
Apartments Mid Rise	62.2	—
Strip Mall	38.9	—
Parking Lot	0.00	—
City Park	0.78	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

767

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

768

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Land Use	Information adjusted to represent project-specific information provided by applicant.
Construction: Construction Phases	Site undeveloped; demolition not required. Phase timing based on applicant-provided questionnaire. Based on typical construction practices, architectural Coating assumed to start two weeks after the initiation of building construction and last for the same duration.
Operations: Vehicle Data	Based on trip rate info provided from Fehr & Peers. Single-family used to represent trips/VMT generated by the single-family residences and townhomes.
Construction: On-Road Fugitive Dust	All roads in project vicinity are paved.
Operations: Road Dust	All roads in project vicinity are paved.

AERMOD Model Options

Model Options

Pathway	Keyword	Description	Value
CO	TITLEONE	Project title 1	Farmstead Subdivision Project
CO	TITLETWO	Project title 2	
CO	MODELOPT	Model options	DFAULT,CONC,NODRYDPLT,NOWETDPLT
CO	AVERTIME	Averaging times	1,ANNUAL
CO	URBANOPT	Urban options	
CO	POLLUTID	Pollutant ID	PM25 H1H
CO	HALFLIFE	Half life	
CO	DCAYCOEF	Decay coefficient	
CO	FLAGPOLE	Flagpole receptor heights	1.8
CO	RUNORNOT	Run or Not	RUN
CO	EVENTFIL	Event file	F
CO	SAVEFILE	Save file	F
CO	INITFILE	Initialization file	
CO	MULTYEAR	Multiple year option	N/A
CO	DEBUGOPT	Debug options	N/A
CO	ERRORFIL	Error file	F
SO	ELEVUNIT	Elevation units	METERS
SO	EMISUNIT	Emission units	N/A
RE	ELEVUNIT	Elevation units	METERS
ME	SURFFILE	Surface met file	I:\Projects\Active\Winters\Farmstead\Tech Reports\AQ.GHG\Construction HRA\Nut Tree.SFC
ME	PROFFILE	Profile met file	I:\Projects\Active\Winters\Farmstead\Tech Reports\AQ.GHG\Construction HRA\Nut Tree.PFL
ME	SURFDATA	Surf met data info.	93241 2009
ME	UAIRDATA	U-Air met data info.	23230 2009
ME	SITEDATA	On-site met data info.	
ME	PROFBASE	Elev. above MSL	36
ME	STARTEND	Start-end met dates	
ME	WDROTATE	Wind dir. rot. adjust.	
ME	WINDCATS	Wind speed cat. max.	
ME	SCIMBYHR	SCIM sample params	
EV	DAYTABLE	Print summary opt.	N/A
OU	EVENTOUT	Output info. level	N/A

OU	DAYTABLE	Print summary opt.	

Source Parameter Tables

All Sources

Source ID / Pollutant ID	Source Type	Description	UTM		Elev.	Emiss. Rate	Emiss. Units	Release Height
			East (m)	North (m)	(m)			(m)
9HLJS001	VOLUME		590309	4264896.8	0	0.000037766353146	(g/s)	5
9HLJS002	VOLUME		590372.6	4264896.8	0	0.000037766353146	(g/s)	5
9HLJS003	VOLUME		590309	4264960.4	0	0.000037766353146	(g/s)	5
9HLJS004	VOLUME		590372.6	4264960.4	0	0.000037766353146	(g/s)	5
9HLJS005	VOLUME		590436.2	4264960.4	0	0.000037766353146	(g/s)	5
9HLJS006	VOLUME		590499.9	4264960.4	0	0.000037766353146	(g/s)	5
9HLJS007	VOLUME		590309	4265024	0	0.000037766353146	(g/s)	5
9HLJS008	VOLUME		590372.6	4265024	0	0.000037766353146	(g/s)	5
9HLJS009	VOLUME		590436.2	4265024	0	0.000037766353146	(g/s)	5
9HLJS00A	VOLUME		590499.9	4265024	0	0.000037766353146	(g/s)	5
9HLJS00B	VOLUME		590563.5	4265024	0	0.000037766353146	(g/s)	5
9HLJS00C	VOLUME		590627.1	4265024	0	0.000037766353146	(g/s)	5
9HLJS00D	VOLUME		590309	4265087.7	0	0.000037766353146	(g/s)	5
9HLJS00E	VOLUME		590372.6	4265087.7	0	0.000037766353146	(g/s)	5
9HLJS00F	VOLUME		590436.2	4265087.7	0	0.000037766353146	(g/s)	5
9HLJS00G	VOLUME		590499.9	4265087.7	0	0.000037766353146	(g/s)	5
9HLJS00H	VOLUME		590563.5	4265087.7	0	0.000037766353146	(g/s)	5
9HLJS00I	VOLUME		590627.1	4265087.7	0	0.000037766353146	(g/s)	5
9HLJS00J	VOLUME		590690.7	4265087.7	0	0.000037766353146	(g/s)	5
9HLJS00K	VOLUME		590754.3	4265087.7	0	0.000037766353146	(g/s)	5
9HLJS00L	VOLUME		590309	4265151.3	0	0.000037766353146	(g/s)	5
9HLJS00M	VOLUME		590372.6	4265151.3	0	0.000037766353146	(g/s)	5
9HLJS00N	VOLUME		590436.2	4265151.3	0	0.000037766353146	(g/s)	5
9HLJS00O	VOLUME		590499.9	4265151.3	0	0.000037766353146	(g/s)	5
9HLJS00P	VOLUME		590563.5	4265151.3	0	0.000037766353146	(g/s)	5
9HLJS00Q	VOLUME		590627.1	4265151.3	0	0.000037766353146	(g/s)	5
9HLJS00R	VOLUME		590690.7	4265151.3	0	0.000037766353146	(g/s)	5
9HLJS00S	VOLUME		590754.3	4265151.3	0	0.000037766353146	(g/s)	5
9HLJS00T	VOLUME		590309	4265214.9	0	0.000037766353146	(g/s)	5
9HLJS00U	VOLUME		590372.6	4265214.9	0	0.000037766353146	(g/s)	5
9HLJS00V	VOLUME		590436.2	4265214.9	0	0.000037766353146	(g/s)	5
9HLJS00W	VOLUME		590499.9	4265214.9	0	0.000037766353146	(g/s)	5
9HLJS00X	VOLUME		590563.5	4265214.9	0	0.000037766353146	(g/s)	5
9HLJS00Y	VOLUME		590627.1	4265214.9	0	0.000037766353146	(g/s)	5

9HLJS00Z	VOLUME		590690.7	4265214.9	0	0.000037766353146	(g/s)	5
9HLJS010	VOLUME		590754.3	4265214.9	0	0.000037766353146	(g/s)	5
9HLJS011	VOLUME		590309	4265278.5	0	0.000037766353146	(g/s)	5
9HLJS012	VOLUME		590372.6	4265278.5	0	0.000037766353146	(g/s)	5
9HLJS013	VOLUME		590436.2	4265278.5	0	0.000037766353146	(g/s)	5
9HLJS014	VOLUME		590499.9	4265278.5	0	0.000037766353146	(g/s)	5
9HLJS015	VOLUME		590563.5	4265278.5	0	0.000037766353146	(g/s)	5
9HLJS016	VOLUME		590627.1	4265278.5	0	0.000037766353146	(g/s)	5
9HLJS017	VOLUME		590690.7	4265278.5	0	0.000037766353146	(g/s)	5
9HLJS018	VOLUME		590754.3	4265278.5	0	0.000037766353146	(g/s)	5
9HLJS019	VOLUME		590309	4265342.1	0	0.000037766353146	(g/s)	5
9HLJS01A	VOLUME		590372.6	4265342.1	0	0.000037766353146	(g/s)	5
9HLJS01B	VOLUME		590436.2	4265342.1	0	0.000037766353146	(g/s)	5
9HLJS01C	VOLUME		590499.9	4265342.1	0	0.000037766353146	(g/s)	5
9HLJS01D	VOLUME		590563.5	4265342.1	0	0.000037766353146	(g/s)	5
9HLJS01E	VOLUME		590627.1	4265342.1	0	0.000037766353146	(g/s)	5
9HLJS01F	VOLUME		590690.7	4265342.1	0	0.000037766353146	(g/s)	5
9HLJS01G	VOLUME		590754.3	4265342.1	0	0.000037766353146	(g/s)	5
9HLJS01H	VOLUME		590309	4265405.7	0	0.000037766353146	(g/s)	5
9HLJS01I	VOLUME		590372.6	4265405.7	0	0.000037766353146	(g/s)	5
9HLJS01J	VOLUME		590436.2	4265405.7	0	0.000037766353146	(g/s)	5
9HLJS01K	VOLUME		590499.9	4265405.7	0	0.000037766353146	(g/s)	5
9HLJS01L	VOLUME		590563.5	4265405.7	0	0.000037766353146	(g/s)	5
9HLJS01M	VOLUME		590627.1	4265405.7	0	0.000037766353146	(g/s)	5
9HLJS01N	VOLUME		590690.7	4265405.7	0	0.000037766353146	(g/s)	5
9HLJS01O	VOLUME		590754.3	4265405.7	0	0.000037766353146	(g/s)	5

Volume Sources

Source ID / Pollutant ID	Description	UTM		Elev.	Emiss. Rate	Release Height	Init. Lat. Dim.	Init. Vert. Dim.
		East (m)	North (m)	(m)	(g/s)	(m)	(m)	(m)
9HLJS001		590309	4264896.8	0	0.000037766353146	5	29.59	1
9HLJS002		590372.6	4264896.8	0	0.000037766353146	5	29.59	1
9HLJS003		590309	4264960.4	0	0.000037766353146	5	29.59	1
9HLJS004		590372.6	4264960.4	0	0.000037766353146	5	29.59	1
9HLJS005		590436.2	4264960.4	0	0.000037766353146	5	29.59	1
9HLJS006		590499.9	4264960.4	0	0.000037766353146	5	29.59	1
9HLJS007		590309	4265024	0	0.000037766353146	5	29.59	1
9HLJS008		590372.6	4265024	0	0.000037766353146	5	29.59	1
9HLJS009		590436.2	4265024	0	0.000037766353146	5	29.59	1
9HLJS00A		590499.9	4265024	0	0.000037766353146	5	29.59	1
9HLJS00B		590563.5	4265024	0	0.000037766353146	5	29.59	1
9HLJS00C		590627.1	4265024	0	0.000037766353146	5	29.59	1
9HLJS00D		590309	4265087.7	0	0.000037766353146	5	29.59	1
9HLJS00E		590372.6	4265087.7	0	0.000037766353146	5	29.59	1

9HLJS00F		590436.2	4265087.7	0	0.000037766353146	5	29.59	1
9HLJS00G		590499.9	4265087.7	0	0.000037766353146	5	29.59	1
9HLJS00H		590563.5	4265087.7	0	0.000037766353146	5	29.59	1
9HLJS00I		590627.1	4265087.7	0	0.000037766353146	5	29.59	1
9HLJS00J		590690.7	4265087.7	0	0.000037766353146	5	29.59	1
9HLJS00K		590754.3	4265087.7	0	0.000037766353146	5	29.59	1
9HLJS00L		590309	4265151.3	0	0.000037766353146	5	29.59	1
9HLJS00M		590372.6	4265151.3	0	0.000037766353146	5	29.59	1
9HLJS00N		590436.2	4265151.3	0	0.000037766353146	5	29.59	1
9HLJS00O		590499.9	4265151.3	0	0.000037766353146	5	29.59	1
9HLJS00P		590563.5	4265151.3	0	0.000037766353146	5	29.59	1
9HLJS00Q		590627.1	4265151.3	0	0.000037766353146	5	29.59	1
9HLJS00R		590690.7	4265151.3	0	0.000037766353146	5	29.59	1
9HLJS00S		590754.3	4265151.3	0	0.000037766353146	5	29.59	1
9HLJS00T		590309	4265214.9	0	0.000037766353146	5	29.59	1
9HLJS00U		590372.6	4265214.9	0	0.000037766353146	5	29.59	1
9HLJS00V		590436.2	4265214.9	0	0.000037766353146	5	29.59	1
9HLJS00W		590499.9	4265214.9	0	0.000037766353146	5	29.59	1
9HLJS00X		590563.5	4265214.9	0	0.000037766353146	5	29.59	1
9HLJS00Y		590627.1	4265214.9	0	0.000037766353146	5	29.59	1
9HLJS00Z		590690.7	4265214.9	0	0.000037766353146	5	29.59	1
9HLJS010		590754.3	4265214.9	0	0.000037766353146	5	29.59	1
9HLJS011		590309	4265278.5	0	0.000037766353146	5	29.59	1
9HLJS012		590372.6	4265278.5	0	0.000037766353146	5	29.59	1
9HLJS013		590436.2	4265278.5	0	0.000037766353146	5	29.59	1
9HLJS014		590499.9	4265278.5	0	0.000037766353146	5	29.59	1
9HLJS015		590563.5	4265278.5	0	0.000037766353146	5	29.59	1
9HLJS016		590627.1	4265278.5	0	0.000037766353146	5	29.59	1
9HLJS017		590690.7	4265278.5	0	0.000037766353146	5	29.59	1
9HLJS018		590754.3	4265278.5	0	0.000037766353146	5	29.59	1
9HLJS019		590309	4265342.1	0	0.000037766353146	5	29.59	1
9HLJS01A		590372.6	4265342.1	0	0.000037766353146	5	29.59	1
9HLJS01B		590436.2	4265342.1	0	0.000037766353146	5	29.59	1
9HLJS01C		590499.9	4265342.1	0	0.000037766353146	5	29.59	1
9HLJS01D		590563.5	4265342.1	0	0.000037766353146	5	29.59	1
9HLJS01E		590627.1	4265342.1	0	0.000037766353146	5	29.59	1
9HLJS01F		590690.7	4265342.1	0	0.000037766353146	5	29.59	1
9HLJS01G		590754.3	4265342.1	0	0.000037766353146	5	29.59	1
9HLJS01H		590309	4265405.7	0	0.000037766353146	5	29.59	1
9HLJS01I		590372.6	4265405.7	0	0.000037766353146	5	29.59	1
9HLJS01J		590436.2	4265405.7	0	0.000037766353146	5	29.59	1
9HLJS01K		590499.9	4265405.7	0	0.000037766353146	5	29.59	1
9HLJS01L		590563.5	4265405.7	0	0.000037766353146	5	29.59	1
9HLJS01M		590627.1	4265405.7	0	0.000037766353146	5	29.59	1
9HLJS01N		590690.7	4265405.7	0	0.000037766353146	5	29.59	1
9HLJS01O		590754.3	4265405.7	0	0.000037766353146	5	29.59	1

BREEZE AERMOD Model Results

Max. Annual (5 YEARS) Results of Pollutant: PM25 (ug/m**3)

Group ID	High	Avg. Conc.	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
			East (m)	North (m)	(m)	(m)	(m)		
ALL	1ST	0.01138	590729.30	4265467.30	0.00	0.00	1.80	DC	
	2ND	0.01045	590729.30	4265477.30	0.00	0.00	1.80	DC	
	3RD	0.00938	590739.30	4265467.30	0.00	0.00	1.80	DC	
	4TH	0.00728	590819.10	4265175.90	0.00	0.00	1.80	DC	
	5TH	0.00707	590819.10	4265165.90	0.00	0.00	1.80	DC	
	6TH	0.00682	590819.10	4265155.90	0.00	0.00	1.80	DC	
	7TH	0.00606	590247.30	4265193.60	0.00	0.00	1.80	DC	
	8TH	0.00605	590247.30	4265183.60	0.00	0.00	1.80	DC	
	9TH	0.00604	590247.30	4265173.60	0.00	0.00	1.80	DC	
	10TH	0.00603	590247.30	4265243.60	0.00	0.00	1.80	DC	

Highest Results of Pollutant: PM25

Avg. Per.	Grp ID	High	Type	Val	Units	Date	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
						YYMMDDHH	East (m)	North (m)	(m)	(m)	(m)		
1-HR	ALL	1ST	Avg. Conc.	0.53327	ug/m**3	13120518	590729.30	4265467.30	0.00	0.00	1.80	DC	

Summary of Total Messages

#	Message Type
0	Fatal Error Message(s)
4	Warning Message(s)
17402	Informational Message(s)
43872	Hours Were Processed
13906	Calm Hours Identified
3496	Missing Hours Identified (7.97 Percent)

Error & Warning Messages

Msg. Type	Pathway	Ref. #	Description
WARNING	CO	W276	Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled PM25 H1H
WARNING	CO	W363	Multiyr 24h/Ann PM25 processing not applicable for PM25 H1H

WARNING	OU	W565	Possible Conflict With Dynamically Allocated FUNIT PLOTFILE
WARNING	MX	W481	Data Remaining After End of Year. Number of Hours= 48

www.breeze-software.com

*HARP - HRACalc v22118 6/19/2024 12:33:08 PM - Cancer Risk - Input File: C:\Users\jfahrney\Desktop\HARP Results\Farmstead_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	WATER_RISK	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_RISK	EGG_RISK	1ST_DRIVER	2ND_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
1			9901	DieselExhPM	0.01138	4.67E-06	3.75YrCancerHighEnd_Inh_FAH16to70	*	4.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v22118 6/19/2024 12:33:08 PM - Chronic Risk - Input File: C:\Users\jfahrney\Desktop\HARP Results\Farmstead_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
1			9901	DieselExhPM	0.01138	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	"	1.14E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v22118 6/19/2024 12:33:08 PM - Acute Risk - Input File: C:\Users\jfahrney\Desktop\HARP Results\Farmstead_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
1			9901	DieselExhPM	0.53327	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Appendix D



Special-Status Plant Survey Report

Winters 61

Yolo County, California
June 2018

MADRONE ECOLOGICAL CONSULTING

Prepared for:
Mark Skreden
Skreden Commercial Real Estate
1515 Response Road
Sacramento, CA 95815

Recommended Citation:
Madrone Ecological Consulting, LLC (Madrone). 2018. *Special-Status Plant Survey Report for Winters 61*. Prepared for Skreden Commercial Real Estate. Published on 28 June 2018.

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Winters 61

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Figure 2. Aquatic Resources

Figure 3. Natural Resources Conservation Service Soils

Attachments:

Attachment A: Biologist Qualifications

Attachment B: Plant Species Observed within the Winters 61 Study Area

1.0 INTRODUCTION

This report presents the results of a special-status plant survey conducted for the Winters 61 Property (Study Area) by Madrone Ecological Consulting, LLC (Madrone). The approximately 61-acre Study Area is located in Winters, north of the intersection of East Main Street and East Grant Avenue. The Study Area is located in Section 22, Township 8 North, Range 1 West of the "Winters, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 1953) (**Figure 1**).

2.0 METHODOLOGY

Madrone Ecological Consulting, LLC (Madrone) biologists Bonnie Peterson and Matt Shaffer conducted a special-status plant survey of the Study Area on 13 April 2018 in accordance with the U.S. Fish and Wildlife Service's *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 1996), California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2009), and the *CNPS Botanical Survey Guidelines* (CNPS 2001).

A list of special-status plant species with potential to occur within the Study Area was developed by reviewing the following literature, and then refining the list based on habitats present within the Study Area:

- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2018) query of CRPR Lists 1A, 1B, 2A, and 2B within the "Winters, California" USGS topo quadrangle, and the eight surrounding quadrangles; and
- the California Natural Diversity Database occurrences of special-status plant species within 5 miles of the Study Area (CNDDB 2018).

The target species for this survey were:

- Recurved larkspur (*Delphinium recurvatum*)
- Dwarf downingia (*Downingia pusilla*)
- Bearded popcornflower (*Plagiobothrys hystriculus*)

Meandering pedestrian surveys were conducted throughout all portions of the Study Area that represented potential habitat. The surveys were floristic in nature, which means that all plant species observed on-site were identified to the taxonomic level necessary to determine rarity. Thus, if a special-status plant was present but not on the target list, it would have been detected and documented. Plant taxonomy was based on the nomenclature in the *Jepson eFlora* (Jepson Flora Project 2018). Vegetation communities were classified according to the *Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Qualifications for the biologist that conducted the surveys are included in **Attachment A** and a comprehensive list of all plant species observed during the survey of the Study Area is included in **Attachment B**.

3.0 GENERAL SITE CONDITIONS AND HABITAT

The Study Area is an undeveloped agricultural field that is used for annual row crops and was fallow during the April survey. The Study Area is bordered by East Grant Avenue on the south and single-family residential development on the west. An almond orchard is located on the property to the north and northeast. The abutting parcel to the east previously contained an almond orchard, which was removed and the area is now fallow. Low density rural residential homes are also located east of the Study Area. The Study Area is situated on flat terrain at an elevation of approximately 125 feet and has been leveled to facilitate flood irrigation. Based on a review of historic aerial photos (Google Earth 2018), the area appears to have been farmed since at least 1993.

Vegetation within the Study Area consists primarily of ruderal non-native species including alfalfa (*Medicago sativa*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), perennial rye grass (*Festuca perennis*), and slender wild oat (*Avena barbata*). The perimeter of the site contains numerous trees and shrubs, including valley oak (*Quercus lobata*), paradox walnut (*Juglans x paradox*), and English walnut (*Juglans regia*) along the southern border, and olive (*Olea europaea*), and common fig (*Ficus carica)*. Volunteer domestic almond (*Prunus dulcis*) line the east, north, and west edges. Two large coast redwoods (*Sequoia sempervirens*) are located in the southern parking/staging area.

3.1 Terrestrial Plant Communities

3.1.1 Annual Brome Grassland

The annual brome grassland within the Study Area is dominated by non-native annual grasses and forbs, such as soft brome (*Bromus hordeaceus*), ripgut brome, slender wild oat, perennial ryegrass, and yellow star-thistle (*Centaurea solstitialis*). Other species commonly occurring in this community on-site include alfalfa, black mustard, English plantain (*Plantago lanceolata*), foxtail barley (*Hordeum murinum*), redstem filaree (*Erodeum cicutarium*), broad leaf filaree (*Erodium botrys*), cut-leaf geranium (*Geranium dissectum*), curly dock (*Rumex crispus*), spring vetch (*Vicia sativa*), and hairy vetch (*Vicia villosa*). The area is on an undeveloped agricultural field that has experienced periods of disturbance; thus, ruderal vegetation is common within the plant community.

3.2. Roadside Ditch

An aquatic resources delineation was conducted for the Study Area on 1 February 2018 (Madrone 2018). A single aquatic resource (a roadside ditch) was mapped within the Study Area during this survey and is depicted in **Figure 2**. Four ditch segments are located along the southern boundary of the Study Area, with culverts at driveways and existing crossings (Madrone 2018). The ditch was created in uplands to drain uplands as part of the City of Winter's storm drainage system. The ditch consisted predominantly of upland plants such as black mustard and Johnson grass (*Sorghum halepense*). Deeper parts of the ditch had a more even mix of upland and facultative species, including fiddle dock (*Rumex pulcher*) and perennial rye grass.

3.3 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2018), two soil mapping units occur within the Study Area (**Figure 3**): (BrA) Brentwood silty clay loam, 0 to 2 percent slopes; and (Rg) Rincon silty clay loam, 0 to 1 percent slopes. Neither of these soil map units have been identified as containing special soils, such as serpentine or saline-alkali inclusions (NRCS 2018).

4.0 SURVEY RESULTS

4.1 Recurved Larkspur

Recurved larkspur (*Delphinium recurvatum*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. Recurved larkspur grows in chenopod scrub, cismontane woodland, and valley and foothill grassland between approximately 5 and 2,600 feet (CNPS 2018). This perennial herb favors alkaline soils, and blooms from march to June (CNPS 2018).

The annual brome grassland community within the Study Area provides extremely marginal habitat for this species. This species was not observed during the 2018 special-status plant survey of the Study Area.

4.2 Dwarf Downingia

Dwarf downingia (*Downingia pusilla*) is not federally or state listed, but it is classified as a CRPR List 2B.2 plant. Dwarf downingia grows in mesic valley and foothill grassland and in vernal pools between sea level and approximately 1,460 feet (CNPS 2018). This annual herb blooms from March to May (CNPS 2018).

The deeper portions of the roadside ditch provide extremely marginal habitat for this species. This species was not observed during the 2018 special-status plant survey of the Study Area.

4.3 Bearded Popcornflower

Bearded popcornflower (*Plagiobothrys hystriculus*) is not federally or state listed, but it is classified as a CRPR List 1B.1 plant. This annual herb is often found in vernal swales and along vernal pool margins. It can also be found in mesic valley and foothill grassland habitat (CNPS 2018). Bearded popcornflower occurs at elevations ranging from sea level to 900 feet, and blooms from April through May (CNPS 2018).

The deeper portions of the roadside ditch provide extremely marginal habitat for this species. This species was not observed during the 2018 special-status plant survey of the Study Area.

5.0 CONCLUSION

Special-status plants were not observed during the 2018 protocol-level special-status plant survey of the Winters 61 Study Area.

6.0 REFERENCES

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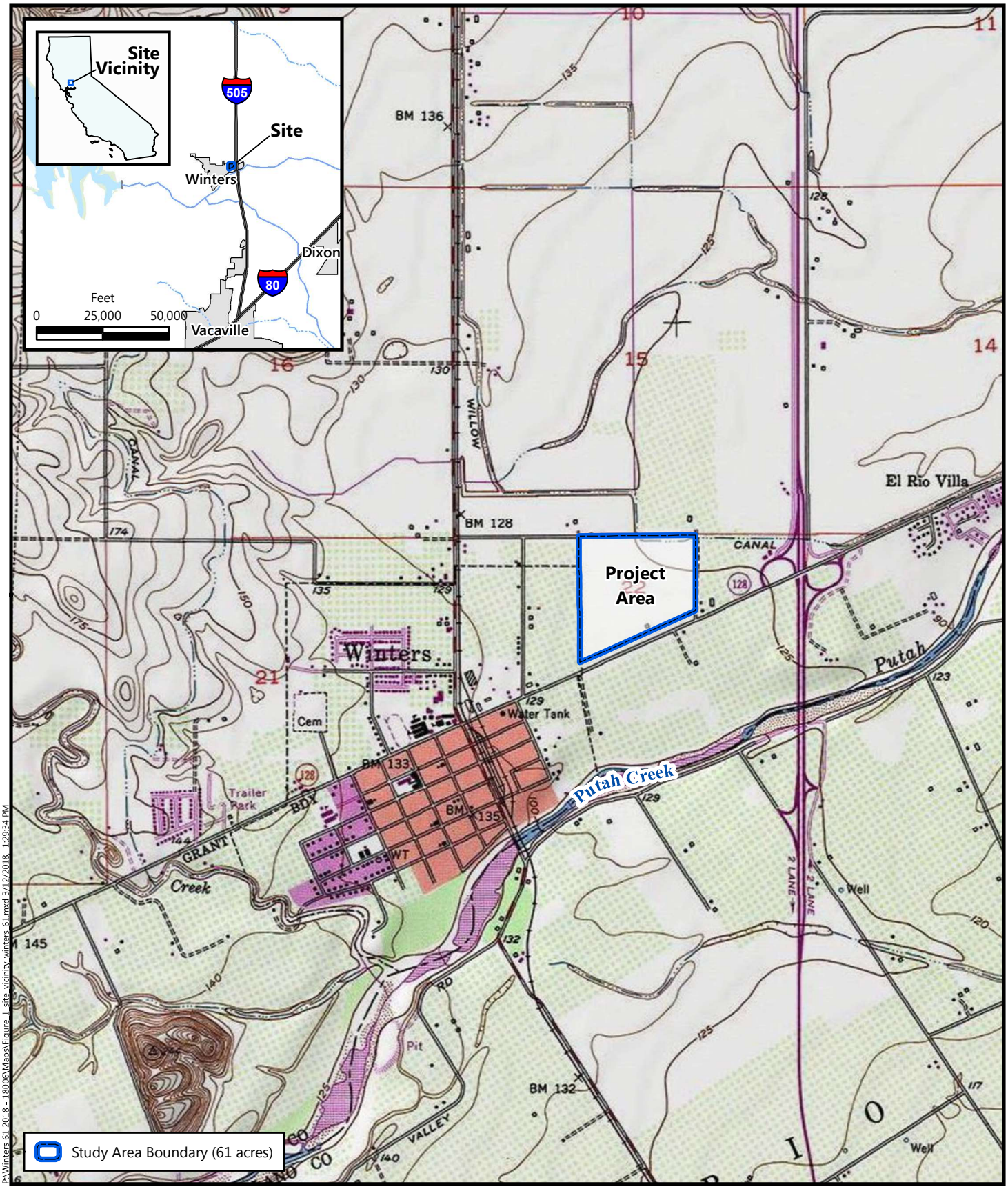
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Figures

Figure 1. Site Vicinity
Figure 2. Aquatic Resources
Figure 3. Natural Resources Conservation Service Soils



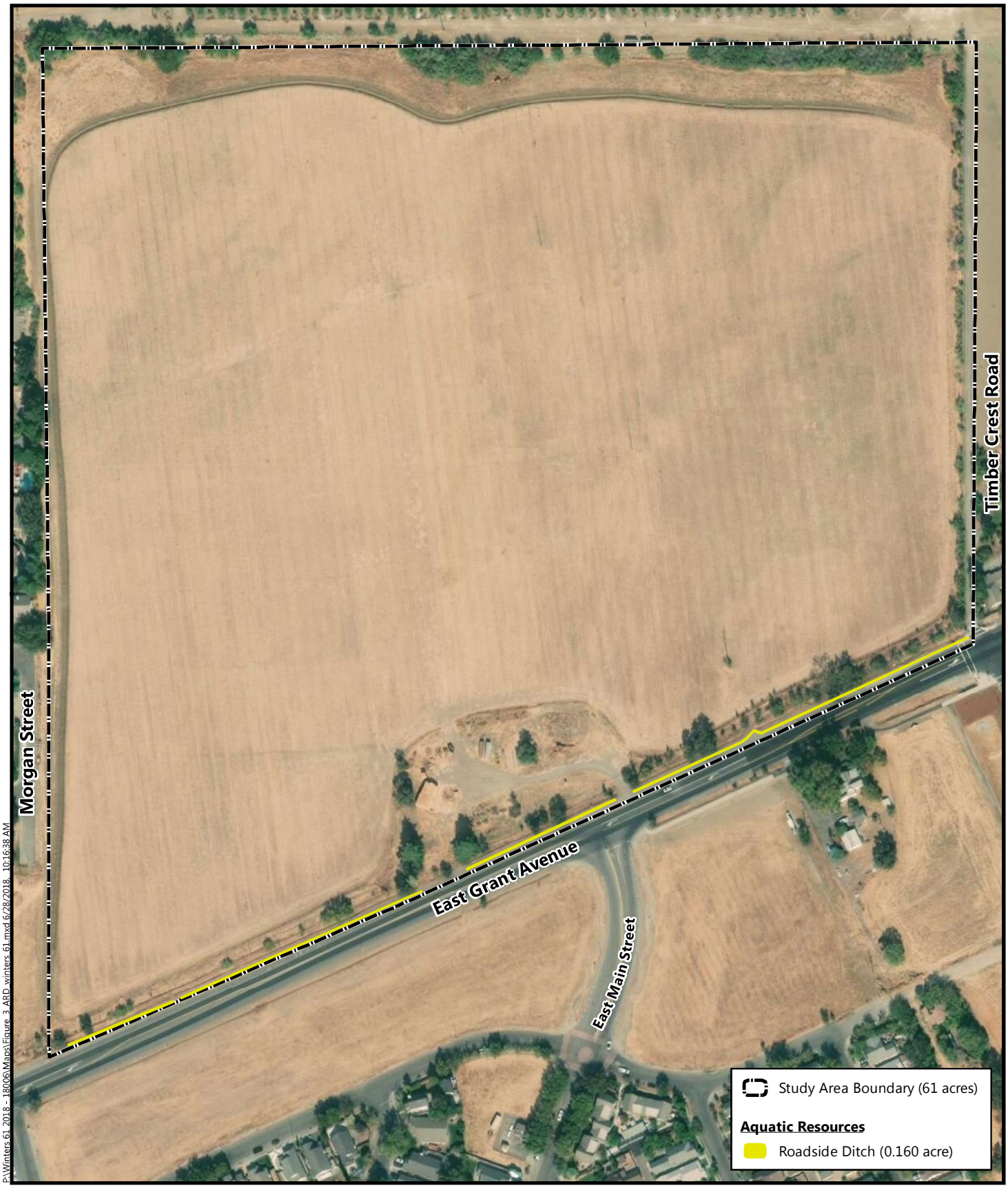
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Source: United States Geologic Survey, 1953.
"Winters, California" 7.5-Minute Topographic Quadrangle
Section 22, Township 8 North, Range 1 West, MDB&M
Longitude -121.961685, Latitude 38.530535

Figure 1
Vicinity Map

Winters 61 Propety
City of Winters, Yolo County, California

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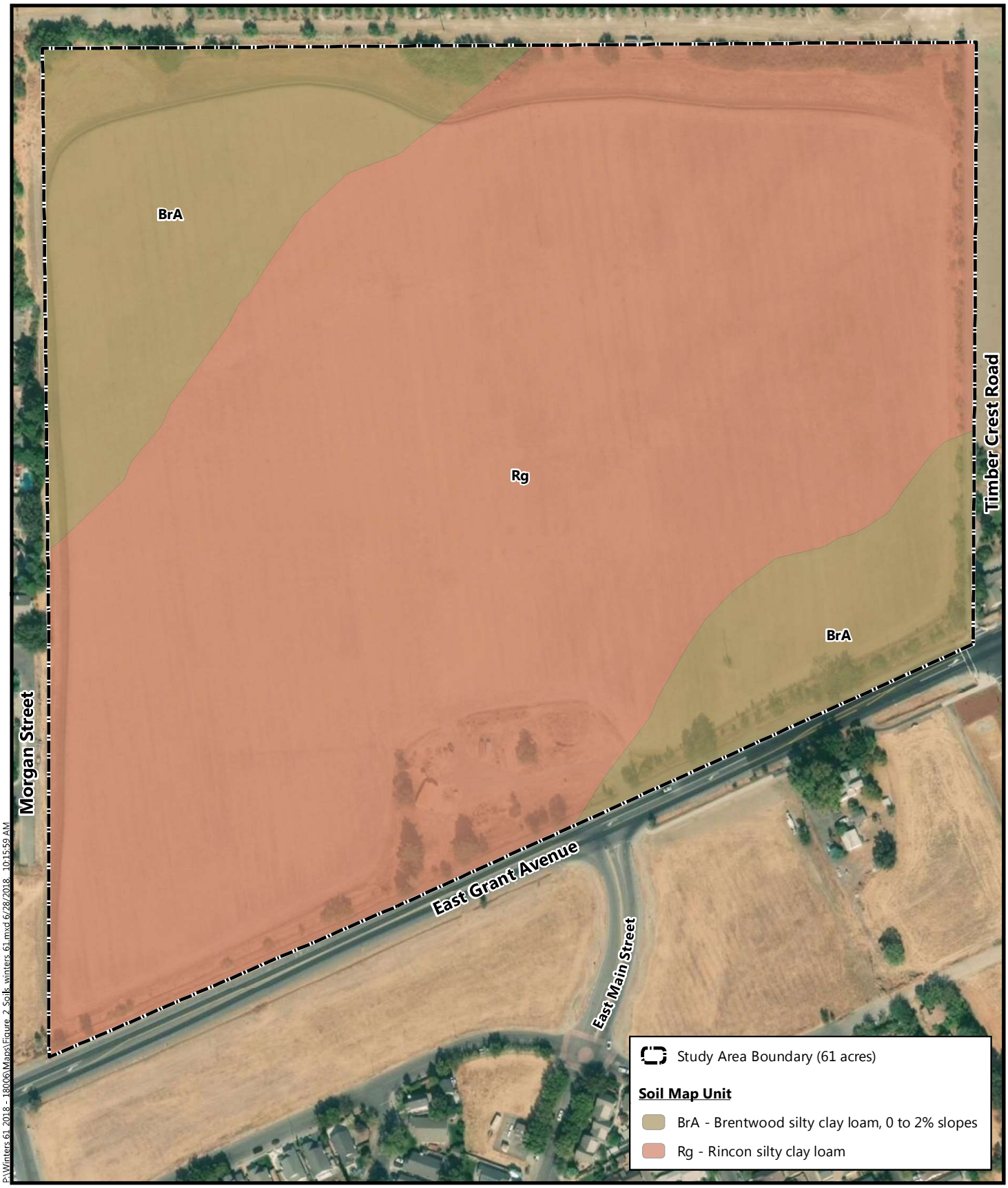
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Figure 2
Aquatic Resources

Winters 61 Propety
City of Winters, Yolo County, California

Aerial Source: *USDA, National Agriculture Imagery Program,* 8 July 2016.

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Feet
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Soil Survey Source: *USDA, Soil Conservation Service. Soil Survey Geographic (SSURGO) database for Yolo County, California.*
Aerial Source: *USDA, National Agriculture Imagery Program,* 8 July 2016.

Figure 3
Natural Resources Conservation Service Soils

Winters 61 Propety
City of Winters, Yolo County, California

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Attachments

Attachment A: Biologist Qualifications

Attachment B: Plant Species Observed within the Winters 61 Study Area

Attachment A

Biologist Qualifications

BONNIE PETERSON

Ms. Peterson is a biologist and wetland/water quality regulatory specialist with experience obtaining required permits for a broad range of projects throughout California. She has managed regulatory compliance and implemented permitting strategies for compliance with the federal Clean Water Act Sections 401, 402 and 404; the Porter-Cologne Water Quality Control Act; the Dickey Water Pollution Act; Title 23 of the California Code of Regulations; California Fish and Game Code §1602; and state and federal Endangered Species Acts.

She conducts a range of activities to aid in planning and assure regulatory compliance in the field, including wetland delineations, environmental awareness training, and surveys and habitat assessments for valley elderberry longhorn beetle, burrowing owl, Swainson's hawk, giant garter snake, listed vernal pool branchiopods, and other special-status species; riparian and oak tree monitoring; vernal pool floristic monitoring, and rare plant surveys. She has monitored constructed and reference wetlands, monitored conservation areas and mitigation banks, prepared annual reports; prepared Mitigation Monitoring Plans and Open Space Monitoring Plans; and conducted biological assessments.

Ms. Peterson is a Certified Professional in Erosion and Sediment Control meeting requirements of a QSP/QSD. She directs staff in the preparation of Storm Water Pollution Prevention Plans and acts as a liaison between developers, contractors, city and county representatives, and various regional water quality control boards.

POSITION

Senior Biologist

AREAS OF EXPERTISE

- 404 Permitting
- 401 Certifications
- 1602 Agreements

EDUCATION

- B.S., Conservation Biology, California State University, Sacramento, 2003

RELEVANT TRAINING

- Current Treasure, Sac-Shasta Chapter of the Wildlife Society
- CDFW Scientific Collecting Permit with authorizations 1, 2, 3, 4, 5, 6, 7, & 9 (Permit SC-9589)
- CDFW Threatened & Rare Plant

SELECTED PROJECT EXPERIENCE

Electra-Pine Grove SCADA Switches
Regulatory Specialist, Amador and Calaveras County, California
Conducted site assessment and developed avoidance strategies for sensitive resources to allow work to occur without triggering a need for regulatory permits. Prepared BLM encroachment permit application. Conducted rare plant surveys and provided monitoring and environmental awareness training to construction crews.

Chuckwalla Valley State Prison, California Department of Corrections and Rehabilitation Biologist, Riverside County, California
Acted as a Project Biologist, Ms. Peterson conducted rare plant surveys, habitat assessments, and ordinary high water mark assessments for the Chuckawalla Valley State Prison facility repairs and produced biological survey reports to support the CEQA Notice of Exemption.

Collection Permit

- CPESC, CPESC Inc, Envirocert International (Cert# 6193)
- QSP/QSD ,CASQA & California Construction General Permit Training Team (Cert# 00294)
- USFWS Threatened & Endangered Species Permit for federally listed Branchiopods
- Vernal Pool Taxonomy, CNPS Plant Sciences Training Program
- Basic Wetland Delineation Course, Wetland Training Institute
- California Rapid Assessment Method (CRAM)

Level II Infill Correctional Facilities Projects at the Mule Creek State Prison Infill Site Biologist, Amador County, California

Ms. Peterson conducted wetland habitat assessments and prepared technical reports to support project planning and construction. She assisted with implementation of an environmental awareness program, and oversight of the Mitigation Monitoring Plan Implementation.

Los Cerros

Project Manager, City of Rocklin, California

As a regulatory specialist and project manager, Ms. Peterson prepared and/or coordinated the preparation of the wetland delineation, cultural resources study, arborist survey, and rare plant survey for the 144-acre residential development. She prepared the state and federal permitting strategy and assisted with the development of a project description for submittal to the City of Rocklin.

Markleeville Creek Restoration

Wetland and Revegetation Specialist, Alpine County, California

Ms. Peterson was the lead wetland scientist and a re-vegetation designer for the Markleeville Creek floodplain restoration project, located at a former USDA Forest Service Guard Station in Alpine County, California. Relocation of the USFS facilities to another nearby upland location has provided an opportunity for ecological restoration, environmental education/interpretation, and public recreation and access improvements. Ms. Peterson conducted a wetland delineation, noxious weeds survey, supported visual renderings to depict future vegetation conditions, prepared revegetation plans, and is evaluating the potential environmental impacts for CEQA compliance and preparing permit applications.

Lakeview Farms 320-acre Mitigation Basin

Biologist, City of Lincoln, Placer County, California

Ms. Peterson prepared the Mitigation Monitoring Plan and Operations and Management Plan. The project included the development and entitlement of a dual-use basin; regional flood mitigation and restoration of 154 acres of wetland and pond habitat. She assisted within obtaining required environmental permits and provided preconstruction biological surveys and post-construction long term resource monitoring assistance. She conducted mitigation success monitoring in compliance with U.S. Army Corps approved Mitigation Monitoring Plan.

Bickford Ranch

Regulatory Specialist/Biologist, Placer County, California

Ms. Peterson conducted riparian, vegetation, and hydrology monitoring for the onsite mitigation areas, conducted monitoring for VELB, conducted preserve monitoring, and provided management recommendations. She prepared annual monitoring reports for submittal to the USACE and CDFW as required by project permits.

Gill Ranch Mitigation Bank

Biologist, Sacramento County, California

Ms. Peterson conducted branchiopod surveys, and dip net monitoring of historic (i.e., naturally occurring) and constructed/restored mitigation vernal pools as mitigation for vernal pool fairy shrimp, California fairy shrimp, and tadpole shrimp. She also monitored mitigation pools for appropriate hydrology, a vegetative establishment, as required by

the Mitigation and Monitoring Plan, reviewed associated reports, and delineated wetlands.

City of Roseville Open Space Monitoring
Biologist, Placer County, California
Ms. Peterson acted as the monitoring biologist for the City. She conducted surveys for federally listed Branchiopods over multiple years as a component of the perpetual monitoring of constructed and preserved vernal pools, as well as 5-year success criteria monitoring of constructed or restored wetlands for mitigation purposes for all of the City's Open Space Preserves. She conducted annual vernal pool floristic assessments and ground nesting bird surveys, recorded residual dry matter data (RDM), and surveyed for factors such as invasive / nonnative plant species, hydrologic integrity, fencing integrity, condition of signage, and evidence of unauthorized use. She has written annual reports addressing the above issues and recommending necessary maintenance and management actions.

Laguna Creek Mitigation Bank
Biologist, Sacramento County, California
Ms. Peterson located and surveyed all associated native and elderberry mitigation plantings for survival rate, size class, and overall health. All elderberry shrubs were monitored for the presence of VELB, and additional stem count data was taken. She collected and organized the data for and prepared the annual monitoring report.

Silverado Oaks Urban Reserve
Biologist, Placer County, California
As a project biologist, Ms. Peterson supervised the collection of data and report preparation for success criteria monitoring for VELB and associated native plantings and oversaw the long-term monitoring of the Open Space Preserve area as required by the Operations and Management Plan for the site.

Attachment B

Plant Species Observed within the Winters 61 Study Area

Plant Species Observed within the Winters 61 Study Area
13 April 2018

Family / Species Name	Common name	Native / Non-Native
ASTERACEAE		
Centaurea solstitialis	Yellow star-thistle	Non-Native
Lactuca serriola	Prickly lettuce	Non-Native
Silybum marianum	Milk thistle	Non-Native
Xanthium strumarium	Cocklebur	Native
BORAGINACEAE		
Amsinckia menziesii	Common fiddleneck	Native
BRASSICACEAE		
Brassica nigra	Black mustard	Non-Native
CUPRESSACEAE		
Sequoia sempervirens	Coast redwood	Native
FABACEAE		
Medicago sativa	Alfalfa	Non-Native
Vicia sativa	Spring vetch	Non-Native
Vicia villosa	Winter vetch	Non-Native
FAGACEAE		
Quercus lobata	Valley oak	Native
GERANIACEAE		
Erodium botrys	Broad leaf filaree	Non-Native
Erodium cicutarium	Redstem filaree	Non-Native
Geranium dissectum	Cut-leaf geranium	Non-Native
JUGLANDACEAE		
Juglans regia	English walnut	Non-Native
Juglans x paradox	Paradox walnut	Non-Native
LAMIACEAE		
Lamium amplexicaule	Henbit	Non-Native
MORACEAE		
Ficus carica	Common fig	Non-Native
OLEACEAE		
Olea europaea	Olive	Non-Native

Plant Species Observed within the Winters 61 Study Area
13 April 2018

Family / Species Name	Common name	Native / Non-Native
PLANTAGINACEAE		
Plantago lanceolata	English plantain	Non-Native
POACEAE		
Avena barbata	Slender wild oat	Non-Native
Bromus diandrus	Ripgut grass	Non-Native
Bromus hordeaceus	Soft chess	Non-Native
Hordeum murinum	Wall barley	Non-Native
Festuca perennis	Perennial rye grass	Non-Native
Sorghum halepense	Johnson grass	Non-Native
POLYGONACEAE		
Rumex crispus	Curly dock	Non-Native
Rumex pulcher	Fiddle dock	Non-Native
ROSACEAE		
Prunus dulcis	Domestic almond	Non-Native

Appendix E

Memo

To: Kirk Skierski, City of Winters Senior Planner

From: Sarah VonderOhe, Principal SMV

Date: 26 May 2023

Subject: Winters 61 – 2023 Special-Status Plant Survey Results

Madrone Ecological Consulting, LLC (Madrone) completed a special-status plant survey for the Winter 61 Project on 26 April 2023. The approximately 61-acre Project and an approximately 4-acre off-site improvement area (collectively, Study Area) is located in Winters, north and south of the intersection of East Grant Avenue and Timber Crest Road (**Figure 1**). Approximately 61 acres of the Study Area was previously surveyed for special-status plants in 2018 (Madrone 2018). This memo is intended to provide a summary of the 2023 update survey for special-status plants completed within the Study Area.

Methods

Madrone Senior Biologist Tara Collins conducted a special-status plant survey of the Study Area on 26 April 2023 in accordance with the U.S. Fish and Wildlife Service's *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 1996), California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2018), and the *CNPS Botanical Survey Guidelines* (CNPS 2001).

A list of special-status plant species with potential to occur within the Study Area was developed by reviewing the following literature, and then refining the list based on habitats present within the Study Area:

- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2023) query of CRPR Lists 1A, 1B, 2A, and 2B within the "Winters, California" USGS topo quadrangle (USGS 2021), and the eight surrounding quadrangles; and
- the California Natural Diversity Database occurrences of special-status plant species within 5 miles of the Study Area (CNDDB 2023).

The target species for this survey were:

- Recurved larkspur (*Delphinium recurvatum*)
- Dwarf downingia (*Downingia pusilla*)

- Bearded popcornflower (*Plagiobothrys hystriculus*)

Meandering pedestrian surveys were conducted throughout all portions of the Study Area that represented potential habitat. The surveys were floristic in nature, meaning that all plant species observed on-site were identified to the taxonomic level necessary to determine rarity. Thus, if a special-status plant was present but not on the target list, it would have been detected and documented. Plant taxonomy was based on the nomenclature in the Jepson eFlora (Jepson Flora Project 2023). Vegetation communities were classified according to the Manual of California Vegetation, Second Edition (Sawyer et al. 2009).

Qualifications for the biologist that conducted the survey, a list of reference populations of target plants visited, and a comprehensive list of all plant species observed during surveys of the Study Area are available upon request.

Results

No special-status plants were found during the 26 April 2023 survey. The site provides very marginal habitat for the target species. Please contact me at svonderohe@madroneeco.com or (916) 822-3255 if you have any questions.

References

California Department of Fish and Wildlife (CDFW). 2018. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. State of California Natural Resource Agency Department of Fish and Wildlife. Dated 20 March 2018. Website https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959 [accessed March through April 2023].

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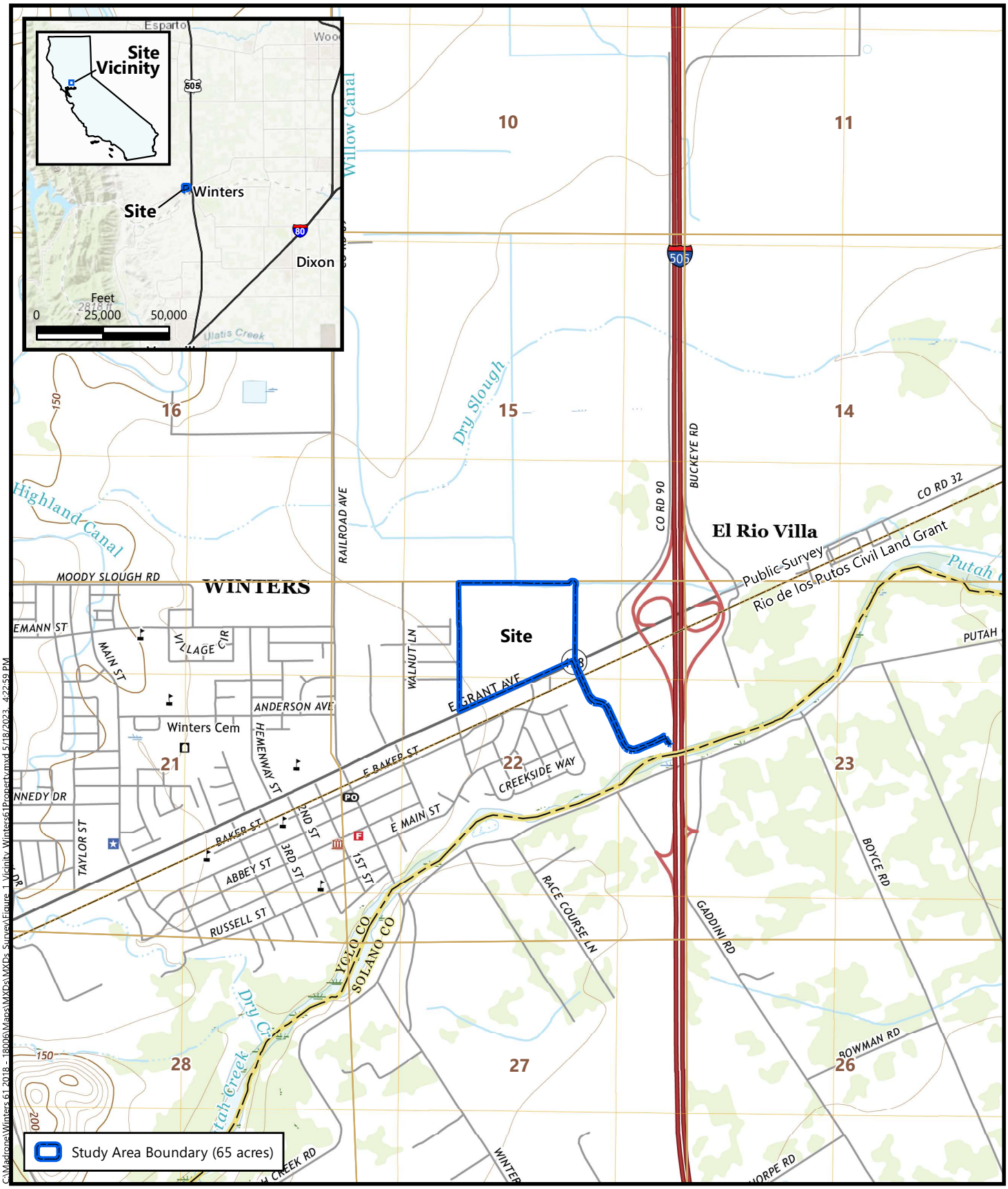
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C:\Madrone\Winters 61 2018 - 18006\Maps\MXDs\MXDs Survey\Figure_1_Vicinity_Winters61Property.mxd 5/18/2023 4:22:59 PM

Source: United States Geologic Survey, 2021.
Rio de los Putos Civil Land Grant
"Winters, California" 7.5-Minute Topographic Quadrangle
Sections 15 and 22, Township 8 North, Range 1 West, MDB&M
Longitude -121.961496, Latitude 38.530429

Figure 1
Site and Vicinity

Winters 61 Property
City of Winters, Yolo County, California

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Appendix F

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Winters (3812158) OR Madison (3812168) OR Esparto (3812261) OR Woodland (3812167) OR Merritt (3812157) OR Monticello Dam (3812251) OR Mt. Vaca (3812241) OR Allendale (3812148) OR Dixon (3812147))
AND Other Status CONTAINS (CDFW_FP-Fully Protected OR CDFW_SSC-Species of Special Concern)

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Actinemys marmorata	northwestern pond turtle	Reptiles	ARAAD02031	1082	6	Proposed Threatened	None	G2	SNR	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	null
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	960	14	None	Threatened	G1G2	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Antrozous pallidus	pallid bat	Mammals	AMACC10010	420	2	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2057	34	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Charadrius montanus	mountain plover	Birds	ABNNB03100	94	1	None	None	G3	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened, USFWS_BCC-Birds of Conservation Concern	Chenopod scrub, Valley & foothill grassland
Circus hudsonius	northern harrier	Birds	ABNKC11011	82	2	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal scrub, Great Basin grassland, Marsh & swamp, Riparian scrub, Valley & foothill grassland, Wetland

Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	635	1	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Broadleaved upland forest, Chaparral, Chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, Lower montane coniferous forest, Meadow & seep, Mojavean desert scrub, Riparian forest, Riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, Upper montane coniferous forest, Valley & foothill grassland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	190	6	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Icteria virens	yellow-breasted chat	Birds	ABPBX24010	101	1	None	None	G5	S4	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Lasiurus frantzii	western red bat	Mammals	AMACC05080	128	5	None	None	G4	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Cismontane woodland, Lower montane coniferous forest, Riparian forest, Riparian woodland
Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	Amphibians	AAABH01051	1608	8	None	None	G3T4	S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Aquatic, Klamath/North coast flowing waters, Riparian forest, Riparian scrub, Riparian woodland
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1443	1	Proposed Threatened	None	G2G3	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Taxidea taxus	American badger	Mammals	AMAJF04010	647	3	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Winters (3812158) OR Madison (3812168) OR Esparto (3812261) OR Woodland (3812167) OR Merritt (3812157) OR Monticello Dam (3812251) OR Mt. Vaca (3812241) OR Allendale (3812148) OR Dixon (3812147))
AND Federal Listing Status IS (Endangered OR Threatened OR Proposed Endangered OR Proposed Threatened OR Candidate) OR State Listing Status IS (Endangered OR Threatened OR Candidate Endangered OR Candidate Threatened)

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Actinemys marmorata	northwestern pond turtle	Reptiles	ARAAD02031	1082	6	Proposed Threatened	None	G2	SNR	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	null
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	960	14	None	Threatened	G1G2	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Ambystoma californiense pop. 1	California tiger salamander - central California DPS	Amphibians	AAAAA01181	1328	3	Threatened	Threatened	G2G3T3	S3	null	CDFW_WL-Watch List, IUCN_VU-Vulnerable	Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool, Wetland
Bombus crotchii	Crotch's bumble bee	Insects	IIHYM24480	441	3	None	Candidate Endangered	G2	S2	null	IUCN_EN-Endangered	null
Bombus occidentalis	western bumble bee	Insects	IIHYM24252	306	2	None	Candidate Endangered	G3	S1	null	IUCN_VU-Vulnerable, USFS_S-Sensitive	null
Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	ICBRA03030	804	13	Threatened	None	G3	S3	null	IUCN_VU-Vulnerable	Valley & foothill grassland, Vernal pool, Wetland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2577	360	None	Threatened	G5	S4	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	ABNRB02022	165	1	Threatened	Endangered	G5T2T3	S1	null	BLM_S-Sensitive, USFS_S-Sensitive	Riparian forest
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Insects	IICOL48011	271	12	Threatened	None	G3T3	S3	null	null	Riparian scrub
Lepidurus packardi	vernal pool tadpole shrimp	Crustaceans	ICBRA10010	336	1	Endangered	None	G3	S3	null	IUCN_EN-Endangered	Valley & foothill grassland, Vernal pool, Wetland
Riparia riparia	bank swallow	Birds	ABPAU08010	299	4	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Riparian scrub, Riparian woodland
Sidalcea keckii	Keck's checkerbloom	Dicots	PDMAL110D0	50	9	Endangered	None	G2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Cismontane woodland, Ultramafic, Valley & foothill grassland
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1443	1	Proposed Threatened	None	G2G3	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley &

												foothill grassland, Vernal pool, Wetland
Thamnophis gigas	giant gartersnake	Reptiles	ARADB36150	381	1	Threatened	Threatened	G2	S2	null	IUCN_VU-Vulnerable	Marsh & swamp, Riparian scrub, Wetland

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

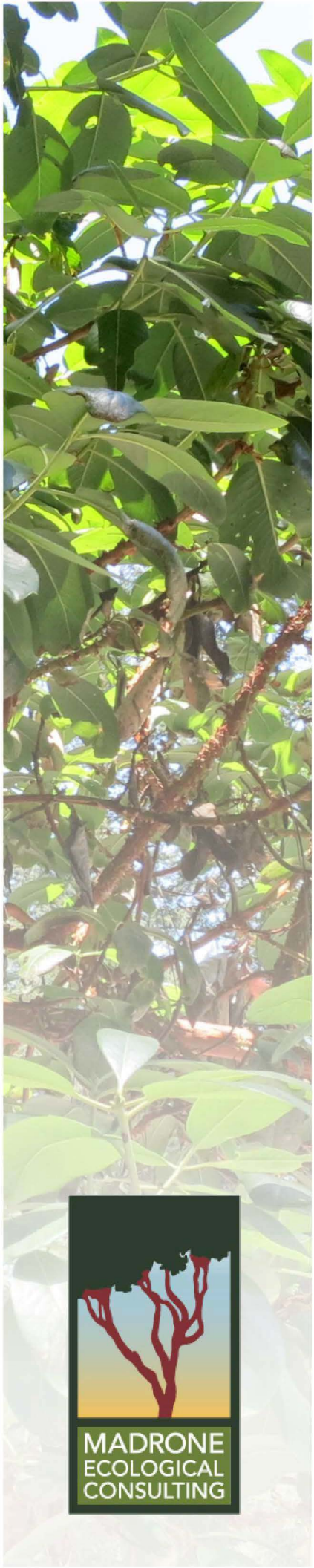
Query Summary:
Quad IS (Winters (3812158) OR Madison (3812168) OR Esparto (3812261) OR Woodland (3812167) OR Merritt (3812157) OR Monticello Dam (3812251) OR Mt. Vaca (3812241) OR Allendale (3812148) OR Dixon (3812147))
AND CA Rare Plant Rank IS (1A OR 1B OR 1B.1 OR 1B.2 OR 1B.3 OR 2A OR 2B OR 2B.1 OR 2B.2 OR 2B.3)

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Dicots	PDFAB0F8R3	18	1	None	None	G2T1	S1	1B.1	null	Meadow & seep, Valley & foothill grassland, Wetland
Astragalus tener var. tener	alkali milk-vetch	Dicots	PDFAB0F8R1	65	1	None	None	G2T1	S1	1B.2	SB_UCSC-UC Santa Cruz	Alkali playa, Valley & foothill grassland, Vernal pool, Wetland
Atriplex cordulata var. cordulata	heartscale	Dicots	PDCHE040B0	66	1	None	None	G3T2	S2	1B.2	BLM_S-Sensitive	Chenopod scrub, Meadow & seep, Valley & foothill grassland
Delphinium recurvatum	recurved larkspur	Dicots	PDRAN0B1J0	119	1	None	None	G2?	S2	1B.2	BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden	Chenopod scrub, Cismontane woodland, Valley & foothill grassland
Downingia pusilla	dwarf downingia	Dicots	PDCAM060C0	132	1	None	None	GU	S2	2B.2	null	Valley & foothill grassland, Vernal pool, Wetland
Fritillaria pluriflora	adobe-lily	Monocots	PMLIL0V0F0	114	1	None	None	G2G3	S2S3	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Hesperolinon breweri	Brewer's western flax	Dicots	PDLIN01030	29	4	None	None	G2	S2	1B.2	null	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Layia septentrionalis	Colusa layia	Dicots	PDAST5N0F0	69	1	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_UCBG-UC Botanical Garden at Berkeley	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Leptosiphon jepsonii	Jepson's leptosiphon	Dicots	PDPLM09140	51	1	None	None	G2G3	S2S3	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Dicots	PDPLM0C0E1	64	4	None	None	G4T2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Cismontane woodland, Lower montane coniferous forest, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Plagiobothrys hystriculus	bearded popcornflower	Dicots	PDBOR0V0H0	15	1	None	None	G2	S2	1B.1	null	Valley & foothill grassland, Vernal pool, Wetland
Puccinellia simplex	California alkali grass	Monocots	PMPOA53110	80	3	None	None	G2	S2	1B.2	BLM_S-Sensitive	Chenopod scrub, Meadow & seep, Valley & foothill grassland, Vernal pool
Sidalcea keckii	Keck's checkerbloom	Dicots	PDMAL110D0	50	9	Endangered	None	G2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Cismontane woodland, Ultramafic, Valley & foothill grassland

Appendix G



Valley Elderberry Longhorn Beetle Habitat Survey Report

Winters 61

Yolo County, California
June 2023

MADRONE ECOLOGICAL CONSULTING

Prepared for:
Mark Skreden
Skreden Commercial Real Estate
1515 Response Road
Sacramento, CA 95815

Recommended Citation:
Madrone Ecological Consulting, LLC (Madrone). 2023. *Valley Elderberry Longhorn Beetle Habitat Survey Report for Winters 61*. Prepared for Skreden Commercial Real Estate. Published on 6 June 2023.

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Valley Elderberry Longhorn Beetle Habitat Survey Report Winters 61

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2.0 SPECIES ACCOUNT 1
3.0 METHODOLOGY 1
4.0 GENERAL SITE CONDITIONS 2
5.0 SURVEY RESULTS 2
6.0 CONCLUSION 2
7.0 REFERENCES 2

Figures

Figure 1. Vicinity Map

1.0 INTRODUCTION

This report presents the results of a protocol-level Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, VELB) habitat survey conducted for the Winters 61 Property (Study Area) by Madrone Ecological Consulting, LLC (Madrone). The approximately 61-acre Project and an approximately 4-acre off-site improvement area (collectively, Study Area) are located in Winters, north and south of the intersection of East Grant Avenue and Timber Crest Road (**Figure 1**). Approximately 61 acres of the Study Area was previously surveyed for elderberry shrubs in 2018. This report is intended to provide a summary of the 2023 update survey for VELB completed within the Study Area.

2.0 SPECIES ACCOUNT

The VELB is federally listed as threatened. Critical habitat was designated by the USFWS on 8 August 1980 (45 Federal Register [FR] 52803). On 22 October 2012 the U.S. Fish and Wildlife Service (USFWS) issued a proposed rule to remove the designation of the VELB as a threatened species; however, on 29 August 2014 the USFWS formally withdrew the proposed rule (79 FR 55879). The Project is not located within critical habitat for the VELB (USFWS 1980).

The VELB is associated exclusively with elderberry (*Sambucus* species) shrubs in the Central Valley and adjacent foothills during its entire 2-year life cycle. Adult VELB lay their eggs on elderberry stems. Following egg-laying, larvae bore into the elderberry stems and feed upon the pith. They emerge through a round exit or emergence hole upon completion of this life stage. They are typically associated with elderberry stems and trunks that are greater than one inch in diameter at ground level. The USFWS considers all elderberry shrubs containing stems greater than one inch in diameter at ground level as potential VELB habitat. VELB most commonly occur in areas within, or near, some type of riparian corridor containing other woody plant species such as willow *(Salix* spp.), cottonwood *(Populus fremontii* ssp. *fremontii),* wild grape (*Vitis californica),* and box elder *(Acer negundo).* Population densities of the VELB are probably naturally low (USFWS 1984), and it has been suggested based on the spatial distribution of occupied shrubs, that the VELB has limited dispersal capabilities. Low density and limited dispersal capability may cause the VELB to be vulnerable to the adverse effects of the isolation of small subpopulations due to habitat fragmentation.

3.0 METHODOLOGY

Madrone biologists Tara Collins conducted a survey of the Study Area on 26 April 2023 in accordance with the survey protocol outlined in the *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (Framework) (USFWS 2017). The Framework is focused on assessing impacts to VELB when elderberries have been located on the site. Mitigation is now based on a per-shrub basis or habitat impact acreage rather than the historically reported stem counts, as dictated by the old *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1999).

The Study Area was thoroughly surveyed for elderberry shrubs. Typically, all elderberry shrubs with stems greater than one inch in diameter are mapped with a GPS unit capable of sub-meter accuracy, all stems greater than one inch in diameter at ground level are tallied by diameter size class, and all stems are searched for VELB exit holes, and shrub height, canopy diameter, and riparian position were recorded. If no shrubs are found, no further documentation is collected.

4.0 GENERAL SITE CONDITIONS

The main Study Area is an undeveloped agricultural field that is used for annual row crops. The main Study Area is bordered by East Grant Avenue on the south and single-family residential development on the west. An almond orchard is located on the property to the north and northeast. Low density rural residential homes are also located west of the Study Area. The Study Area is situated on flat terrain at an elevation of approximately 125 feet and has been leveled to facilitate flood irrigation. The off-site portion of the Study Area located south of East Grant Avenue consists primarily of a constructed drainage canal.

Vegetation within the Study Area consists primarily of ruderal non-native species including alfalfa (*Medicago sativa*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), perennial rye grass (*Festuca perennis*), and slender wild oat (*Avena barbata*). The perimeter of the site contains numerous trees and shrubs, including valley oak (*Quercus lobata*), paradox walnut (*Juglans x paradox*), and English walnut (*Juglans regia*) along the southern border, and olive (*Olea europaea*), and common fig (*Ficus carica)*. Volunteer domestic almond (*Prunus dulcis*) line the east, north, and west edges. Two large coast redwoods (*Sequoia sempervirens*) are located in the southern parking/staging area.

5.0 SURVEY RESULTS

No elderberry shrubs of any size where observed within the Study Area. Additionally, the Study Area does not contain riparian habitat as defined by the USFWS Framework.

6.0 CONCLUSION

The Study Area does not contain habitat for VELB, and no VELB were observed during the survey.

7.0 REFERENCES

U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1980. *Listing the Valley Elderberry Longhorn Beetle as a Threatened Species with Critical Habitat; Final Rule*. Federal Register Volume 45, Number 155 (August 8, 1980).

U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1984. *Valley Elderberry Longhorn Beetle Recovery Plan*. U. S. Fish and Wildlife Service, Portland, Oregon. 62 pp.

U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1999. *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*. Dated July 9, 1999.

U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2014. *Withdrawal of the Proposed Rule to Remove the Valley Elderberry Longhorn Beetle from the Federal List of Endangered and Threatened Wildlife*. Federal Register Volume 79, Number 180 (September 17, 2014).

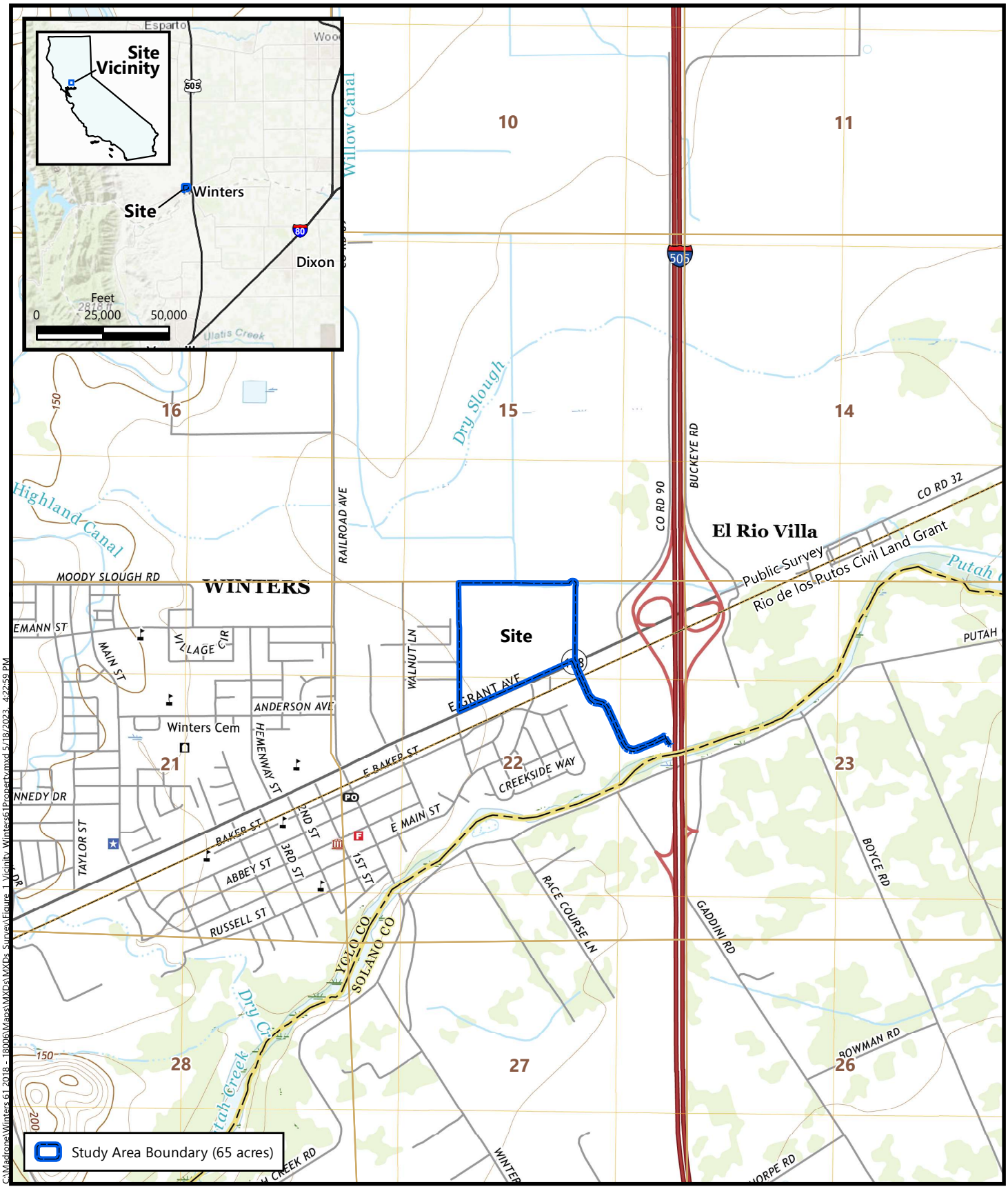
U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2017. *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle*. Dated May 2017.

U.S. Department of the Interior, Geological Survey (USGS). 1953. *Winters, California* 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

"Winters, California". 38º31'50.29" N, 121º57'41.59" W. *Google Earth*. Imagery dated 16 February 2022. Accessed 8 June 2023.

Figures

Figure 1. Vicinity Map



C:\Madrone\Winters 61 2018 - 18006\Maps\MXDs\Survey\Figure_1_Vicinity_Winters61Property.mxd 5/18/2023 4:22:59 PM

Source: United States Geologic Survey, 2021.
Rio de los Putos Civil Land Grant
"Winters, California" 7.5-Minute Topographic Quadrangle
Sections 15 and 22, Township 8 North, Range 1 West, MDB&M
Longitude -121.961496, Latitude 38.530429

Figure 1
Site and Vicinity

Winters 61 Property
City of Winters, Yolo County, California

MADRONE ECOLOGICAL CONSULTING

Appendix H

MADRONE ECOLOGICAL CONSULTING

8421 Auburn Blvd., Suite 248
Citrus Heights, CA 95610
www.madroneeco.com
(916) 822-3230

30 November 2020

Kathleen Trepa
City Manager
318 First Street
Winters, CA 95694

Subject: Winters 61 FESA Documentation

Dear Ms. Trepa:

The purpose of this letter is to provide information demonstrating the lack of habitat for plant and animal species listed under the Federal Endangered Species Act (FESA) for the Winters 61 project (Project) and is intended to support the Federal Emergency Management Agency's processing of Conditional Letter of Map Revision (CLOMR) for the Project.

The approximately 65-acre Study Area is located in the City of Winters, California, north of the intersection of East Main Street and East Grant Avenue. The Study Area falls within Section 22, Township 8 North, Range 1 West of the "Winters, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 1953) (**Figure 1**).

Our original work was conducted in 2018 on the 61 acre project site with an updated field visit performed in October 2020 to document the presence or absence of habitat for federally-listed species in the four acre off-site drainage area finalized in 2020.

Federally-Listed Species with Potential to Occur within the Project Vicinity
Madrone Ecological Consulting, LLC (Madrone) queried the California Natural Diversity Data Base in 2018 and again in 2020 (CNDDB) in order to determine which species listed under FESA have been documented within a five-mile radius of the Project site (**Figure 2**). Based on the CNDDB records and our experience conducting special-status species surveys within the area, federally-listed animals potentially occurring within the Project vicinity are as follows:

- Vernal Pool Fairy Shrimp (*Branchinecta lynchi*) –Threatened
- Vernal Pool Tadpole Shrimp (*Lepidurus packardi*) – Endangered
- Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) – Threatened

There are no plants listed under FESA that have the potential to occur within the Study Area. This is based on soil types, vegetation communities present, and lack of wetlands; however, Madrone conducted a survey in April 2018 for special-status plants with local or regional importance and none were located on the development portion of the project (**Attachment A**). The surveys were floristic in nature, which means that all plant species observed on-site were identified to the taxonomic level necessary to determine rarity. Thus, if a federally-listed plant was present despite the lack of habitat, it would have been detected and documented. The offsite drainage infrastructure areas were visited in 2020

to determine if there was the potential habitat for federally-listed plants. No potential habitat is present.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

The vernal pool fairy shrimp and vernal pool tadpole shrimp (collectively, vernal pool invertebrates) are federally-listed as threatened and endangered, respectively. They are found in vernal pools and other seasonally-inundated wetlands in the Central Valley of California. Madrone conducted an aquatic resources delineation of the Project site in February of 2018 in order to identify waters of the United States, including wetlands. No wetlands were identified on the Project site (**Figure 3**) and the verification letter (**Attachment B**) from the U.S. Army Corps of Engineers (USACE) on 29 March 2019. In October 2020, we performed an aquatic resources delineation on the off-site drainage improvement areas.

As described above and in the attached report, the Project site does not support vernal pools or wetlands of any kind; therefore, these species would not occur on the Project site or the off-site drainage improvement areas. The land surrounding the Project is either developed or in agricultural production (or has been in agricultural production) and do not (based on aerial photo review) contain the wetland habitat necessary to support these species. It is our conclusion that the Project would have no direct or indirect impacts to listed vernal pool invertebrates.

Valley Elderberry Longhorn Beetle

The Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, VELB) is listed as threatened. It is dependent upon the elderberry shrub (*Sambucus sp.*) as its obligate host plant. Elderberry shrubs are a common component of riparian areas throughout Central Valley of California, and they have been documented as occurring at numerous locations in Yolo County. Madrone conducted an elderberry shrub survey at the peak floristic season (April 2018) when shrubs are conspicuously flowering, and no shrubs were located. Since there are no elderberry shrubs on or adjacent to the Project site (visual inspection was used from on the Project site), the Project would have no impact to VELB (**Attachment C**). An additional survey of the off-site drainage infrastructure areas was completed in October 2020. No elderberry shrubs were present.

Determination of Effect

Based on the lack of suitable habitat for any federally-listed species and use of protocol surveys to support this determination, there would be no "take" of these species, and the Federal Emergency Management Agency (FEMA) can make a determination of "no effect" for the Project. A "no effect" determination by FEMA does not require consultation with or concurrence from the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

Please contact me at (916) 822-3230 if you have any questions or require additional information.

Sincerely,

Sarah VonderOhe

Sarah VonderOhe
Principal/Senior Biologist

Attachments

cc: Mark Skreden/Skreden Commercial Real Estate
David Dowswell/City of Winters – Community Development

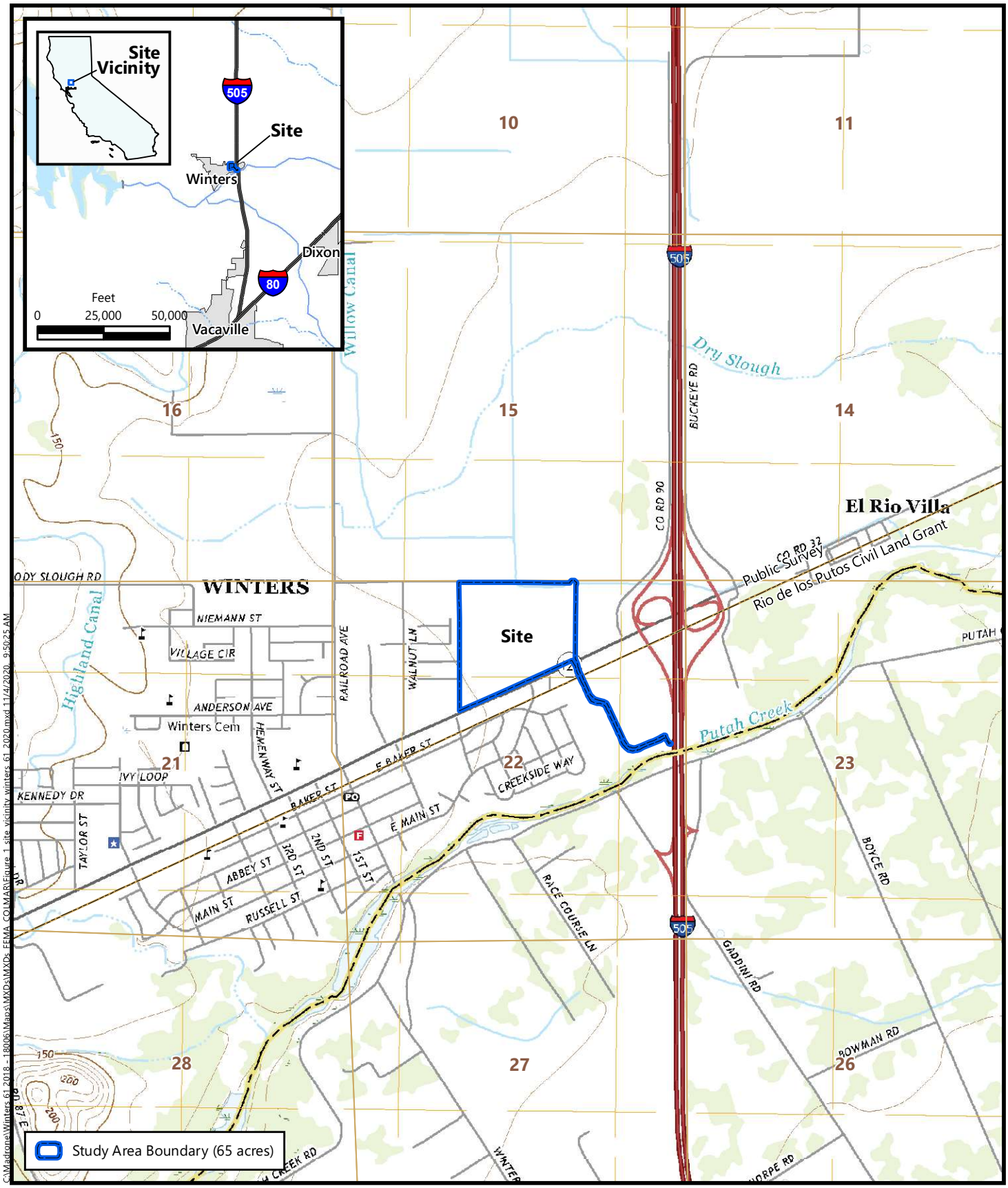
Eric Lucero/City of Winters – Public Works
Alan Mitchell/City of Winters

Figures

Figure 1. Vicinity Map

Figure 2. California Natural Diversity Database Occurrences

Figure 3. Potential Aquatic Resoures



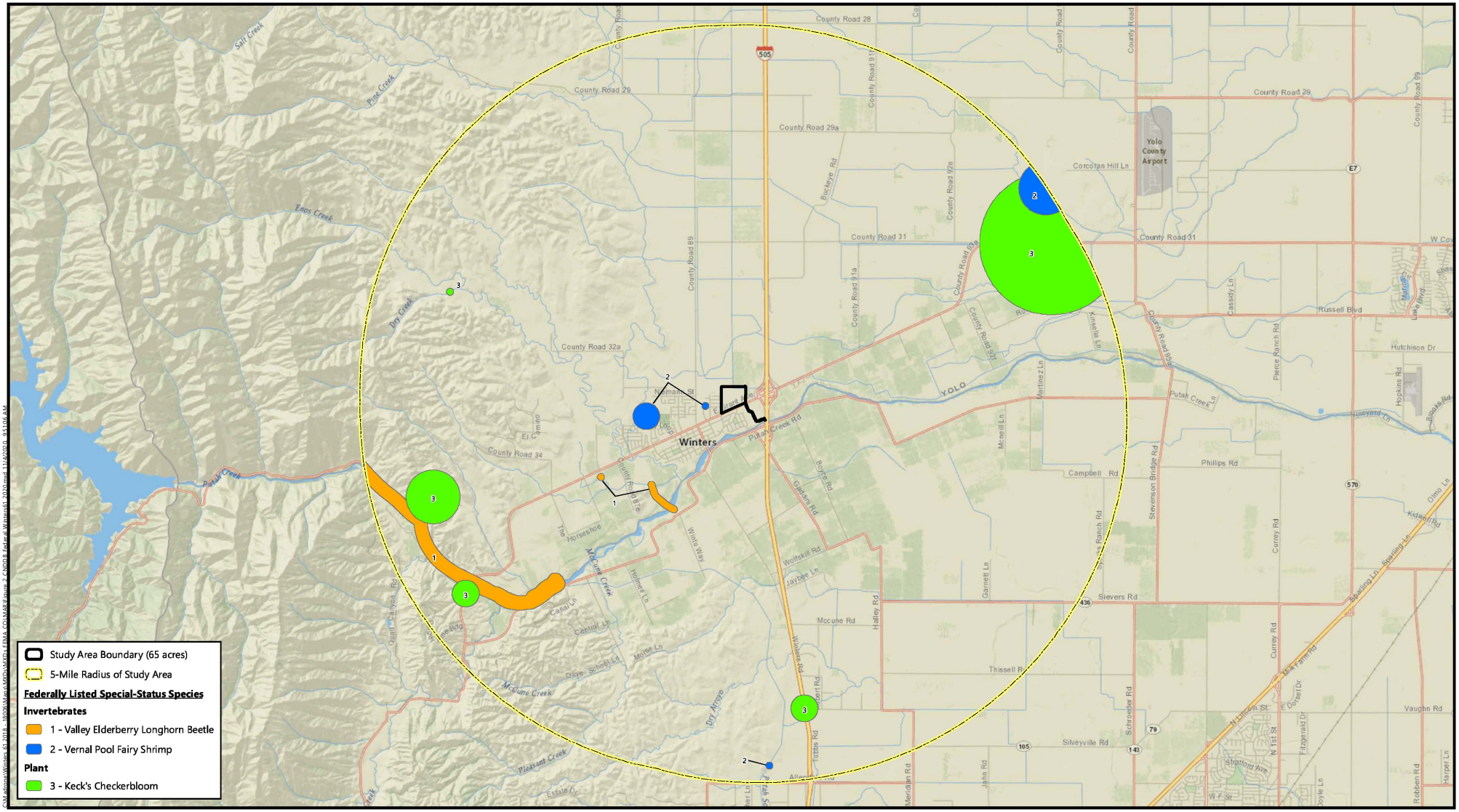
C:\Madrone\Winters 61 2018 - 18006\Maps\MXDs\MXDs EFMA COLMAR\Figure 1 site vicinity winters 61 2020.mxd 11/4/2020 9:50:25 AM

Source: United States Geologic Survey, 2018.
Rio de los Putos Civil Land Grant
"Winters, California" 7.5-Minute Topographic Quadrangle
Sections 15 and 22, Township 8 North, Range 1 West, MDB&M
Longitude -121.961496, Latitude 38.530429

Figure 1
Site and Vicinity

Winters 61 Propety
City of Winters, Yolo County, California

MADRONE ECOLOGICAL CONSULTING



Source: *California Department of Fish and Wildlife*, October 2020.
Basemap Source: *National Geographic* and *ESRI*

Figure 2
California Natural Diversity Database Occurrences - Federally Listed Species

Winters 61 Property
City of Winters, Yolo County, California

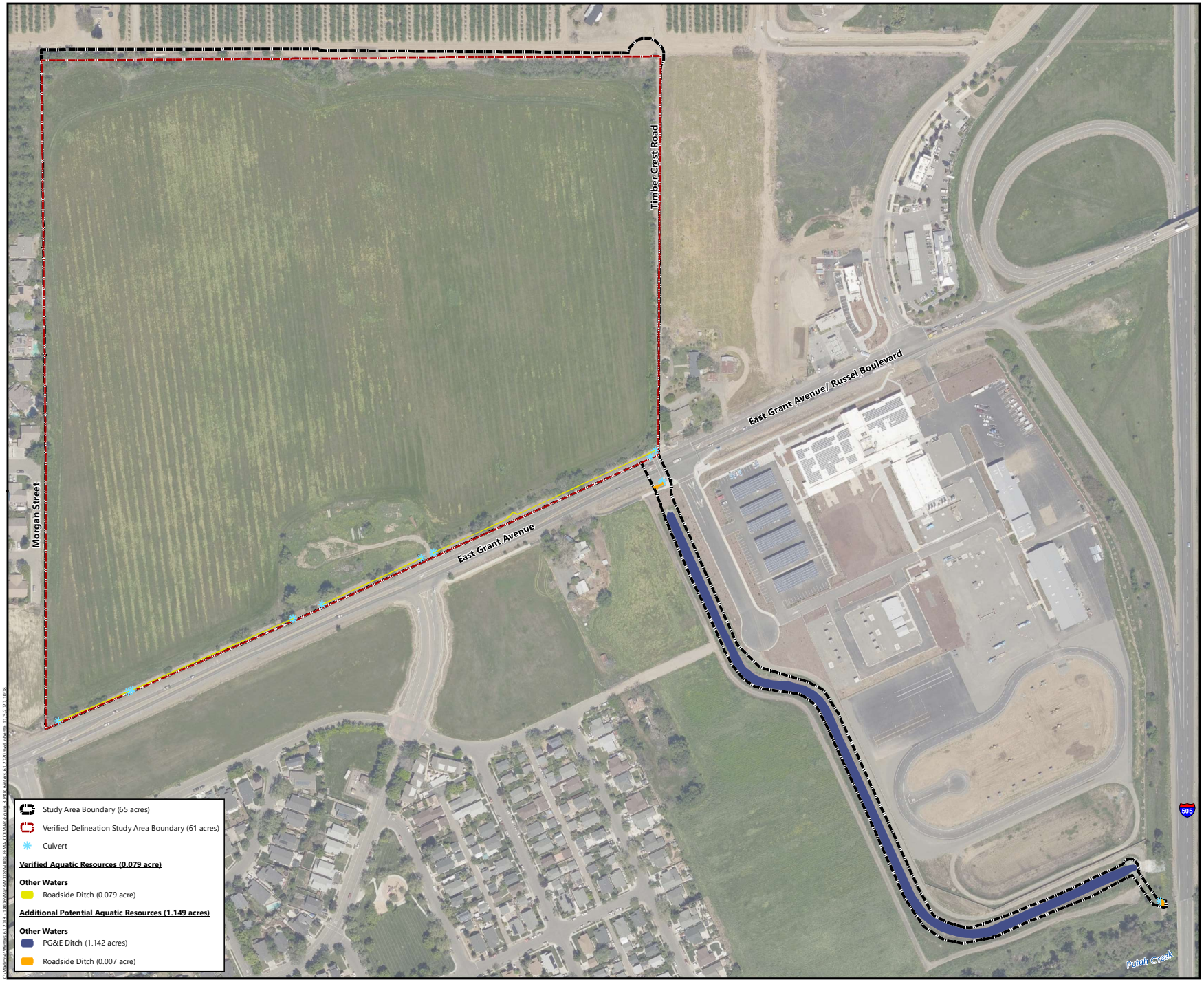


Figure 3
Potential Aquatic Resources

Winters 61 Propety
City of Winters, Yolo County, California

Aerial Source: Yolo County,13 April 2018

Attachments

Attachment A. Special Status Plant Survey Report

Attachment B. Verification Letter

Attachment C. Valley Elderberry Longhorn Beetle Habitat Survey Report

Attachment A

Special Status Plant Survey Report



Special-Status Plant Survey Report

Winters 61

Yolo County, California
June 2018

MADRONE ECOLOGICAL CONSULTING

Prepared for:
Mark Skreden
Skreden Commercial Real Estate
1515 Response Road
Sacramento, CA 95815

Recommended Citation:
Madrone Ecological Consulting, LLC (Madrone). 2018. *Special-Status Plant Survey Report for Winters 61*. Prepared for Skreden Commercial Real Estate. Published on 28 June 2018.

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Special-Status Plant Survey Report
Winters 61

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1.0 INTRODUCTION

This report presents the results of a special-status plant survey conducted for the Winters 61 Property (Study Area) by Madrone Ecological Consulting, LLC (Madrone). The approximately 61-acre Study Area is located in Winters, north of the intersection of East Main Street and East Grant Avenue. The Study Area is located in Section 22, Township 8 North, Range 1 West of the "Winters, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 1953) (**Figure 1**).

2.0 METHODOLOGY

Madrone Ecological Consulting, LLC (Madrone) biologists Bonnie Peterson and Matt Shaffer conducted a special-status plant survey of the Study Area on 13 April 2018 in accordance with the U.S. Fish and Wildlife Service's *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 1996), California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2009), and the *CNPS Botanical Survey Guidelines* (CNPS 2001).

A list of special-status plant species with potential to occur within the Study Area was developed by reviewing the following literature, and then refining the list based on habitats present within the Study Area:

- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2018) query of CRPR Lists 1A, 1B, 2A, and 2B within the "Winters, California" USGS topo quadrangle, and the eight surrounding quadrangles; and
- the California Natural Diversity Database occurrences of special-status plant species within 5 miles of the Study Area (CNDDB 2018).

The target species for this survey were:

- Recurved larkspur (*Delphinium recurvatum*)
- Dwarf downingia (*Downingia pusilla*)
- Bearded popcornflower (*Plagiobothrys hystriculus*)

Meandering pedestrian surveys were conducted throughout all portions of the Study Area that represented potential habitat. The surveys were floristic in nature, which means that all plant species observed on-site were identified to the taxonomic level necessary to determine rarity. Thus, if a special-status plant was present but not on the target list, it would have been detected and documented. Plant taxonomy was based on the nomenclature in the *Jepson eFlora* (Jepson Flora Project 2018). Vegetation communities were classified according to the *Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Qualifications for the biologist that conducted the surveys are included in **Attachment A** and a comprehensive list of all plant species observed during the survey of the Study Area is included in **Attachment B**.

3.0 GENERAL SITE CONDITIONS AND HABITAT

The Study Area is an undeveloped agricultural field that is used for annual row crops and was fallow during the April survey. The Study Area is bordered by East Grant Avenue on the south and single-family residential development on the west. An almond orchard is located on the property to the north and northeast. The abutting parcel to the east previously contained an almond orchard, which was removed and the area is now fallow. Low density rural residential homes are also located east of the Study Area. The Study Area is situated on flat terrain at an elevation of approximately 125 feet and has been leveled to facilitate flood irrigation. Based on a review of historic aerial photos (Google Earth 2018), the area appears to have been farmed since at least 1993.

Vegetation within the Study Area consists primarily of ruderal non-native species including alfalfa (*Medicago sativa*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), perennial rye grass (*Festuca perennis*), and slender wild oat (*Avena barbata*). The perimeter of the site contains numerous trees and shrubs, including valley oak (*Quercus lobata*), paradox walnut (*Juglans x paradox*), and English walnut (*Juglans regia*) along the southern border, and olive (*Olea europaea*), and common fig (*Ficus carica)*. Volunteer domestic almond (*Prunus dulcis*) line the east, north, and west edges. Two large coast redwoods (*Sequoia sempervirens*) are located in the southern parking/staging area.

3.1 Terrestrial Plant Communities

3.1.1 Annual Brome Grassland

The annual brome grassland within the Study Area is dominated by non-native annual grasses and forbs, such as soft brome (*Bromus hordeaceus*), ripgut brome, slender wild oat, perennial ryegrass, and yellow star-thistle (*Centaurea solstitialis*). Other species commonly occurring in this community on-site include alfalfa, black mustard, English plantain (*Plantago lanceolata*), foxtail barley (*Hordeum murinum*), redstem filaree (*Erodeum cicutarium*), broad leaf filaree (*Erodium botrys*), cut-leaf geranium (*Geranium dissectum*), curly dock (*Rumex crispus*), spring vetch (*Vicia sativa*), and hairy vetch (*Vicia villosa*). The area is on an undeveloped agricultural field that has experienced periods of disturbance; thus, ruderal vegetation is common within the plant community.

3.2. Roadside Ditch

An aquatic resources delineation was conducted for the Study Area on 1 February 2018 (Madrone 2018). A single aquatic resource (a roadside ditch) was mapped within the Study Area during this survey and is depicted in **Figure 2**. Four ditch segments are located along the southern boundary of the Study Area, with culverts at driveways and existing crossings (Madrone 2018). The ditch was created in uplands to drain uplands as part of the City of Winter's storm drainage system. The ditch consisted predominantly of upland plants such as black mustard and Johnson grass (*Sorghum halepense*). Deeper parts of the ditch had a more even mix of upland and facultative species, including fiddle dock (*Rumex pulcher*) and perennial rye grass.

3.3 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2018), two soil mapping units occur within the Study Area (**Figure 3**): (BrA) Brentwood silty clay loam, 0 to 2 percent slopes; and (Rg) Rincon silty clay loam, 0 to 1 percent slopes. Neither of these soil map units have been identified as containing special soils, such as serpentine or saline-alkali inclusions (NRCS 2018).

4.0 SURVEY RESULTS

4.1 Recurved Larkspur

Recurved larkspur (*Delphinium recurvatum*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. Recurved larkspur grows in chenopod scrub, cismontane woodland, and valley and foothill grassland between approximately 5 and 2,600 feet (CNPS 2018). This perennial herb favors alkaline soils, and blooms from march to June (CNPS 2018).

The annual brome grassland community within the Study Area provides extremely marginal habitat for this species. This species was not observed during the 2018 special-status plant survey of the Study Area.

4.2 Dwarf Downingia

Dwarf downingia (*Downingia pusilla*) is not federally or state listed, but it is classified as a CRPR List 2B.2 plant. Dwarf downingia grows in mesic valley and foothill grassland and in vernal pools between sea level and approximately 1,460 feet (CNPS 2018). This annual herb blooms from March to May (CNPS 2018).

The deeper portions of the roadside ditch provide extremely marginal habitat for this species. This species was not observed during the 2018 special-status plant survey of the Study Area.

4.3 Bearded Popcornflower

Bearded popcornflower (*Plagiobothrys hystriculus*) is not federally or state listed, but it is classified as a CRPR List 1B.1 plant. This annual herb is often found in vernal swales and along vernal pool margins. It can also be found in mesic valley and foothill grassland habitat (CNPS 2018). Bearded popcornflower occurs at elevations ranging from sea level to 900 feet, and blooms from April through May (CNPS 2018).

The deeper portions of the roadside ditch provide extremely marginal habitat for this species. This species was not observed during the 2018 special-status plant survey of the Study Area.

5.0 CONCLUSION

Special-status plants were not observed during the 2018 protocol-level special-status plant survey of the Winters 61 Study Area.

6.0 REFERENCES

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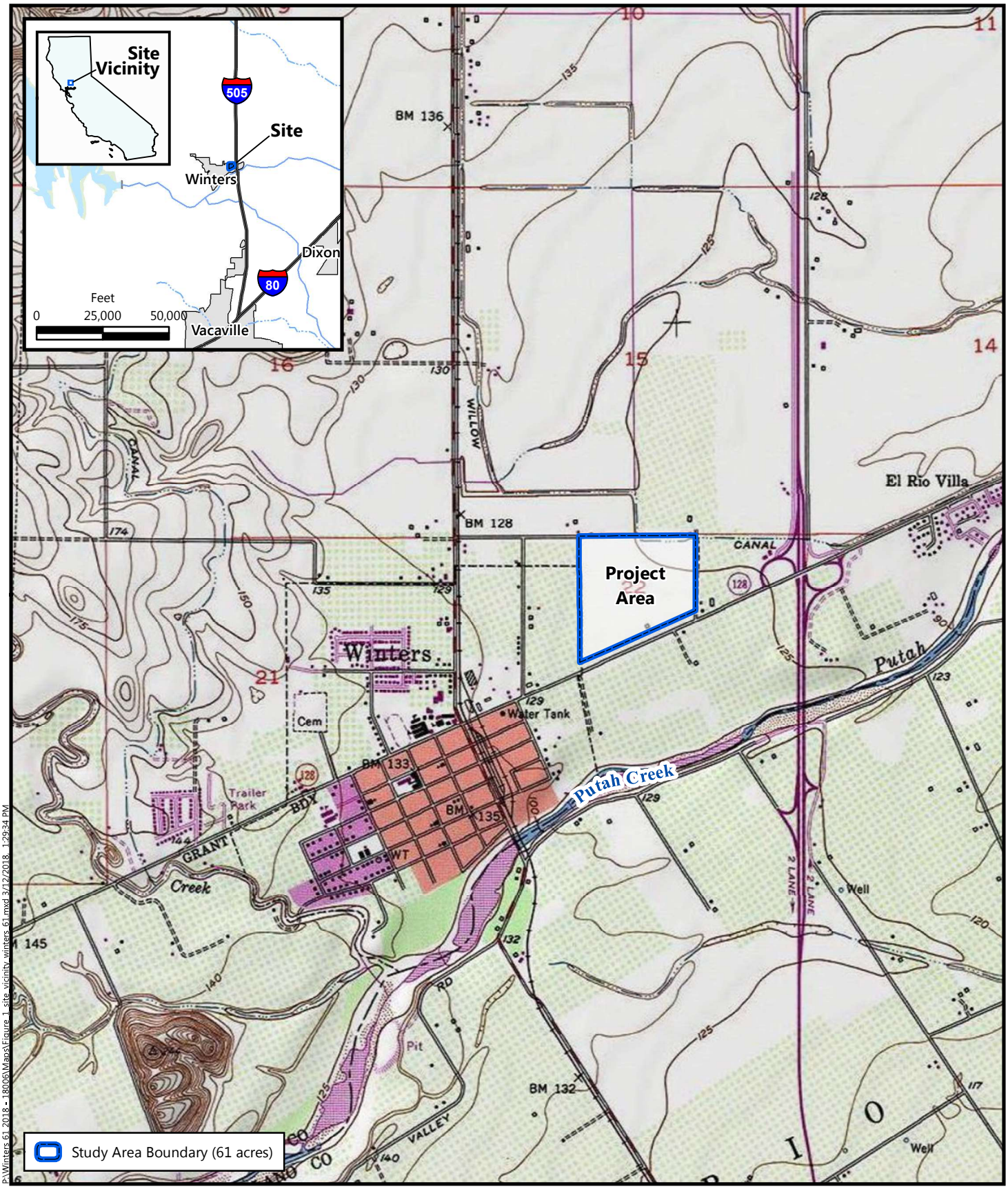
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Figures

Figure 1. Site Vicinity
Figure 2. Aquatic Resources
Figure 3. Natural Resources Conservation Service Soils



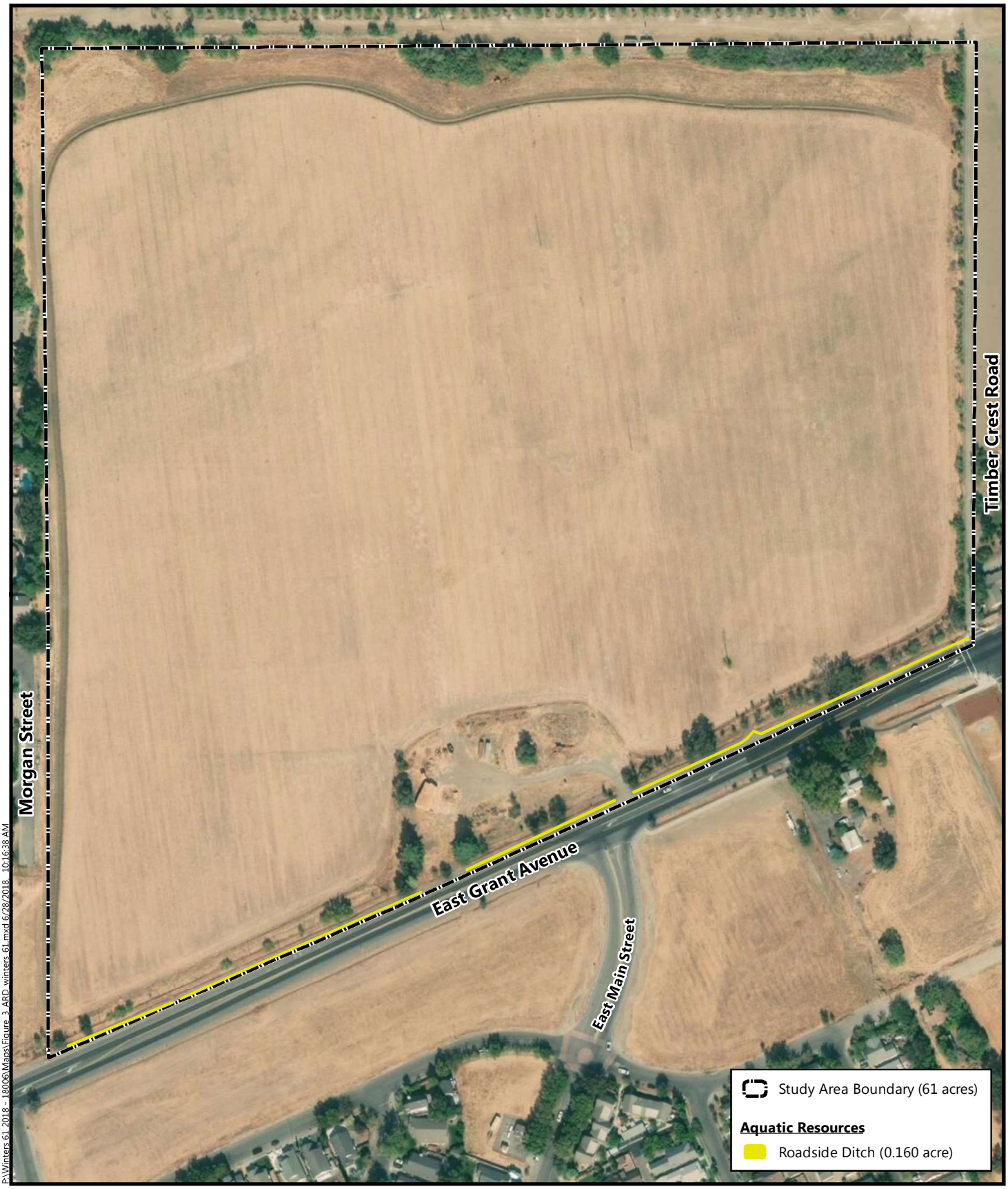
P:\Winters 61 2018 - 1800\GIS\Maps\Figure 1_site_vicinity winters 61.mxd 3/12/2018, 1:29:34 PM

Source: United States Geologic Survey, 1953.
"Winters, California" 7.5-Minute Topographic Quadrangle
Section 22, Township 8 North, Range 1 West, MDB&M
Longitude -121.961685, Latitude 38.530535

Figure 1
Vicinity Map

Winters 61 Propety
City of Winters, Yolo County, California

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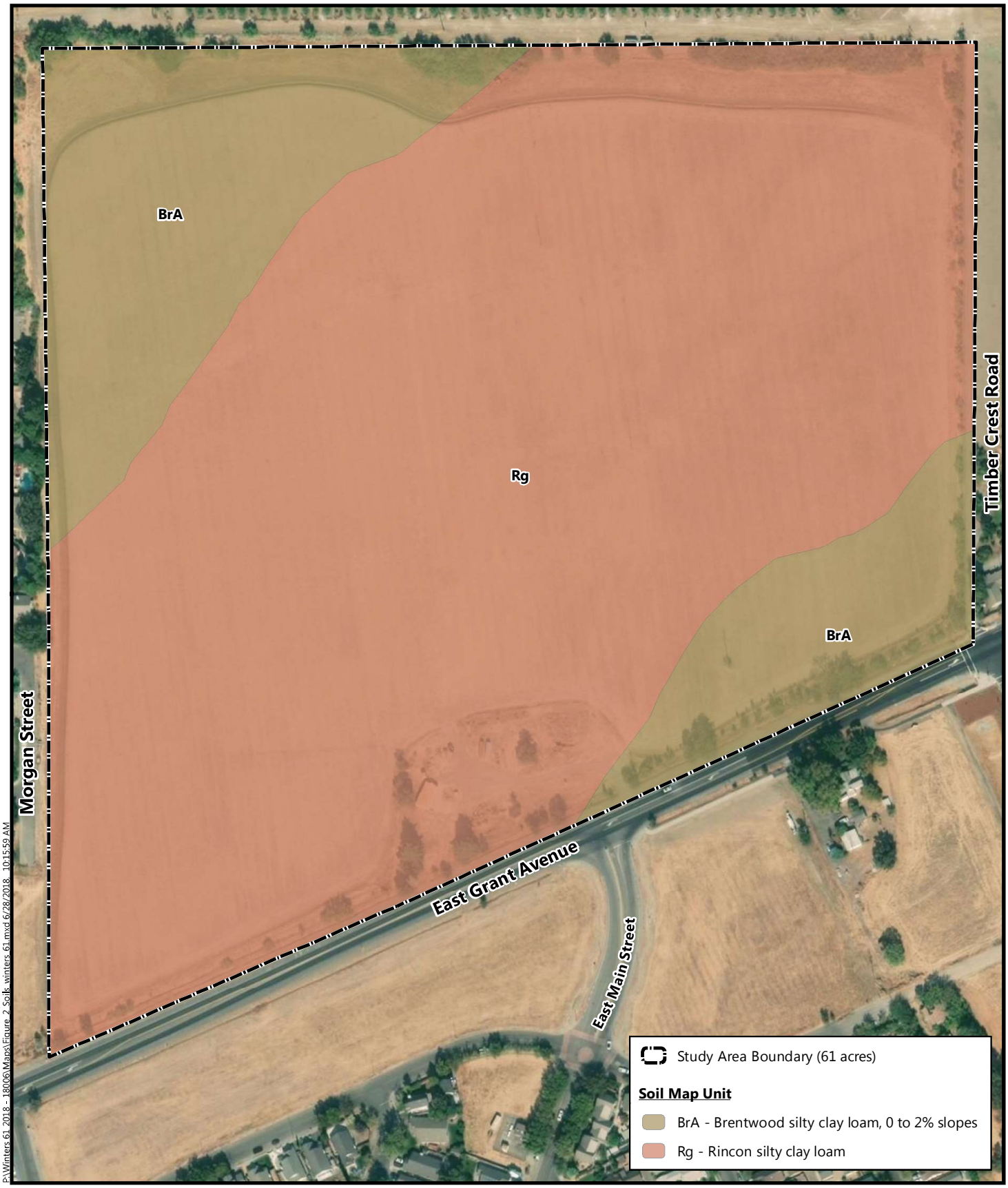
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Figure 2
Aquatic Resources

Winters 61 Propety
City of Winters, Yolo County, California

Aerial Source: *USDA, National Agriculture Imagery Program,* 8 July 2016.

MADRONE ECOLOGICAL CONSULTING



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Feet
0 125 250

Soil Survey Source: *USDA, Soil Conservation Service. Soil Survey Geographic (SSURGO) database for Yolo County, California.*
Aerial Source: *USDA, National Agriculture Imagery Program,* 8 July 2016.

Figure 3
Natural Resources Conservation Service Soils

Winters 61 Propety
City of Winters, Yolo County, California

MADRONE ECOLOGICAL CONSULTING

Attachments

Attachment A: Biologist Qualifications

Attachment B: Plant Species Observed within the Winters 61 Study Area

Attachment A

Biologist Qualifications

BONNIE PETERSON

Ms. Peterson is a biologist and wetland/water quality regulatory specialist with experience obtaining required permits for a broad range of projects throughout California. She has managed regulatory compliance and implemented permitting strategies for compliance with the federal Clean Water Act Sections 401, 402 and 404; the Porter-Cologne Water Quality Control Act; the Dickey Water Pollution Act; Title 23 of the California Code of Regulations; California Fish and Game Code §1602; and state and federal Endangered Species Acts.

She conducts a range of activities to aid in planning and assure regulatory compliance in the field, including wetland delineations, environmental awareness training, and surveys and habitat assessments for valley elderberry longhorn beetle, burrowing owl, Swainson's hawk, giant garter snake, listed vernal pool branchiopods, and other special-status species; riparian and oak tree monitoring; vernal pool floristic monitoring, and rare plant surveys. She has monitored constructed and reference wetlands, monitored conservation areas and mitigation banks, prepared annual reports; prepared Mitigation Monitoring Plans and Open Space Monitoring Plans; and conducted biological assessments.

Ms. Peterson is a Certified Professional in Erosion and Sediment Control meeting requirements of a QSP/QSD. She directs staff in the preparation of Storm Water Pollution Prevention Plans and acts as a liaison between developers, contractors, city and county representatives, and various regional water quality control boards.

POSITION

Senior Biologist

AREAS OF EXPERTISE

- 404 Permitting
- 401 Certifications
- 1602 Agreements

EDUCATION

- B.S., Conservation Biology, California State University, Sacramento, 2003

RELEVANT TRAINING

- Current Treasure, Sac-Shasta Chapter of the Wildlife Society
- CDFW Scientific Collecting Permit with authorizations 1, 2, 3, 4, 5, 6, 7, & 9 (Permit SC-9589)
- CDFW Threatened & Rare Plant

SELECTED PROJECT EXPERIENCE

Electra-Pine Grove SCADA Switches
Regulatory Specialist, Amador and Calaveras County, California
Conducted site assessment and developed avoidance strategies for sensitive resources to allow work to occur without triggering a need for regulatory permits. Prepared BLM encroachment permit application. Conducted rare plant surveys and provided monitoring and environmental awareness training to construction crews.

Chuckwalla Valley State Prison, California Department of Corrections and Rehabilitation Biologist, Riverside County, California
Acted as a Project Biologist, Ms. Peterson conducted rare plant surveys, habitat assessments, and ordinary high water mark assessments for the Chuckawalla Valley State Prison facility repairs and produced biological survey reports to support the CEQA Notice of Exemption.

- Collection Permit
- CPESC, CPESC Inc, Envirocert International (Cert# 6193)
- QSP/QSD ,CASQA & California Construction General Permit Training Team (Cert# 00294)
- USFWS Threatened & Endangered Species Permit for federally listed Branchiopods
- Vernal Pool Taxonomy, CNPS Plant Sciences Training Program
- Basic Wetland Delineation Course, Wetland Training Institute
- California Rapid Assessment Method (CRAM)

Level II Infill Correctional Facilities Projects at the Mule Creek State Prison Infill Site Biologist, Amador County, California

Ms. Peterson conducted wetland habitat assessments and prepared technical reports to support project planning and construction. She assisted with implementation of an environmental awareness program, and oversight of the Mitigation Monitoring Plan Implementation.

Los Cerros

Project Manager, City of Rocklin, California

As a regulatory specialist and project manager, Ms. Peterson prepared and/or coordinated the preparation of the wetland delineation, cultural resources study, arborist survey, and rare plant survey for the 144-acre residential development. She prepared the state and federal permitting strategy and assisted with the development of a project description for submittal to the City of Rocklin.

Markleeville Creek Restoration

Wetland and Revegetation Specialist, Alpine County, California

Ms. Peterson was the lead wetland scientist and a re-vegetation designer for the Markleeville Creek floodplain restoration project, located at a former USDA Forest Service Guard Station in Alpine County, California. Relocation of the USFS facilities to another nearby upland location has provided an opportunity for ecological restoration, environmental education/interpretation, and public recreation and access improvements. Ms. Peterson conducted a wetland delineation, noxious weeds survey, supported visual renderings to depict future vegetation conditions, prepared revegetation plans, and is evaluating the potential environmental impacts for CEQA compliance and preparing permit applications.

Lakeview Farms 320-acre Mitigation Basin

Biologist, City of Lincoln, Placer County, California

Ms. Peterson prepared the Mitigation Monitoring Plan and Operations and Management Plan. The project included the development and entitlement of a dual-use basin; regional flood mitigation and restoration of 154 acres of wetland and pond habitat. She assisted within obtaining required environmental permits and provided preconstruction biological surveys and post-construction long term resource monitoring assistance. She conducted mitigation success monitoring in compliance with U.S. Army Corps approved Mitigation Monitoring Plan.

Bickford Ranch

Regulatory Specialist/Biologist, Placer County, California

Ms. Peterson conducted riparian, vegetation, and hydrology monitoring for the onsite mitigation areas, conducted monitoring for VELB, conducted preserve monitoring, and provided management recommendations. She prepared annual monitoring reports for submittal to the USACE and CDFW as required by project permits.

Gill Ranch Mitigation Bank

Biologist, Sacramento County, California

Ms. Peterson conducted branchiopod surveys, and dip net monitoring of historic (i.e., naturally occurring) and constructed/restored mitigation vernal pools as mitigation for vernal pool fairy shrimp, California fairy shrimp, and tadpole shrimp. She also monitored mitigation pools for appropriate hydrology, a vegetative establishment, as required by

the Mitigation and Monitoring Plan, reviewed associated reports, and delineated wetlands.

City of Roseville Open Space Monitoring
Biologist, Placer County, California
Ms. Peterson acted as the monitoring biologist for the City. She conducted surveys for federally listed Branchiopods over multiple years as a component of the perpetual monitoring of constructed and preserved vernal pools, as well as 5-year success criteria monitoring of constructed or restored wetlands for mitigation purposes for all of the City's Open Space Preserves. She conducted annual vernal pool floristic assessments and ground nesting bird surveys, recorded residual dry matter data (RDM), and surveyed for factors such as invasive / nonnative plant species, hydrologic integrity, fencing integrity, condition of signage, and evidence of unauthorized use. She has written annual reports addressing the above issues and recommending necessary maintenance and management actions.

Laguna Creek Mitigation Bank
Biologist, Sacramento County, California
Ms. Peterson located and surveyed all associated native and elderberry mitigation plantings for survival rate, size class, and overall health. All elderberry shrubs were monitored for the presence of VELB, and additional stem count data was taken. She collected and organized the data for and prepared the annual monitoring report.

Silverado Oaks Urban Reserve
Biologist, Placer County, California
As a project biologist, Ms. Peterson supervised the collection of data and report preparation for success criteria monitoring for VELB and associated native plantings and oversaw the long-term monitoring of the Open Space Preserve area as required by the Operations and Management Plan for the site.

Attachment B

Plant Species Observed within the Winters 61 Study Area

Plant Species Observed within the Winters 61 Study Area
13 April 2018

Family / Species Name	Common name	Native / Non-Native
ASTERACEAE		
Centaurea solstitialis	Yellow star-thistle	Non-Native
Lactuca serriola	Prickly lettuce	Non-Native
Silybum marianum	Milk thistle	Non-Native
Xanthium strumarium	Cocklebur	Native
BORAGINACEAE		
Amsinckia menziesii	Common fiddleneck	Native
BRASSICACEAE		
Brassica nigra	Black mustard	Non-Native
CUPRESSACEAE		
Sequoia sempervirens	Coast redwood	Native
FABACEAE		
Medicago sativa	Alfalfa	Non-Native
Vicia sativa	Spring vetch	Non-Native
Vicia villosa	Winter vetch	Non-Native
FAGACEAE		
Quercus lobata	Valley oak	Native
GERANIACEAE		
Erodium botrys	Broad leaf filaree	Non-Native
Erodium cicutarium	Redstem filaree	Non-Native
Geranium dissectum	Cut-leaf geranium	Non-Native
JUGLANDACEAE		
Juglans regia	English walnut	Non-Native
Juglans x paradox	Paradox walnut	Non-Native
LAMIACEAE		
Lamium amplexicaule	Henbit	Non-Native
MORACEAE		
Ficus carica	Common fig	Non-Native
OLEACEAE		
Olea europaea	Olive	Non-Native

Plant Species Observed within the Winters 61 Study Area
13 April 2018

Family / Species Name	Common name	Native / Non-Native
PLANTAGINACEAE		
Plantago lanceolata	English plantain	Non-Native
POACEAE		
Avena barbata	Slender wild oat	Non-Native
Bromus diandrus	Ripgut grass	Non-Native
Bromus hordeaceus	Soft chess	Non-Native
Hordeum murinum	Wall barley	Non-Native
Festuca perennis	Perennial rye grass	Non-Native
Sorghum halepense	Johnson grass	Non-Native
POLYGONACEAE		
Rumex crispus	Curly dock	Non-Native
Rumex pulcher	Fiddle dock	Non-Native
ROSACEAE		
Prunus dulcis	Domestic almond	Non-Native

Attachment B

Verification Letter

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

March 29, 2019

Regulatory Division (SPK-2018-00582)

Skreden Commercial Real Estate
Attn: Mr. Mark Skreden
1515 Response Road
Sacramento, California 95815

Dear Mr. Skreden:

We are responding to your November 5, 2018 request for an approved jurisdictional determination for the Winters 61 Property site. The approximately 61-acre project site is located near Putah Creek, Latitude 38.52°, Longitude -121.97°, Winters, Yolo County, California.

Based on available information, we concur with your aquatic resources delineation for the site, as depicted on the enclosed March 28, 2019, *Aquatic Resource Features drawing* prepared by Madrone Ecological (Enclosure 1). Approximately 0.8-acres of aquatic resources present in the survey area are excluded waters of the U.S (33 CFR §328.3(b)(ii)). These aquatic resources are not currently regulated under Section 404 of the Clean Water Act.

Based on the information you have provided, we have determined that the work as proposed in Enclosure 1, will result in the discharge of dredged or fill material into excluded waters which are not currently regulated under Section 404 of the Clean Water Act. Therefore, a Department of the Army Permit is not required for this work. Measures should be taken to prevent construction materials and/or activities from entering any waters of the United States. Appropriate soil erosion and sediment controls should be implemented onsite to achieve this end.

We are enclosing a copy of the *Approved Jurisdictional Determination Form* for your site (Enclosure 2).

This approved jurisdictional determination is valid for five years from the date of this letter, unless new information warrants revision of the determination before the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 Code of Federal Regulations (CFR) Part 331.

A *Notification of Appeal Process* (NAP) *and Request for Appeal* (RFA) form is enclosed (Enclosure 3). If you request to appeal this determination, you must submit a completed RFA form to the South Pacific Division Office at the following address: Administrative Appeal Review Officer, U.S. Army Corps of Engineers, South Pacific

Division, CESPD-PDO, 1455 Market Street, 2052B, San Francisco, California 94103-1399, Telephone: 415-503-6574, FAX: 415-503-6646.

In order for an RFA to be accepted by the Corps, we must determine that the form is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that the form was received by the Division Office within 60 days of the date of the NAP. It is not necessary to submit an RFA form to the Division Office unless you object to the determination in this letter.

We recommend that you provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property.

This approved jurisdictional determination has been conducted to identify the limits of aquatic resources subject to U.S. Army Corps of Engineers jurisdiction under Section 404 of the Clean Water Act for the particular site identified in this request.

We appreciate feedback, especially about interaction with our staff and our processes.

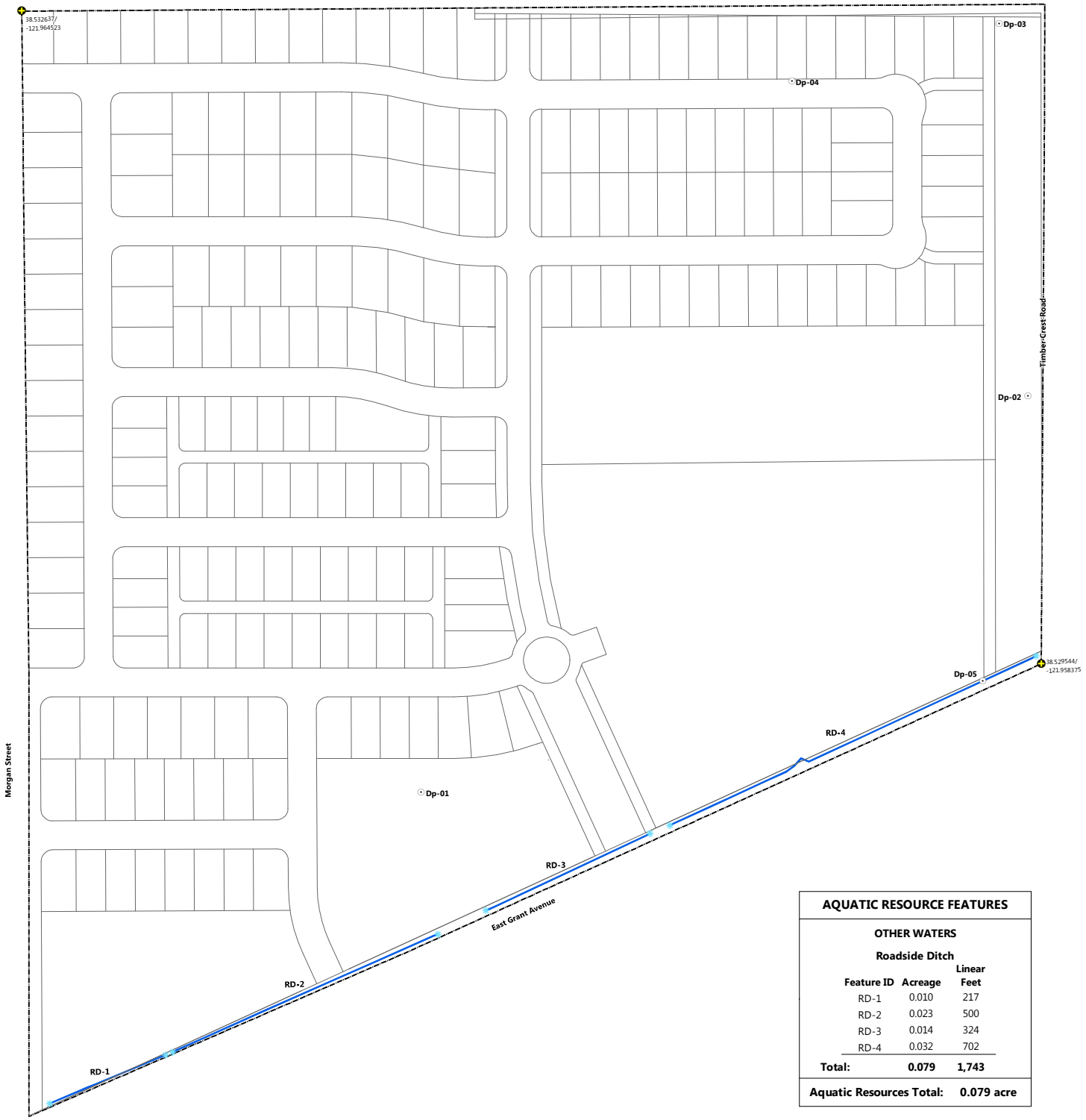
Please refer to identification number SPK-2018-00582 in any correspondence concerning this project. If you have any questions, please contact Ramon Aberasturi at CESPK-RD-D, 1325 J St., Sacramento, California 95814-2922, by email at *Ramon.Aberasturi@usace.army.mil*, or telephone at (916) 557-6865. For program information or to complete our Customer Survey, visit our website at *www.spk.usace.army.mil/Missions/Regulatory.aspx*.

Sincerely,

For: William Guthrie
Chief, California Delta Section

Enclosures

cc: (w/encls)
Ms. Sarah Vonderohe, Madrone Ecological, svonderohe@MadroneEco.com
Ms. Stephanie Tadlock, CRWQCB, Stephanie.Tadlock@Waterboards.ca.gov



AQUATIC RESOURCE FEATURES

OTHER WATERS

Roadside Ditch

Feature ID	Acreage	Linear Feet
RD-1	0.010	217
RD-2	0.023	500
RD-3	0.014	324
RD-4	0.032	702
Total:	**0.079**	**1,743**

Aquatic Resources Total: 0.079 acre

Project Name: Winters 61
Map Title: Winters 61 Property
Path: P:\Winters 61 2018 - 18088\Maps\MXDs\Fig2.mxd
Date Map Prepared: 28 March 2019

Notes:
Full Study Area Scale: 1 inch = 100 feet
Coordinate System: NAD 1983 State Plane California II
Datum: NAD83
Projection: Transverse Mercator
Vertical Data: NAVD88
Lotting Source: Wood Rodgers, Inc.
Aerial Base Flown: 18 October 2017
Date Map Prepared: 28 March 2019
Map Prepared by: N. Bente
Delineation Performed by: B. Peterson
Definitions:
ac = acre
NAD = North American Datum
NAVD = North American Vertical Datum
USDA = United States Department of Agriculture

N

0 50 100 200
Feet

Prepared For:

Mark Skreden
Skreden Commercial Real Estate
1515 Response Road
Sacramento, CA 95815

Study Area Boundary (61 acres)
Reference Point (decimal degrees, NAD83)
Data Point
Culvert
Lotting

Aquatic Resources

Other Waters
Roadside Ditch (0.079 acre)

Winters 61 Property

City of Winters, Yolo County, California

MADRONE ECOLOGICAL CONSULTING
8421 Auburn Boulevard, Suite 248
Citrus Heights, California 95610
(916) 822.3220 | www.madroneeco.com

Attachment C

Valley Elderberry Longhorn Beetle Habitat Survey Report



Valley Elderberry Longhorn Beetle Habitat Survey Report

Winters 61

Yolo County, California
June 2018

MADRONE ECOLOGICAL CONSULTING

Prepared for:

Mark Skreden
Skreden Commercial Real Estate
1515 Response Road
Sacramento, CA 95815

Recommended Citation:

Madrone Ecological Consulting, LLC (Madrone). 2018. *Valley Elderberry Longhorn Beetle Habitat Survey Report for Winters 61*. Prepared for Skreden Commercial Real Estate. Published on 28 June 2018.

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Valley Elderberry Longhorn Beetle Habitat Survey Report Winters 61

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4.0 GENERAL SITE CONDITIONS 2
5.0 SURVEY RESULTS 2
6.0 CONCLUSION 2
7.0 REFERENCES 2

Figures

Figure 1. Vicinity Map

1.0 INTRODUCTION

This report presents the results of a protocol-level Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, VELB) habitat survey conducted for the Winters 61 Property (Study Area) by Madrone Ecological Consulting, LLC (Madrone). The approximately 61-acre Study Area is located in Winters, north of the intersection of East Main Street and East Grant Avenue. The Study Area is located in Section 22, Township 8 North, Range 1 West of the "Winters, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 1953) (**Figure 1**).

2.0 SPECIES ACCOUNT

The VELB is federally listed as threatened. Critical habitat was designated by the USFWS on 8 August 1980 (45 Federal Register [FR] 52803). On 22 October 2012 the U.S. Fish and Wildlife Service (USFWS) issued a proposed rule to remove the designation of the VELB as a threatened species; however, on 29 August 2014 the USFWS formally withdrew the proposed rule (79 FR 55879). The Project is not located within critical habitat for the VELB (USFWS 1980).

The VELB is associated exclusively with elderberry (*Sambucus* species) shrubs in the Central Valley and adjacent foothills during its entire 2-year life cycle. Adult VELB lay their eggs on elderberry stems. Following egg-laying, larvae bore into the elderberry stems and feed upon the pith. They emerge through a round exit or emergence hole upon completion of this life stage. They are typically associated with elderberry stems and trunks that are greater than one inch in diameter at ground level. The USFWS considers all elderberry shrubs containing stems greater than one inch in diameter at ground level as potential VELB habitat. VELB most commonly occur in areas within, or near, some type of riparian corridor containing other woody plant species such as willow *(Salix* spp.), cottonwood *(Populus fremontii* ssp. *fremontii),* wild grape (*Vitis californica),* and box elder *(Acer negundo).* Population densities of the VELB are probably naturally low (USFWS 1984), and it has been suggested based on the spatial distribution of occupied shrubs, that the VELB has limited dispersal capabilities. Low density and limited dispersal capability may cause the VELB to be vulnerable to the adverse effects of the isolation of small subpopulations due to habitat fragmentation.

3.0 METHODOLOGY

Madrone biologists Bonnie Peterson and Matt Shaffer conducted a survey of the Study Area on 13 April 2018 in accordance with the survey protocol outlined in the *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (Framework) (USFWS 2017). The Framework is focused on assessing impacts to VELB when elderberries have been located on the site. Mitigation is now based on a per-shrub basis or habitat impact acreage rather than the historically reported stem counts, as dictated by the old *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1999).

The Study Area was thoroughly surveyed for elderberry shrubs. Typically, all elderberry shrubs with stems greater than one inch in diameter are mapped with a GPS unit capable of sub-meter accuracy, all stems greater than one inch in diameter at ground level are tallied by diameter size class, and all stems are searched for VELB exit holes, and shrub height, canopy diameter, and riparian position were recorded. If no shrubs are found, no further documentation is collected.

4.0 GENERAL SITE CONDITIONS

The Study Area is an undeveloped agricultural field that is used for annual row crops and was fallow during the April survey. The Study Area is bordered by East Grant Avenue on the south and single-family residential development on the west. An almond orchard is located on the property to the north and northeast. The abutting parcel to the east previously contained an almond orchard, which was removed and the area is now fallow. Low density rural residential homes are also located east of the Study Area. The Study Area is situated on flat terrain at an elevation of approximately 125 feet and has been leveled to facilitate flood irrigation. Based on a review of historic aerial photos (Google Earth 2018), the area appears to have been farmed since at least 1993.

Vegetation within the Study Area consists primarily of ruderal non-native species including alfalfa (*Medicago sativa*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), perennial rye grass (*Festuca perennis*), and slender wild oat (*Avena barbata*). The perimeter of the site contains numerous trees and shrubs, including valley oak (*Quercus lobata*), paradox walnut (*Juglans x paradox*), and English walnut (*Juglans regia*) along the southern border, and olive (*Olea europaea*), and common fig (*Ficus carica)*. Volunteer domestic almond (*Prunus dulcis*) line the east, north, and west edges. Two large coast redwoods (*Sequoia sempervirens*) are located in the southern parking/staging area.

5.0 SURVEY RESULTS

No elderberry shrubs of any size where observed within the Study Area. Additionally, the Study Area does not contain riparian habitat as defined by the USFWS Framework.

6.0 CONCLUSION

The Study Area does not contain habitat for VELB, and no VELB were observed during the survey.

7.0 REFERENCES

U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1980. *Listing the Valley Elderberry Longhorn Beetle as a Threatened Species with Critical Habitat; Final Rule*. Federal Register Volume 45, Number 155 (August 8, 1980).

U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1984. *Valley Elderberry Longhorn Beetle Recovery Plan*. U. S. Fish and Wildlife Service, Portland, Oregon. 62 pp.

U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1999. *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*. Dated July 9, 1999.

U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2014. *Withdrawal of the Proposed Rule to Remove the Valley Elderberry Longhorn Beetle from the Federal List of Endangered and Threatened Wildlife*. Federal Register Volume 79, Number 180 (September 17, 2014).

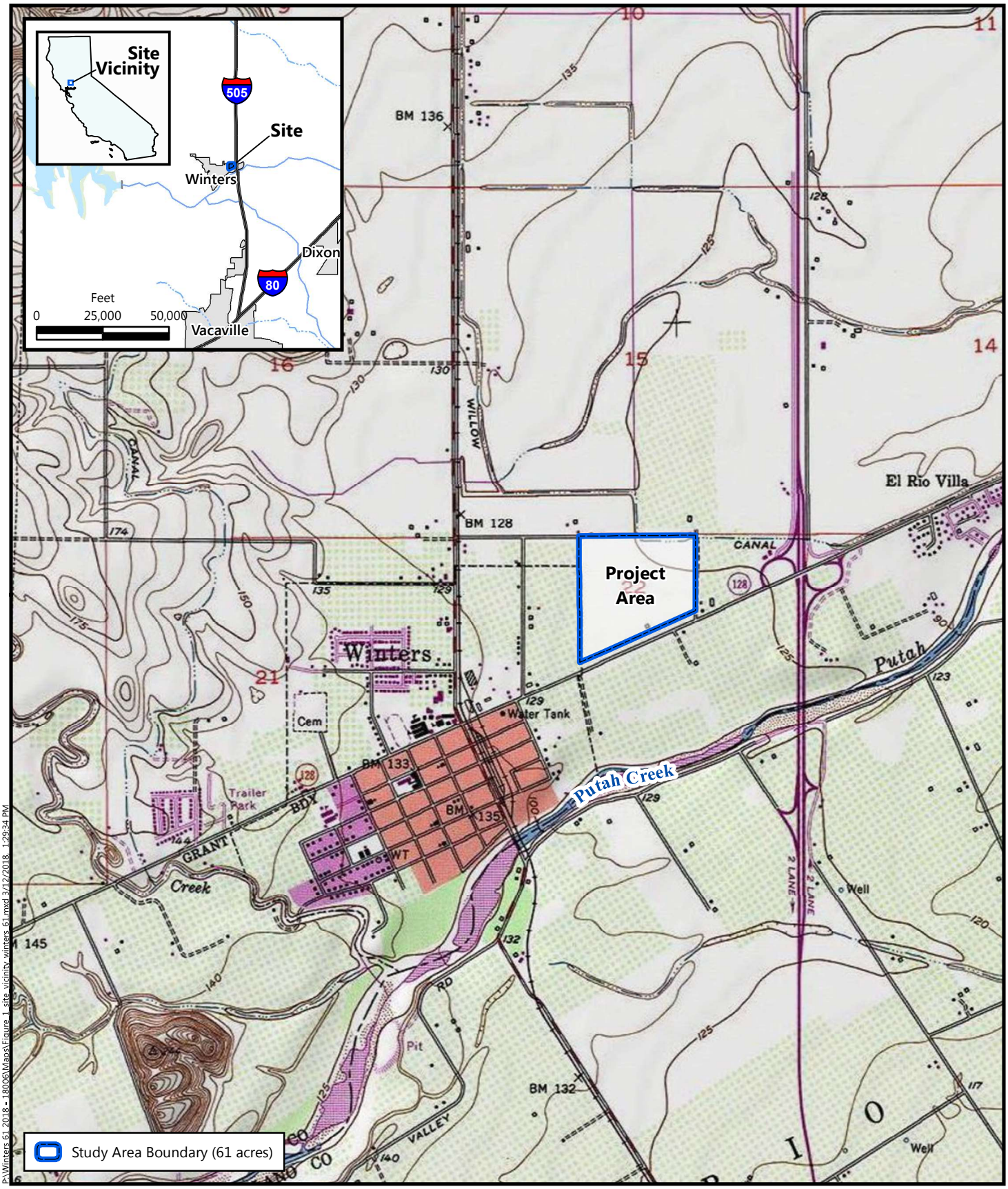
U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2017. *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle*. Dated May 2017.

U.S. Department of the Interior, Geological Survey (USGS). 1953. *Winters, California* 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

"Winters, California". 38°31'50.29" N, 121°57'41.59" W. *Google Earth*. Imagery dated February 5, 2018. Accessed April 2018.

Figures

Figure 1. Vicinity Map



P:\Winters 61 2018 - 1800\GIS\Maps\Figure 1_site_vicinity winters 61.mxd 3/12/2018, 1:29:34 PM

Source: United States Geologic Survey, 1953.
"Winters, California" 7.5-Minute Topographic Quadrangle
Section 22, Township 8 North, Range 1 West, MDB&M
Longitude -121.961685, Latitude 38.530535

Figure 1
Vicinity Map

Winters 61 Propety
City of Winters, Yolo County, California

MADRONE ECOLOGICAL CONSULTING

Appendix I

MADRONE ECOLOGICAL CONSULTING

8421 Auburn Blvd., Suite 248
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www.madroneeco.com
(916) 822-3230

10 December 2020

Ramon Aberasturi
U.S. Army Corps of Engineers
Regulatory Division
1325 J Street, Room 1350
Sacramento, California 95814-2922

Subject: Revised Winters 61 Aquatic Resources Delineation in the City of Winters, Yolo County, California (SPK-2018-0582)

Dear Mr. Aberasturi:

On behalf of Skreden Commercial Real Estate, Madrone Ecological Consulting, LLC is submitting for your review and verification, a revised Aquatic Resources Delineation for the Winters 61 Property (Study Area), located in the City of Winters, Yolo County.

Background

On 5 November 2018, a request for Aquatic Resourced Determination was made to the U.S. Army Corps of Engineers (USACE) for the approximately 61-acre property located north of the intersection of East Main Street and East Grant Street. This request was updated after a site visit with the USACE, the final Wetland Delineation Verification was issued on 29 March 2019 under SPK-2018-0582. It was determined that approximately 0.8-acres of aquatic resources were present in the survey area in the form of a roadside ditch along East Main Street and that these where excluded as waters of the U.S. (33 CFR §328.3(b)(ii)) and not regulated under Section 404 of the Clean Water Act.

During project design, it was determined that off-site drainage and flood control features were required, and as such the Study Area has been modified to include an additional 4-acres (**Figure 1. Project Site and Vicinity**). Changes in the Study Area include an approximately 10-foot expansion along the north and east boundary, as well as inclusion of a ditch south and east of the original Study Area to allow drainage modifications to take place. The revised Study Area to the south of the East Grant Street is within the bounds of the PG&E Gas Safety Academy. The Academy was built in 2016 and as part of the planning and design a number of environmental studies were conducted, including a wetland delineation and Environmental Impact Report.

Methods

On 21 October 2020, Madrone senior biologist Bonnie Peterson conducted a site visit to delineate wetlands and other waters within the revised Study Area. Aquatic resources and data points were mapped in the field with a GPS unit capable of sub-meter accuracy (Arrow 100). Three-parameter data (vegetation, soils, and hydrology) were collected at two additional data points, documenting wetland/waters or upland status, as appropriate. The previously verified delineation map was updated in accordance with the *Updated Map and*

Drawing Standards for the South Pacific Division Regulatory Program[1]. Note that the USACE previously requested that we not include an aerial background on the map.

The delineation was performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* [2], the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*[3], *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States*[4], and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations*[5]. U.S. Army Corps of Engineers (USACE) regulations (33 CFR 328) were used to determine the presence of Waters of the United States other than wetlands. The most recent *National Wetland Plant List*[6] was used to determine the wetland indicator status of plants observed in the Study Area. The *Jepson eFlora*[7] was used for plant nomenclature, except where it conflicted with the nomenclature in the *National Wetland Plant List*, which was given priority on the data sheets. Additionally, a review of historic aerial photography (Google Earth 1993-2020[8]) and topographic maps (USGS 1953) to inform historic site conditions in the Study Area.

Additionally, the Study Area falls within the planning area for the PG&E Gas Safety Training facility *the Winters Gas Operations Technical Training Center Environmental Impact Report*[9] and the *Preliminary Delineation of Waters of the United States, Including Wetlands, for the PG&E Winters Gas Operations Technical Training Center*[10]. A copy of the verified delineation was not readily available to review.

Results

No significant changes have occurred within the previously delineated portion of the Winters 61 Study Area. The hay field comprising the majority of the site remains fallow. No additional wetlands, waters, or drainage features where observed in the approximately 10-foot section to the north and east that were added to the Study Area. The remaining portion of the expanded Study Area is made up of a roadside ditch and a large man-made detention basin (PG&E Linear Detention Basin). A culvert under East Main Street connects the northern portion of the Study Area to the PG&E Linear Detention Basin, which drains through a roadside ditch on I-505 to Putah Creek to the south (**Attachment A**). No wetland vegetation was observed within the roadside or PG&E Linear Detention Basin and these features are not currently functioning as wetlands.

The PG&E Linear Detention Basin (**Attachment A**) was installed in 2016 as part of the development of the adjacent PG&E Gas Safety Facility located east of the ditch. The PG&E Linear Detention Basin was installed to collect and temporarily detain storm water flows from the roadside ditches along East Grant Ave, the

[1] U.S. Army Corps of Engineers (USACE). 2016a. *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program*. Dated February 10, 2016. Available online at: http://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/ 651327/updated-map-and-drawing-standards/

[2] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station. Vicksburg, Miss.

[3] U.S. Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

[4] U.S. Army Corps of Engineers (USACE). 2008. A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States. A Delineation Manual. Prepared by R. W. Lichvar and S. M. McColley. ERDC/CRREL TR-08-12. Cold Regions Research and Engineering Laboratory.

[5] U.S. Army Corps of Engineers (USACE). 2016 Minimum Standards for Acceptance of Aquatic Resources Delineation Reports. U.S. Army Corps of Engineers, Sacramento District. Dated January 2016. Available online at: http://www.spk.usace.army.mil/Portals/12/documents/regulatory/jd/minimumstandards/Minimum_Standards_for_Delineation_with_Template-final.pdf

[6] U.S. Army Corps of Engineers 2018. National Wetland Plant List, version 3.4 http://wetland-plants.usace.army.mil/ U.S. Army Corps of Engineers Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover, NH

[7] Jepson Flora Project (eds.) 2020. Jepson eFlora. Available on-line at: http://ucjeps.berkeley.edu/eflora/

[8] Google Earth. 1993-2020. Winters, CA. 38.530132°, -121.961730°. Accessed: October-December 2020.

[9] City of Winters, 2015. Winters Gas Operations Technical Training Center Environmental Impact Report, Prepared by Ascent Environmental for the City of Winters, May 2015. State Clearinghouse No. 2014032005, Winters CA

[10] Garcia and Associates, 2015. Preliminary Delineation of Waters of The United States, Including Wetlands, For The PG&E Winters Gas Operations Technical Training Center (GOTTC) Prepared for PG&E, Submitted to the USACE February 2015

PG&E Gas Safety Academy, and surrounding planned future development consistent with the City of Winters Storm Drain Master Plan. Currently, the PG&E Linear Detention Basin extends south and east from East Grant Ave to a ditch along, I-505, which flows over a concrete apron, down a steep slope, into the Putah Creek just south of the PG&E Linear Detention Basin. The north/south segment of the PG&E Linear Detention Basin is a permanent drainage improvement. The east/west segment would be an interim drainage improvement, until such time as the permanent channel is modified to discharge directly into Putah Creek. Putah Creek does not flood up into the roadside ditch along I-505 or the PG&E Linear Detention Basin. The PG&E Linear Detention Basin is an approximately 60-foot-wide feature with a flat bottom and 3:1 sloped sides. Multiple culvert outlets are located along the PG&E Linear Detention Basin, and at each culvert location the PG&E Linear Detention Basin is lined with rip rap. The PG&E Linear Detention Basin does not exhibit any hydrology indicators at this time, lacking evidence of flow or scour, and is designed to temporarily detain flows from the majority of rain events. Data point DP-6 is typical of the habitats found within the PG&E Linear Detention Basin, which is dominated by upland annual vegetation including lesser canary grass (*Phalaris minor*) (UPL), yellow star thistle (*Centaurea solstitialis*) (UPL), stinkwort (*Dittrichia graveolens*) (UPL), and *blue wild rye* (*Elymus glaucus*) (FACU). Side slopes of the ditch are dominated primary by wild oats (*Avena sp*) (UPL).

The I-505 roadside ditch (**Attachment A, RD-6**) is concrete and rip rap lined within the Study Area, though the section upstream is unlined and primarily bare soil and ruderal vegetation. Data point DP-7 did not contain enough bare soil area to dig a data point however, vegetation growing out of cracks in the concrete apron included black mustard (*Brassica nigra*) (UPL) yellow star thistle (UPL), Johnsongrass (*Sorghum halepense*) (FACU), wild oats (UPL), winter vetch (*Vicia villosa*), and rough cocklebur (*Xanthium strumarium*) (FAC). The upstream (off-site) portion of this ditch was identified as a wetland ditch in the 2015 *Preliminary Delineation of Waters of the United States, Including Wetlands, for the PG&E Winters Gas Operations Technical Training Center*, in areas with poor drainage.

An additional 0.07 acres of upland drainage ditch (RD-5, RD-6) were mapped within the Study Area. These features do not contain wetland vegetation or hydric soils and have been constructed in uplands to drain uplands. They have been designed to direct intermittent flows from adjacent uplands to Putah Creek.

A map of the aquatic resources is included in **Attachment A**, data sheets are included in **Attachment B,** and representative site photographs are included in **Attachment C**. The USACE ORM excel sheet is included in **Attachment D**, and the USACE Delineation Request form in **Attachment E**.

Please contact me at (916) 822-3230 or svonderohe@madroneeco.com if you have any questions.

Sincerely,

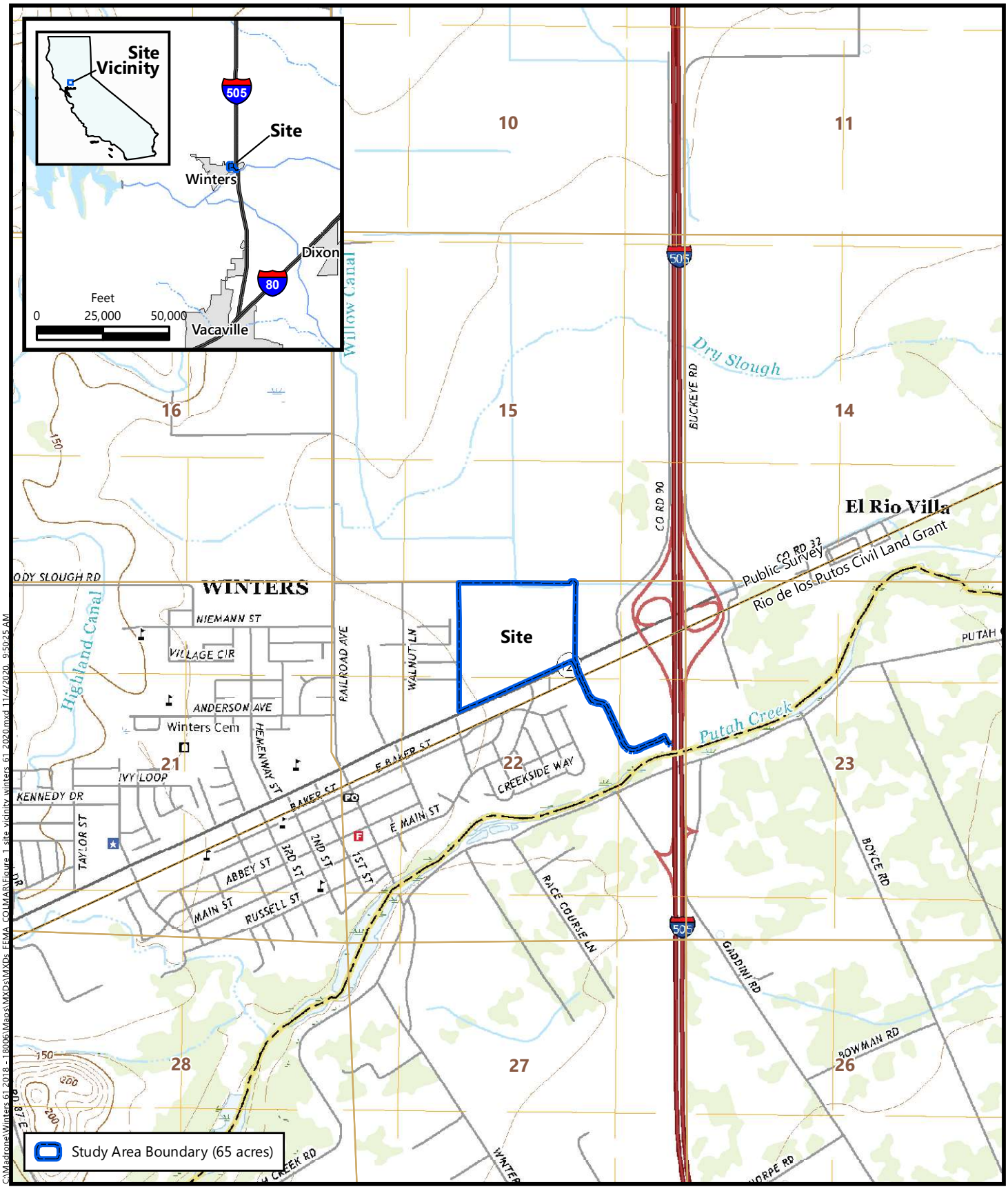
Sarah VonderOhe

Sarah VonderOhe
Principal

Attachments

Figures

Figure 1. Site and Vicinity



Source: United States Geologic Survey, 2018.
Rio de los Putos Civil Land Grant
"Winters, California" 7.5-Minute Topographic Quadrangle
Sections 15 and 22, Township 8 North, Range 1 West, MDB&M
Longitude -121.961496, Latitude 38.530429

Figure 1
Site and Vicinity

Winters 61 Propety
City of Winters, Yolo County, California

MADRONE ECOLOGICAL CONSULTING

Attachments

Attachment A. Map of the Aquatic Resources

Attachment B. Data Sheets

Attachment C. Representative Site Photographs

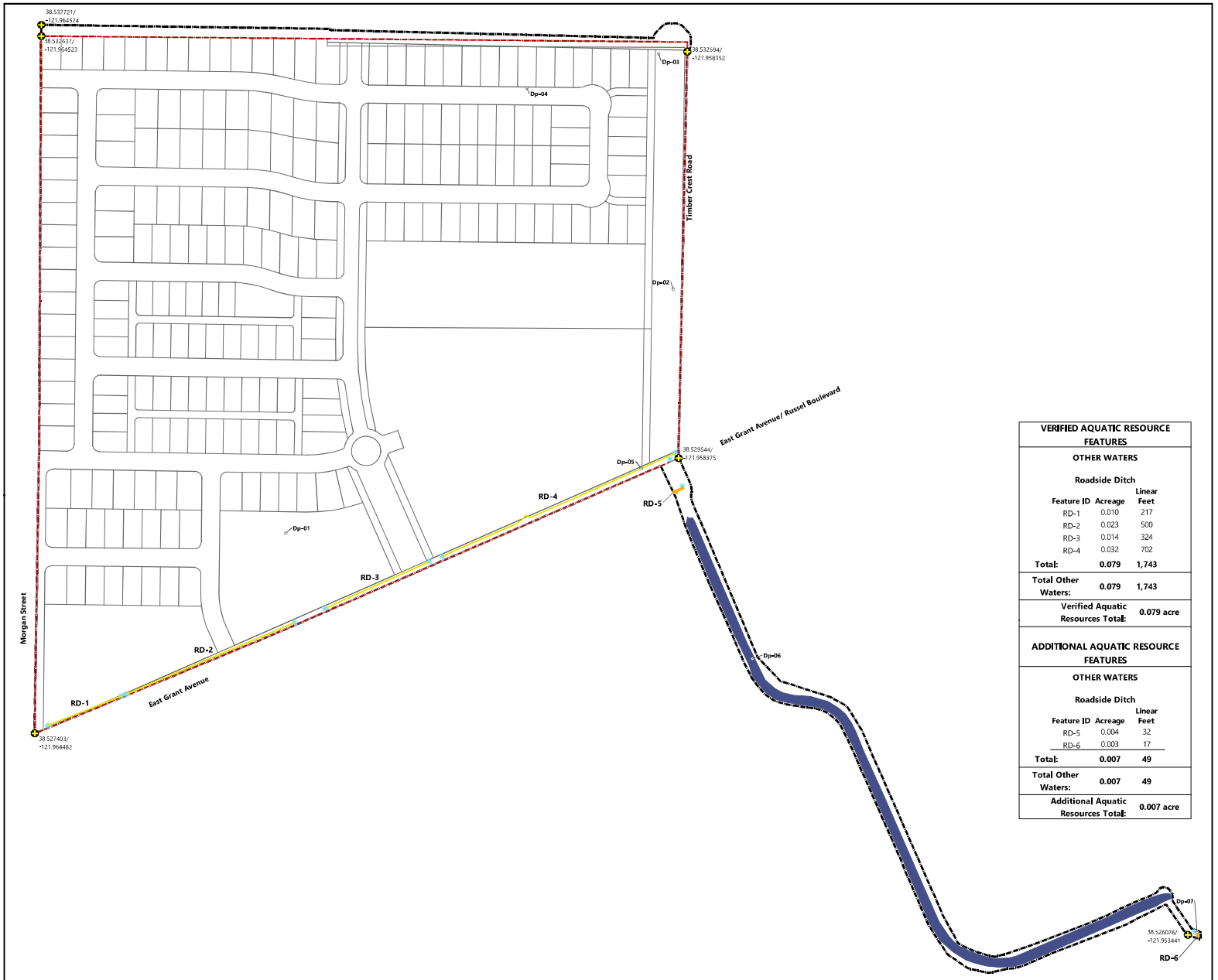
Attachment D. USACE ORM Excel Sheet

Attachment E. USACE Delineation Request Form

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Attachment A

Map of the Aquatic Resources



VERIFIED AQUATIC RESOURCE FEATURES		
OTHER WATERS		
Roadside Ditch		
Feature ID	**Acreage**	**Linear Feet**
RD-1	0.010	217
RD-2	0.023	500
RD-3	0.014	324
RD-4	0.032	702
Total:	**0.079**	**1,743**
Total Other Waters:	**0.079**	**1,743**
Verified Aquatic Resources Total:		**0.079 acre**

ADDITIONAL AQUATIC RESOURCE FEATURES		
OTHER WATERS		
Roadside Ditch		
Feature ID	**Acreage**	**Linear Feet**
RD-5	0.004	32
RD-6	0.003	17
Total:	**0.007**	**49**
Total Other Waters:	**0.007**	**49**
Additional Aquatic Resources Total:		**0.007 acre**

Project Name: Winters 61 Property
Map Title: Winters 61 Property, SPK-2018-00582
MXD: USACE_Rev_ABD_Winters61_2020.MXD
Date Map Prepared: 8 December 2020

Notes:
Full Study Area Scale: 1 inch = 150 feet
Coordinate System: NAD 1983 State Plane California II
Datum: NAD83
Projection: Transverse Mercator
Vertical Data: NAVD88
Lotting Source: Wood Rodgers, Inc.
Date Map Prepared: 27 March 2019
Date Map Revised: 8 December 2020
Map Prepared by: N. Bente
Delineation Performed by: B. Peterson
Definitions:
ac = acre
NAD = North American Datum
NAVD = North American Vertical Datum

N
0 75 150 300
Feet

Prepared For:
Mark Skreden
Skreden Commercial Real Estate
1515 Response Road
Sacramento, CA 95815

- Study Area Boundary (65 acres)
- Verified Delineation Study Area Boundary (61 acres)
- Reference Point (decimal degrees, NAD83)
- Culvert
- Data Point
- Lotting
- PG&E Linear Detention Basin

Verified Aquatic Resources (0.079 acre)
Other Waters
- Roadside Ditch (0.079 acre)

Additional Aquatic Resources (0.007 acres)
Other Waters
- Roadside Ditch (0.007 acre)

Winters 61 Property
SPK-2018-00582

City of Winters, Yolo County, California

MADRONE ECOLOGICAL CONSULTING
8421 Auburn Boulevard, Suite 248
Citrus Heights, California 95610
(916) 822.3220 | www.madroneeco.com

Attachment B

Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Winters 61, SPK-2018-0582 City/County: Winters/Yolo County Sampling Date: 10/21/20
Applicant/Owner: Skreden Commercial Real Estate State: CA Sampling Point: DP-6
Investigator(s): Bonnie Peterson Section, Township, Range: Section 22, Township 8 North, Range 1
Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 1
Subregion (LRR): Mediterranean California (LRR C) Lat: 38.52805337 Long: -121.9576532 Datum: NAD 83
Soil Map Unit Name: Brentwood silty clay loam, 0 to 2% slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area within a Wetland?** Yes No **X**
Hydric Soil Present?	Yes	No X	
Wetland Hydrology Present?	Yes	No X	

Remarks: Data point selected in PG&E Ditch, installed in uplands in the spring of 2016 to direct flows from the adjacent PG&E gas training facility development.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Phalaris minor*	60	Y	UPL
2. *Centaurea solstitialis*	10	N	UPL
3. *Dittrichia graveolens*	5	N	UPL
4. *Elymus glaucus*	20	N	FACU
5.			
6.			
7.			
8.			
	95	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)
Total Number of Dominant Species Across All Strata: **1** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x1 =	**0**
FACW species	**0**	x2 =	**0**
FAC species	**0**	x3 =	**0**
FACU species	**20**	x4 =	**80**
UPL species	**75**	x5 =	**375**
Column Totals:	**95** (A)		**455** (B)

Prevalence Index = B/A = **4.8**

Hydrophytic Vegetation Indicators:
Dominance Test is >50%
Prevalence Index is ≤3.0[1]
Morphological Adaptationd[1] (Provide supporting data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No **X**

Remarks:

SOIL

Sampling Point: DP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10 yr 4/3	100					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Asphalt base, no soils.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Winters 61, SPK-2018-0582 City/County: Winters/Yolo County Sampling Date: 10/21/20
Applicant/Owner: Skreden Commercial Real Estate State: CA Sampling Point: DP-7
Investigator(s): Bonnie Peterson Section, Township, Range: Section 22, Township 8 North, Range 1
Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3
Subregion (LRR): Mediterranean California (LRR C) Lat: 38.52605686 Long: -121.9533672 Datum: NAD 83
Soil Map Unit Name: Brentwood silty clay loam, 0 to 2% slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Data point selected in roadside ditch along HWY 113. Large culverts extend from the PG&E ditch to an offsite portion of this ditch (Upstream of data point), and culvert outlet with apparent inlet is located at data point. Ditch drops down a concrete apron into Putah Creek to the south. No surface evidence of flow or water staining observed, but the ditch is clearly designed to direct flows from the roadway towards Putah Creek.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 1 meter^2)			
1. *Xanthium strumarium*	5	N	FAC
2. *Centaurea solstitialis*	6	N	UPL
3. *Sorghum halepense*	10	Y	FACU
4. *Brassica nigra*	20	Y	FACU
5. *Avena barbata*	5	N	UPL
6. *Vicia villose*	6	N	UPL
7.			
8.			
	52	=Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum 48* % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)
Total Number of Dominant Species Across All Strata: **2** (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	**0**	x1 = **0**
FACW species	**0**	x2 = **0**
FAC species	**5**	x3 = **15**
FACU species	**30**	x4 = **120**
UPL species	**17**	x5 = **85**
Column Totals:	**52** (A)	**220** (B)

Prevalence Index = B/A = **4.2**

Hydrophytic Vegetation Indicators:
_____ Dominance Test is >50%
_____ Prevalence Index is ≤3.0[1]
_____ Morphological Adaptationd[1] (Provide supporting data in Remarks or on a separate sheet)
_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: *Concrete

SOIL

Sampling Point: DP-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
NA								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks: Concrete apron and ripwrap, no soils.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology.

Attachment C

Representative Site Photographs

Attachment C. Representative Site Photos



Data Point DP-6, in PG&E ditch facing south – 28 October 2020



Data Point DP-7 facing south in RD-6. Upstream end of culvert was not found– 28 October 2020

Attachment C. Representative Site Photos



Hwy 113 roadside ditch (RD-6), north of DP-7, outside Study Area facing north – 28 October 2020



Roadside ditch RD-5 from outside Study Area facing east– 28 October 2020

Attachment C. Representative Site Photos



Eastern end of the PG&E Ditch (PD-1) facing west – 28 October 2020



Northern end of PG&E ditch facing north towards RD-5 – 28 October 2020

Attachment D

USACE ORM Excel Sheet

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	NWPR_Determine_Code	Latitude	Longitude	Local_Waterway
RD-1	CALIFORNIA	R4		Area	0.010	ACRE	EXCLDB3III		38.52757977	-121.9640063	
RD-2	CALIFORNIA	R4		Area	0.023	ACRE	EXCLDB3III		38.52798783	-121.9628151	
RD-3	CALIFORNIA	R4		Area	0.014	ACRE	EXCLDB3III		38.52855799	-121.9612308	
RD-4	CALIFORNIA	R4		Area	0.032	ACRE	EXCLDB3III		38.52917848	-121.9595168	
RD-5	CALIFORNIA	R4		Area	0.004	ACRE	EXCLDB3III		38.52930382	-121.958372	Putah Creek
RD-6	CALIFORNIA	R4		Area	0.003	ACRE	EXCLDB3III		38.52603671	-121.9533497	Putah Creek

Attachment E

USACE Delineation Request Form

REQUEST FOR AQUATIC RESOURCES DELINEATION VERIFICATION

OR JURISDICTIONAL DETERMINATION

A separate jurisdictional determination (JD) is not necessary to process a permit. An Approved Jurisdictional Determination (AJD) is required to definitively determine the extent of waters of the U.S. and is generally used to disclaim jurisdiction over aquatic resources that are not waters of the U.S., in cases where the review area contains no aquatic resources, and in cases when the recipient wishes to challenge the water of the U.S. determination on appeal. Either an Aquatic Resources Delineation Verification or a Preliminary Jurisdictional Determination (PJD) may be used when the recipient wishes to assume that aquatic resources are waters of the U.S. for the purposes of permitting. In some circumstances an AJD may require more information, a greater level of effort, and more time to produce. If you are unsure which product to request, please speak with your project manager or call the Sacramento District's general information line at (916) 557-5250.

I am requesting the product indicated below from the U.S. Army Corps of Engineers, Sacramento District, for the review area located at:

Street Address: East Grant Avenue City: Winters County: Yolo
State: CA Zip: 95694 Section: 22 Township: 8N Range: 1W
Latitude (decimal degrees): 38.530535 Longitude (decimal degrees): -121.961685
The approximate size of the review area for the JD is 65 acres. **(Please attach location map)**

Choose one:
- ○ I own the review area
- ○ I hold an easement or development rights over the review area
- ○ I lease the review area
- ○ I plan to purchase the review area
- ◉ I am an agent/consultant acting on behalf of the requestor
- ○ Other:

Choose one product:
- ○ I am requesting an Aquatic Resources Delineation Verification
- ◉ I am requesting an Approved JD
- ○ I am requesting a Preliminary JD
- ○ I am requesting additional information to inform my decision about which product to request

Reason for request: (check all that apply)
- ☐ I need information concerning aquatic resources within the review area for planning purposes.
- ☐ I intend to construct/develop a project or perform activities in this review area which would be designed to avoid all aquatic resources.
- ☐ I intend to construct/develop a project or perform activities in this review area which would be designed to avoid those aquatic resources determined to be waters of the U.S.
- ☐ I intend to construct/develop a project or perform activities in this review area which may require authorization from the Corps; this request is accompanied by my permit application.
- ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district's list of navigable waters under Section 10 of the Rivers and Harbors Act of 1899 and/or is subject to the ebb and flow of the tide.
- ☐ My lender, insurer, investors, local unit of government, etc. has indicated that an aquatic resources delineation verification is inadequate and is requiring a jurisdictional determination.
- ☐ I intend to contest jurisdiction over particular aquatic resources and request the Corps confirm that these aquatic resources are or are not waters of the U.S.
- ☑ I believe that the review area may be comprised entirely of dry land.
- ☐ Other:

Attached Information:
- ☑ Maps depicting the general location and aquatic resources within the review area consistent with Map and Drawing Standards for the South Pacific Division Regulatory Program (Public Notice February 2016, http://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/651327/updated-map-and-drawing-standards/)
- ☑ Aquatic Resources Delineation Report, if available, consistent with the Sacramento District's Minimum Standards for Acceptance (Public Notice January 2016, http://1.usa.gov/1V68IYa)

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the review area. Your signature shall be an affirmation that you possess the requisite property rights for this request on the subject property.

*Signature: Sarah VonderOhe Date: 12/08/2020
Name: Sarah VonderOhe Company name: Madrone Ecological Consulting, LLC
Address: 8421 Auburn Blvd., Suite 248
Citrus Heights, CA 95610
Telephone: 916-822-3230 Email: svonderohe@madroneeco.com

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Appendix J

Environmental Noise & Vibration Assessment

Farmstead Mixed-Use Subdivision

Winters, California

BAC Job # 2021-132

Prepared For:

Raney Planning & Management, Inc.

Attn: Megane Browne-Allard
1501 Sports Drive, Suite A
Sacramento, CA, 95834

Prepared By:

Bollard Acoustical Consultants, Inc.

Dario Gotchet, Principal Consultant

June 19, 2024

BOLLARD
Acoustical Consultants

Bollard Acoustical Consultants, Inc. | P.O. Box 7968, Auburn, CA 95604 | Phone: (530) 537-2328 | bacnoise.com

Introduction

The proposed Farmstead Mixed-Use Subdivision (project) is located north of Grant Avenue/State Route 128, and west of Timber Crest Road in Winters, California. Existing land uses within the immediate project vicinity include agricultural to north (with residence), single-family residential neighborhoods to the south and west, industrial to the east (with residence), and commercial to the southwest (supermarket and convenience store / fueling station). The project area and surrounding land uses are shown in Figure 1.

The project consists of the development of a 61.9-acre parcel comprised of 329 residential units of varying densities, commercial, and park land uses. The illustrative plan for the proposed development is presented in Figure 2.

The purposes of this assessment are to quantify the existing noise and vibration environments, identify potential noise and vibration impacts resulting from the project, identify appropriate mitigation measures, and provide a quantitative and qualitative analysis of impacts associated with the project. Specifically, impacts are identified if project-related activities would cause a substantial increase in ambient noise levels at existing sensitive uses in the project vicinity (i.e., residences), or if traffic or project-generated noise or vibration levels would exceed applicable federal, state, or local (City of Winters) standards at existing or proposed sensitive uses.

Noise and Vibration Fundamentals

Noise

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are designated as sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or Hertz (Hz). Definitions of acoustical terminology are provided in Appendix A.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure) as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Noise levels associated with common noise sources are provided in Figure 3.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by filtering the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of

environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}). The L_{eq} is the foundation of the day-night average noise descriptor, DNL (or L_{dn}), and shows very good correlation with community response to noise. DNL is based on the average noise level over a 24-hour day, with a +10-decibel weighting applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours. The nighttime penalty is based on the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because DNL represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, while vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of amplitude and frequency. A person's response to vibration will depend on their individual sensitivity as well as the amplitude and frequency of the source.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of velocity in inches per second peak particle velocity (IPS, PPV) or root-mean-square (VdB, RMS). Standards pertaining to perception as well as damage to structures have been developed for vibration in terms of peak particle velocity as well as RMS velocities. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases.

According to the Transportation and Construction-Induced Vibration Guidance Manual (Caltrans, April 2020), operation of construction equipment and construction techniques generate ground vibration. Traffic traveling on roadways can also be a source of such vibration. At high enough amplitudes, ground vibration has the potential to damage structures and/or cause cosmetic damage. However, traffic rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.



Legend

- Project Area Boundary (Approximate)
- Long-Term Noise & Short-Term Vibration Survey Site
- Long-Term Noise Survey Site

N

Scale (Feet)

0 250 500

Farmstead Mixed-Use Subdivision
Winters, California

Project Area

Figure 1

BOLLARD Acoustical Consultants

888



Dated: January 9, 2024

Legend

Project Area Boundary

N

Scale (Feet)

0 200 400

Farmstead Mixed-Use Subdivision

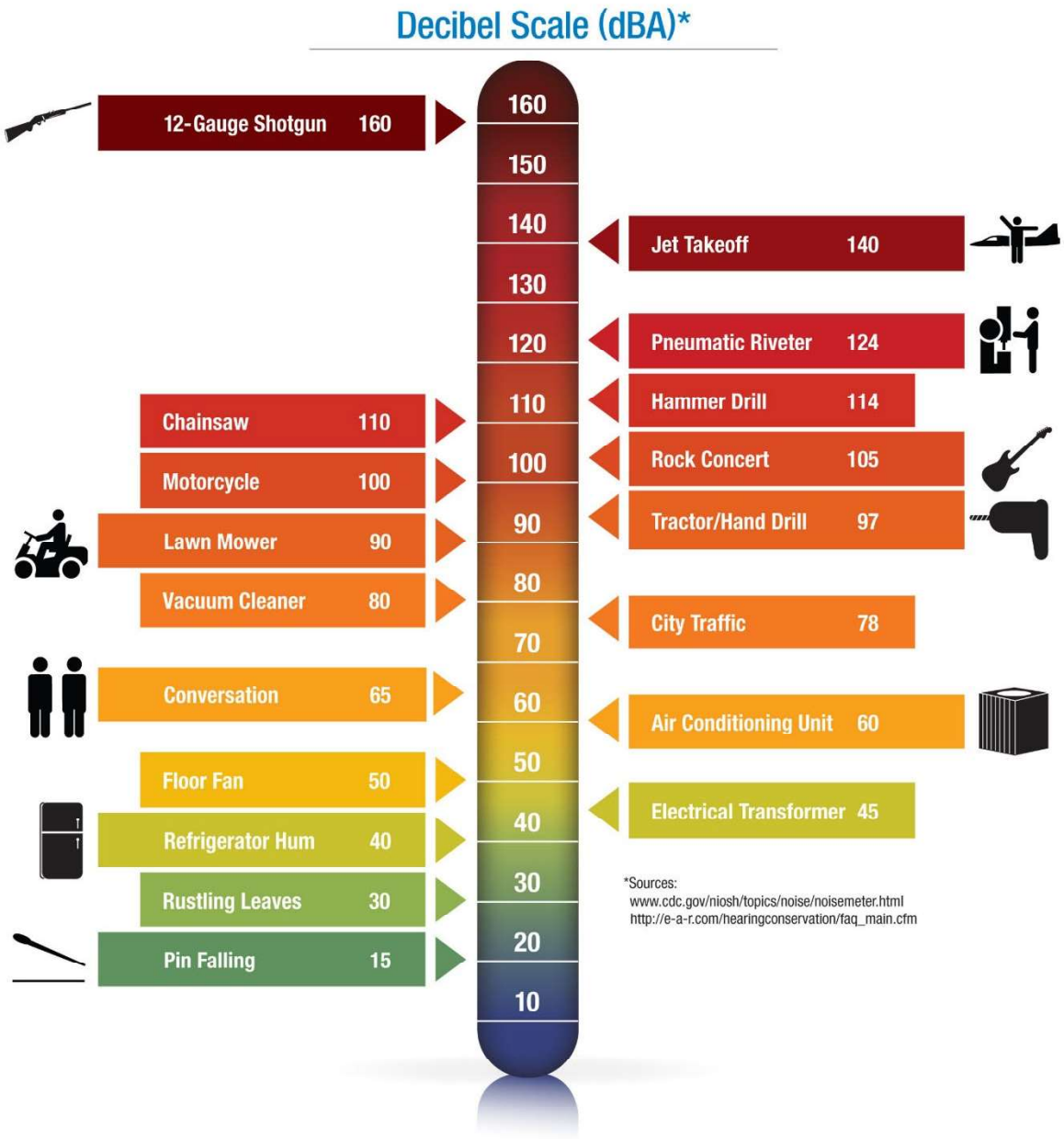
Winters, California

Illustrative Map

Figure 2

BOLLARD Acoustical Consultants

Figure 3
Noise Levels Associated with Common Noise Sources



Environmental Setting – Existing Ambient Noise and Vibration Environment

Existing Land Uses in the Project Vicinity

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities. The existing noise-sensitive land uses which would potentially be affected by the project consist of residential uses. Commercial uses are also located within the project vicinity but such uses are typically not considered to be noise-sensitive, but rather noise-generating.

Existing Overall Ambient Noise Environment within the Project Area

The existing ambient noise environment within the project area is defined primarily by traffic on Grant Avenue and distant traffic on Interstate 505 (I-505). To generally quantify existing ambient noise environment within the project area, BAC conducted long-term (48-hour) ambient noise level measurements at four (4) locations September 22-23, 2021. The long-term noise survey locations are shown in Figure 1. Photographs of the noise survey locations are provided in Appendix B.

BAC noise measurement site 1 was specifically selected to capture the ambient noise level environment along the west end of the project property adjacent to the existing residential neighborhood. Measurement site 2 was selected to be representative of the ambient noise level environment along the north end of the project property, including at the existing residence constructed on the agricultural land north of the project. Noise measurements obtained at site 3 are believed to be representative of the ambient noise level environment at the east end of the project property near Grant Avenue, including at the residence constructed on industrial land east of the project. Finally, BAC site 4 was specifically selected to be representative of the existing ambient noise level environment at the southwest end of the project property, as well as for at the closest existing residential uses to the south and southwest the project property.

Larson Davis Laboratories (LDL) Model 820 and 831 precision integrating sound level meters were used to complete the long-term noise level surveys. The meters were calibrated immediately before use with an LDL Model CA200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all specifications of the American National Standards Institute requirements for Type 1 sound level meters (ANSI S1.4).

The results of the long-term ambient noise survey are shown numerically and graphically in Appendices C and D (respectively) and are summarized in Table 1.

Table 1
Summary of Long-Term Ambient Noise Survey Results – September 22-23, 2021[1]

Survey Location[2]	Date	DNL (dB)	Average Measured Hourly Noise Levels (dBA)[3]					
			Daytime			Nighttime		
			L_{eq}	L_{max}	L_8	L_{eq}	L_{max}	L_8
Site 1: Western project property boundary adjacent to residences	9/22/23	55	47	65	47	49	60	49
	9/23/23	54	47	63	49	47	58	50
Site 2: Northern project property boundary near residence	9/22/23	56	50	63	46	49	60	49
	9/23/23	54	49	66	49	47	59	49
Site 3: Eastern project boundary near residence along Grant Ave	9/22/23	71	68	85	72	63	78	66
	9/23/23	70	68	85	72	63	78	65
Site 4: Southwest project boundary near residences and commercial uses	9/22/23	59	53	67	54	52	64	54
	9/23/23	58	52	66	52	51	63	53

[1] Detailed summaries of the noise monitoring results are provided in Appendices C and D.
[2] Long-term ambient noise monitoring locations are identified in Figure 1.
[3] Daytime hours: 7:00 AM to 10:00 PM | Nighttime hours: 10:00 PM to 7:00 AM

Source: BAC 2021

As shown in Table 1, measured day-night average levels (DNL) and average measured hourly noise levels (L_{eq}, L_{max}, L_8) were consistent at each individual site throughout the monitoring period (i.e., small range of measured levels).

Existing Ambient Vibration Environment within the Project Area

During BAC visits to the project site, vibration levels were below the threshold of perception within the project area. Nonetheless, to quantify existing vibration levels at the project site, BAC conducted short-term (10-minute) vibration measurements at the three (3) survey locations identified in Figure 1 on September 24th, 2021. A Larson-Davis Laboratories Model LxT precision integrating sound level meter equipped with a vibration transducer was used to complete the measurements. The results are summarized in Table 2.

Table 2
Summary of Short-Term Ambient Vibration Survey Results – September 24th, 2021

Survey Location	Time	Measured Maximum Vibration Level, PPV (in/sec)[1]
Site 1: Western project property boundary adjacent to residences	10:17 a.m.	<0.001
Site 2: Northern project property boundary near residence	9:57 a.m.	<0.001
Site 3: Eastern project boundary along Grant Ave	9:34 a.m.	0.027

RMS velocity in decibels (VdB) re 1 micro-inch/second

Source: BAC 2021

The Table 2 data indicate that measured maximum vibration levels within the project area ranged from less than 0.001 to 0.027 in/sec PPV.

Existing Traffic Noise Levels Along Project Area Roadway Network

To predict traffic noise levels along existing roadway networks, modelling is commonly used rather than monitoring. The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The Model was also used to quantify the distances to the 60, 65 and 70 dB DNL traffic noise contours for these roadways. The FHWA Model predicts hourly average (L_{eq}) values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values.

Existing traffic data in the form of AM and PM peak hour intersection turning movements were obtained from the traffic impact analysis prepared by the project transportation consultant (Fehr & Peers). Those data were converted to Average Daily Traffic (ADT) segment volumes by applying a factor of 5 to the sum of AM and PM peak hour conditions. Other inputs were obtained from BAC observations and noise measurement data. The existing traffic noise levels at the distances representing the nearest noise-sensitive land uses to the project area roadways and distances from the centerlines of selected roadways to the 60 dB, 65 dB and 70 dB DNL contours are summarized in Table 3. Appendix E contains the FHWA Model inputs for existing conditions.

It should be noted that the FHWA Model predictions presented in Table 3 are based on inputs that include weekday peak hour traffic volumes, day/night, and truck type percentages (e.g., medium and heavy trucks), vehicle speed, and distance from roadway centerlines. The FHWA Model does not account for non-traffic ambient noise sources such as nearby wildlife (e.g., birds chipping) or other anthropogenic noise sources within an area (e.g., distant traffic from other roadways, recreational activities, commercial or industrial operations, etc.).

Table 3
Existing Traffic Noise Levels at Nearest Receptors and Distances to DNL Contours

#	Roadway	Segment Description	DNL at Nearest Existing Sensitive Receptor	Distance to Contour (ft)		
				70 dB DNL	65 dB DNL	60 dB DNL
1	Grant Ave	West of Railroad Ave	60	22	47	102
2	Grant Ave	Railroad Ave to Dutton St	59	27	58	125
3	Grant Ave	Dutton St to Walnut Ln	56	27	59	126
4	Grant Ave	Walnut Ln to Morgan St	59	26	57	122
5	Grant Ave	Morgan St to Project Street A	56	43	93	201
6	Grant Ave	Project Street A to Farmstead Drwy W	56	43	93	201
7	Grant Ave	Farmstead Drwy W to E Main St	56	43	93	201
8	Grant Ave	E Main St to Farmstead Drwy E	53	45	97	209
9	Grant Ave	Farmstead Drwy E to Timbercrest Rd	59	45	97	209
10	Grant Ave	Timbercrest Rd to County Rd 90	65	45	97	210
11	Grant Ave	County Rd 90 to I-505 SB Ramps	53	45	98	210
12	Grant Ave	I-505 SB Ramps to I-505 NB Ramps	49	38	83	179
13	Grant Ave	East of I-505 NB Ramps	64	31	66	143
14	Railroad Ave	North of Grant Ave	59	19	40	86
15	Railroad Ave	South of Grant Ave	56	12	26	55
16	Railroad Ave	North of Grant Ave	47	3	6	14
17	Dutton St	North of Grant Ave	49	4	9	19
18	Walnut Ln	South of Grant Ave	37	2	4	10
19	Walnut Ln	North of Grant Ave	--	--	--	--
20	Morgan St	South of Grant Ave	51	4	9	20
21	Morgan St	South of Grant Ave	50	4	8	17
22	E Main St	North of Grant Ave	25	0	0	1
23	PG&E Way	South of Grant Ave	33	1	2	3
24	County Rd 90	North of Grant Ave	48	8	18	38
25	County Rd 90	South of Grant Ave	--	--	--	--
26	I-505 SB Ramps	South of Grant Ave	45	20	42	91
27	I-505 NB Ramps	North of Grant Ave	46	26	55	119

Source: FHWA-RD-77-108 and Fehr & Peers

Regulatory Setting: Criteria for Acceptable Noise and Vibration Exposure

Federal

There are no federal noise or vibration criteria which would be directly applicable to this project.

State of California

California Environmental Quality Act (CEQA)

The State of California has established regulatory criteria that are applicable to this assessment. Specifically, Appendix G of the State of California Environmental Quality Act (CEQA) Guidelines are used to assess the potential significance of impacts pursuant to local General Plan policies, Municipal Code standards, or the applicable standards of other agencies. According to Appendix G of the CEQA guidelines, the project would result in a significant noise or vibration impact if the following occur:

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or other applicable standards of other agencies.

B. Generation of excessive groundborne vibration or groundborne noise levels.

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

It should be noted that audibility is not a test of significance according to CEQA. If this were the case, any project which added any audible amount of noise to the environment would be considered significant according to CEQA. Because every physical process creates noise, the use of audibility alone as significance criteria would be unworkable. CEQA requires a substantial increase in noise levels before noise impacts are identified, not simply an audible change.

Local

City of Winters General Plan

The Health and Safety chapter of the City of Winters General Plan (Section 7) contains the County's noise-related policies. The specific policies which are generally applicable to this project are reproduced below:

Policies

7.E.1 The City shall evaluate the compatibility of various land uses with nearby noise sources based on the standards in Table 4 (General Plan Table II-3).

7.E.2 The City shall require new residential development to comply with applicable provisions of the *California State Noise Insulation Standards (California Code of Regulations, Title 24, Part 2, Appendix, Chapter 35*) and the *Uniform Building Code (Appendix Chapter 35)*, and updates thereof. These provisions include, but are not limited to, the following standards:

a) L_{dn} values due to exterior noise sources shall not exceed 45 dBA inside habitable rooms of new multi-family dwellings (apartments, condominiums, hotels, motels, etc.).

b) Assemblies dividing units within multi-family dwellings shall have laboratory certified STC ratings of 50 or more (NIC 45 or more if field tested). In addition, floor/ceiling assemblies shall have laboratory certified IIC ratings of 50 or more (45 if field tested).

7.E.3 L_{dn} values above 45 dBA due to exterior noise sources shall be prohibited inside habitable rooms of all new dwellings.

7.E.4 Non-transportation noise sources which are potentially intrusive shall be evaluated in terms of the noise level limits in Tables 5 and 6 (General Plan Tables II-4 and II-5). In applying these limits, the corrections in Table 7 (General Plan Table II-6) shall be added to account for the nature of the noise.

7.E.6 Any project that would cause existing traffic-related noise levels in existing residential areas to increase more than 3 dB shall be required to evaluate the feasibility of noise mitigation measures.

7.E.7 The City may also require preparation of a noise study when L_{dn} standards are met or inapplicable, but 1) a potentially intrusive noise source is proposed near a noise-sensitive area, or 2) a noise-sensitive land use is proposed near a potentially intrusive noise source.

7.E.8 Required noise studies shall be the responsibility of the project applicant, and shall be consistent with the state guidelines for noise study reports. Such studies shall be performed by a qualified consultant and shall include the following:

a) A summary of noise data collected, and/or descriptions of the methodologies used to determine existing and expected noise levels and noise descriptors such as L_{eq} or L_{dn}.

b) Figures or maps showing the locations of noise sources and noise-sensitive areas.

c) A description of the impacts of existing and future (20 years hence) noise levels on the project and/or impacts due to the project on the surrounding area. The standards in this section of the *General Plan Policy Document* shall form the basis for impact assessment.

d) Specifications of any noise mitigation measures recommended to ensure compliance with the standards in this *General Plan Policy Document*.

e) Description of the expected effects of the mitigation measures.

7.E.11 The City shall encourage development designers to minimize noise levels through such measures as the following:

a) Locating outdoor activity spaces such as yards, patios, and decks in areas where noise levels are low.

b) Locating and orienting buildings to place noise-sensitive indoor spaces such as living rooms and bedrooms in areas with low noise levels.

c) Locating relatively non-noise-sensitive structures such as commercial buildings to shield noise-sensitive areas such as residences and care facilities from noise sources.

d) Using berms, walls, and setbacks to shield noise-sensitive areas from noise sources. Walls shall only be used as a last resort.

e) Provide appropriate muffling devices or enclosures for new noise sources located near noise-sensitive areas.

Table 4
Land Use Compatibility Standards – Transportation Noise Sources

	Exterior DNL (dBA)				
Land Use Category	**Clearly Acceptable**	**Normally Acceptable**	**Conditionally Acceptable**	**Normally Unacceptable**	**Clearly Unacceptable**
Residential[1]	--	60	61-65	66-70	71-75
Outdoor Public Facilities[2]	--	60	61-65	66-70	71-75
Public Buildings[3]	60	61-65	66-70	71-75	--
Commercial[4]	60	61-65	66-70	71-75	--
Industrial[5]	61-65	66-70	71-75	--	--

[1] Single- and multi-family dwellings, including mobile homes, duplexes, apartments, condominiums, hotels and motels.
[2] Parks, playgrounds (including school playgrounds), picnic areas, amphitheaters, golf courses, trails and water recreation.
[3] School buildings, libraries, churches, hospitals, nursing homes, auditoriums, concert halls and sports arenas.
[4] Office buildings, retail, business and professional facilities.
[5] Manufacturing, utilities and agricultural facilities.

Source: City of Winters General Plan, Table II-3

Table 5
Exterior Noise Level Limits – Non-Transportation Noise Sources

	Exterior Noise Level Limit (dBA)[1,2]	
Land Use Zone	**Daytime (7 a.m. to 10 p.m.)**	**Nighttime (10 p.m. to 7 a.m.)**
Rural (OS)	50	40
Residential (R-1 through R-4)	50	45
Parks & Recreation (P-R)	50	45
Commercial (C-1, C-2, NC, CH, CS)	63	45
Manufacturing/Industrial (M-1, M-2, PI)	73	70

[1] These limits on intrusive noise are to be applied at any point within the boundaries of a property zoned as indicated.
[2] Each limit is the noise level which is not to be exceeded continuously during any five-minute period. If the noise level varies above and below the limit, the limit shall not be exceeded during more than one time interval in any five-minute period. Noise levels higher than the applicable limit plus 15 dB are prohibited at all times.

Source: City of Winters General Plan, Table II-4

Table 6
Interior Noise Level Limits – Non-Transportation Noise Sources

	Interior Noise Level Limit (dBA)[1,2]	
Land Use Zone	**Daytime (7 a.m. to 10 p.m.)**	**Nighttime (10 p.m. to 7 a.m.)**
Residential (R-1 through R-4)	45	35

[1] These limits on intrusive noise are not to be exceeded at any point within a dwelling.
[2] Each limit is the noise level which is not to be exceeded continuously during any five-minute period. If the noise level varies above and below the limit, the limit shall not be exceeded during more than one time interval in any five-minute period. Noise levels higher than the applicable limit plus 15 dB are prohibited at all times.

Source: City of Winters General Plan, Table II-5

Table 7
Corrections to Noise Levels – Non-Transportation Noise Sources

Correction Type	Circumstances	Correction to Noise Level[1]
Seasonality	Summer (or year-round operation)	0
	Winter only (or windows always closed)	-5
Character of Sound	No tonal, impulsive, or music/speech	0
	Tonal components present	+5
	Impulsive noise	+5
	Music or speech	+5
Exposure	No prior experience with the subject noise	+5
	Some previous exposure to subject noise	0
	No previous exposure to subject noise	0
	Considerable previous exposure to subject noise	-5
	Source is very necessary, source is temporary	-10

[1] These corrections are to be used in conjunction with the standards specified in Tables 7 and 8.

Source: City of Winters General Plan, Table II-6

City of Winters Municipal Code

The provisions of the City of Winters Municipal Code which would be most applicable to this project are reproduced below.

8.20.070 Prohibited actions.

B. Specific Prohibitions.

4. Construction/Demolition. Operating any power tools or equipment used in construction, drilling, repair, alteration, demolition work, or property maintenance between weekday and Saturday hours of seven p.m. and seven a.m. or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial property line. Domestic power tools or equipment may be operated to ten p.m. provided the maximum noise level across the residential property line shall not exceed seventy (70) dBA;

5. Vibration. Operating or permitting the operation of any device that creates a vibration which is above the vibration perception threshold of an individual at or beyond the real

property boundary of the source if on private property or at one hundred fifty (150) feet (forty-six (46) meters) form the source if on a public space or public right-of-way;

8.20.90 Exemptions.

B. Existing Industrial/Commercial Operations.

1. Noise sources associated with existing food processing, agricultural packing, dairy or other industrial or commercial operations; provided, that noise levels generated by such operations do not exceed current levels; and provided further, that such operations do not exceed the noise level limits set out in Table 7-1 (Section 8.20.060).

Note: Sections 8.20.060 and 17.68.030 of the City of Winters Municipal Code contain performance standards for non-transportation noise sources. However, those standards are identical to those contained in the City of Winters General Plan. Thus, compliance with the applicable General Plan noise level criteria would ensure compliance with applicable Municipal Code criteria.

Impacts and Mitigation Measures

Thresholds of Significance

For the purposes of this assessment, a noise or vibration impact is considered significant if the project would result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or other applicable standards of other agencies; or
- Generation of excessive groundborne vibration or groundborne noise levels; or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

The project area is not within the vicinity of a private airstrip, an airport land use plan, or within two miles of a public airport. Therefore, the last threshold listed above is not discussed further.

The following criteria established by the City of Winters General Plan and City of Winters Municipal Code were used to evaluate the significance of environmental noise and vibration resulting from the project:

- A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise criteria presented in the City of Winters General Plan or Municipal Code.

- A significant impact would be identified if project-generated off-site traffic would substantially increase noise levels at existing sensitive receptors in the vicinity. A substantial increase would be identified relative to the noise level increase significance criteria contained in Policy 7.E.6 of the City of Winters General Plan.

  In terms of determining the temporary noise increase due to project on-site activities and construction equipment at existing sensitive receptors in the vicinity, an impact would occur if those activities would noticeably increase ambient noise levels above background levels at those locations. The threshold of perception of the human ear is approximately 3 to 5 dB – a 5 dB change is considered to be clearly noticeable. For the analysis of project on-site activities and construction equipment noise level increases at existing sensitive receptors, a noticeable increase in ambient noise levels is assumed to occur where those activities would result in an increase by 5 dB or more over existing ambient noise levels.

- A significant impact would be identified if project construction equipment or proposed on-site activities would expose sensitive receptors to excessive groundborne vibration levels. Specifically, an impact would be identified if groundborne vibration levels due to these sources would be above the vibration perception threshold of an individual at or beyond the project property boundary.

Noise Impacts Associated with Project-Generated Increases in Off-Site Traffic

With development of the project, traffic volumes on the local roadway network will increase. Those increases in daily traffic volumes will result in a corresponding increase in traffic noise levels at existing uses located along those roadways. Impacts 1 & 2 evaluate increases in off-site traffic noise levels which would result from the project.

Impact 1: Increases in Existing Traffic Noise Levels due to the Project

The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify increases in existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values.

Traffic data in the form of peak hour intersection turning movements were obtained from the traffic impact analysis prepared by the project transportation consultant (Fehr & Peers). Those data were converted to Average Daily Traffic (ADT) segment volumes by applying a factor of 5 to the sum of AM and PM peak hour conditions. Other inputs were obtained from BAC observations and noise measurement data. Appendices F and G contain the FHWA Model inputs for Existing Plus Approved Projects (EPAP) and Existing Plus Approved Projects Plus Project (EPAP+P) conditions, respectively. The EPAP and EPAP+P traffic noise levels at the distances representing the nearest existing noise-sensitive land uses to the project area roadways (i.e., residential) are summarized in Table 8. Table 8 also shows the thresholds for determination of a significant traffic noise increase, whether the roadway segment contains noise-sensitive uses, and whether or not significant noise impacts are identified for each segment.

Table 8
Predicted Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – EPAP vs. EPAP Plus Project Conditions

#	Roadway	Segment Description	Predicted DNL (dB)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			EPAP	EPAP+P	Increase				
1	Grant Ave	West of Railroad Ave	60.7	60.8	0.1	>3.0	No	**Yes**	No
2	Grant Ave	Railroad Ave to Dutton St	59.1	59.4	0.3	>3.0	No	**Yes**	No
3	Grant Ave	Dutton St to Walnut Ln	55.9	56.2	0.3	>3.0	No	**Yes**	No
4	Grant Ave	Walnut Ln to Morgan St	59.1	59.3	0.2	>3.0	No	**Yes**	No
5	Grant Ave	Morgan St to Project Street A	56.8	57.1	0.3	>3.0	No	**Yes**	No
6	Grant Ave	Project Street A to Farmstead Drwy W	56.8	56.9	0.1	>3.0	No	**Yes**	No
7	Grant Ave	Farmstead Drwy W to E Main St	56.8	56.9	0.1	>3.0	No	**Yes**	No
8	Grant Ave	E Main St to Farmstead Drwy E	53.4	53.8	0.4	>3.0	No	**Yes**	No
9	Grant Ave	Farmstead Drwy E to Timbercrest Rd	59.1	59.6	0.4	>3.0	No	**Yes**	No
10	Grant Ave	Timbercrest Rd to County Rd 90	65.4	65.7	0.4	>3.0	No	**Yes**	No
11	Grant Ave	County Rd 90 to I-505 SB Ramps	53.2	53.5	0.4	>3.0	No	**Yes**	No
12	Grant Ave	I-505 SB Ramps to I-505 NB Ramps	49.3	49.6	0.3	>3.0	No	**Yes**	No
13	Grant Ave	East of I-505 NB Ramps	64.7	65.0	0.3	>3.0	No	**Yes**	No
14	Railroad Ave	North of Grant Ave	59.6	59.8	0.2	>3.0	No	**Yes**	No
15	Railroad Ave	South of Grant Ave	56.8	56.9	0.1	>3.0	No	**Yes**	No
16	Railroad Ave	North of Grant Ave	48.2	48.2	0.0	>3.0	No	**Yes**	No
17	Dutton St	North of Grant Ave	51.1	50.2	0.0	>3.0	No	**Yes**	No
18	Walnut Ln	South of Grant Ave	40.0	40.3	0.2	>3.0	No	**Yes**	No
19	Walnut Ln	North of Grant Ave	--	--	--	--	--	--	--
20	Morgan St	South of Grant Ave	52.5	52.7	0.2	>3.0	No	**Yes**	No
21	Morgan St	South of Grant Ave	51.1	52.1	1.0	>3.0	No	**Yes**	No
22	E Main St	North of Grant Ave	32.0	32.0	0.0	>3.0	No	**Yes**	No
23	PG&E Way	South of Grant Ave	43.7	43.7	0.0	>3.0	No	**Yes**	No
24	County Rd 90	North of Grant Ave	48.5	48.7	0.2	>3.0	No	**Yes**	No
25	County Rd 90	South of Grant Ave	--	--	--	--	--	--	--
26	I-505 SB Ramps	South of Grant Ave	45.6	46.0	0.4	>3.0	No	**Yes**	No
27	I-505 NB Ramps	North of Grant Ave	46.0	46.3	0.2	>3.0	No	**Yes**	No

[1] Significance threshold contained in City of Winters General Plan Policy 7.E.6 (greater than 3 dB).
[2] Sensitive receptors identified as outdoor activity areas (backyards) of existing residential uses.
[3] A significant impact is identified only along segments where project-related traffic noise level increases would exceed threshold AND where sensitive receptors are present.

Source: FHWA-RD-77-108 with inputs from Fehr & Peers

Based on the analyses presented in Table 8, project-generated traffic noise level increases would not result in significant noise impacts at existing noise-sensitive receptors located along the project area roadway network. As a result, this impact is identified as being ***less than significant***.

Impact 2: Increases in Cumulative Traffic Noise Levels due to the Project

The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify increases in future (cumulative) traffic noise levels at the nearest existing noise-sensitive land uses to the project area roadway network. This analysis first assesses whether a cumulative roadway noise impact would occur by comparing the cumulative with project conditions to existing conditions, which is presented in Table 9. If a cumulative roadway noise impact is identified along a roadway segment in Table 9, it is further evaluated to assess whether the proposed project would make a cumulatively considerable contribution to the cumulative impact along that segment. This process is completed through a comparison of the roadway noise associated with the cumulative with project scenario against the cumulative no-project scenario, which is shown in Table 10. Appendices H and I contain the FHWA Model inputs for Cumulative No Project and Cumulative Plus Project conditions.

Table 9
Predicted Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – Existing vs. Cumulative Plus Project Conditions

#	Roadway	Segment Description	Predicted DNL (dB)			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			E	C+P	Increase				
1	Grant Ave	West of Railroad Ave	60.5	61.5	1.0	>3.0	No	**Yes**	No
2	Grant Ave	Railroad Ave to Dutton St	58.8	59.6	0.8	>3.0	No	**Yes**	No
3	Grant Ave	Dutton St to Walnut Ln	55.5	56.7	1.2	>3.0	No	**Yes**	No
4	Grant Ave	Walnut Ln to Morgan St	58.7	59.9	1.2	>3.0	No	**Yes**	No
5	Grant Ave	Morgan St to Project Street A	56.4	57.6	1.3	>3.0	No	**Yes**	No
6	Grant Ave	Project Street A to Farmstead Drwy W	56.4	57.4	1.0	>3.0	No	**Yes**	No
7	Grant Ave	Farmstead Drwy W to E Main St	56.4	57.4	1.0	>3.0	No	**Yes**	No
8	Grant Ave	E Main St to Farmstead Drwy E	53.1	54.7	1.6	>3.0	No	**Yes**	No
9	Grant Ave	Farmstead Drwy E to Timbercrest Rd	58.8	60.5	1.6	>3.0	No	**Yes**	No
10	Grant Ave	Timbercrest Rd to County Rd 90	64.8	67.1	2.3	>3.0	No	**Yes**	No
11	Grant Ave	County Rd 90 to I-505 SB Ramps	52.7	55.1	2.5	>3.0	No	**Yes**	No
12	Grant Ave	I-505 SB Ramps to I-505 NB Ramps	48.8	51.0	2.2	>3.0	No	**Yes**	No
13	Grant Ave	East of I-505 NB Ramps	64.2	66.2	2.0	>3.0	No	**Yes**	No
14	Railroad Ave	North of Grant Ave	59.0	60.3	1.3	>3.0	No	**Yes**	No
15	Railroad Ave	South of Grant Ave	56.1	58.2	2.1	>3.0	No	**Yes**	No
16	Railroad Ave	North of Grant Ave	47.0	52.4	5.4	>3.0	**Yes**	**Yes**	**Yes**
17	Dutton St	North of Grant Ave	49.0	51.4	2.4	>3.0	No	**Yes**	No
18	Walnut Ln	South of Grant Ave	37.3	41.5	4.2	>3.0	**Yes**	**Yes**	**Yes**
19	Walnut Ln	North of Grant Ave	--	--	--	--	--	--	--
20	Morgan St	South of Grant Ave	51.5	53.7	2.3	>3.0	No	**Yes**	No
21	Morgan St	South of Grant Ave	50.3	56.4	6.1	>3.0	**Yes**	**Yes**	**Yes**
22	E Main St	North of Grant Ave	25.1	51.1	26.0	>3.0	**Yes**	**Yes**	**Yes**
23	PG&E Way	South of Grant Ave	33.2	47.2	14.0	>3.0	**Yes**	**Yes**	**Yes**
24	County Rd 90	North of Grant Ave	47.8	49.7	1.9	>3.0	No	**Yes**	No
25	County Rd 90	South of Grant Ave	--	--	--	--	--	--	--
26	I-505 SB Ramps	South of Grant Ave	45.1	48.0	2.9	>3.0	No	**Yes**	No
27	I-505 NB Ramps	North of Grant Ave	45.5	48.0	2.4	>3.0	No	**Yes**	No

[1] Significance threshold contained in City of Winters General Plan Policy 7.E.6 (greater than 3 dB).
[2] Sensitive receptors identified as outdoor activity areas (backyards) of existing residential uses.
[3] A significant impact is identified only along segments where project-related traffic noise level increases would exceed threshold AND where sensitive receptors are present.

Source: FHWA-RD-77-108 with inputs from Fehr & Peers

Table 10
Predicted Traffic Noise Level Increases at Existing Noise-Sensitive Receptors – Cumulative vs. Cumulative Plus Project Conditions

#	Roadway	Segment Description	Predicted DNL (dB) C	Predicted DNL (dB) C+P	Predicted DNL (dB) Increase	Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
16	Railroad Ave	North of Grant Ave	52.4	52.4	0.0	>3.0	No	**Yes**	No
18	Walnut Ln	South of Grant Ave	41.3	41.5	0.2	>3.0	No	**Yes**	No
21	Morgan St	South of Grant Ave	56.1	56.4	0.3	>3.0	No	**Yes**	No
22	E Main St	North of Grant Ave	51.1	51.1	0.0	>3.0	No	**Yes**	No
23	PG&E Way	South of Grant Ave	47.2	47.2	0.0	>3.0	No	**Yes**	No

[1] Significance threshold contained in City of Winters General Plan Policy 7.E.6 (greater than 3 dB).
[2] Sensitive receptors identified as outdoor activity areas (backyards) of existing residential uses.
[3] A significant impact is identified only along segments where project-related traffic noise level increases would exceed threshold AND where sensitive receptors are present.

Source: FHWA-RD-77-108 with inputs from Fehr & Peers

As indicated in Table 9, project-generated traffic is calculated to exceed the applicable General Plan Policy 7.E.6 impact significance criterion of (greater than) 3 dB along five roadway segments containing noise-sensitive receptors (segments 16, 18, 21, 22 and 23). However, as shown in Table 10, the project-generated increases along those roadway segments are not calculated to have a cumulatively considerable contribution to the cumulative impact relative to the General Plan criterion.

Based on the analysis and results presented above, off-site traffic noise level impacts related to increases in traffic resulting from the implementation of the project are identified as being ***less than significant***.

Noise Impacts from Proposed Subdivision Components at Existing Sensitive Uses

According to the provided project description and site plans, the development area will contain new residential (various densities), commercial and park uses. However, the specific uses to be developed within those areas have yet to be determined. The locations of the proposed uses within the development area are shown in Figure 2.

Commercial Component Operations

The commercial components within the development area will consist of three (3) lots, identified as Lots B1, B2 and B3 in Figure 2. Primary noise sources associated with commercial uses typically consist of parking lot movements (i.e., cars arriving and departing, engines starting, car doors closing, etc.), commercial deliveries (i.e., vans, medium/heavy duty trucks), and mechanical equipment (i.e., rooftop heating, ventilating and air conditioning systems). For the purposes of this analysis, it is conservatively assumed that commercial operations within the development could occur during both daytime and nighttime hours.

Park Component Activities

The park components within the development area will consist of three (3) lots, identified as Lots D, E and F in Figure 2. Noise generated by parks vary depending on whether the parks are intended for passive or active use. Passive uses include picnic, sitting, and walking (trail) areas whereas active uses include playing fields/courts and play structures. Based on the proposed lot sizes shown in the provided site plans, it appears as though Lots D and E could have active park activities. However, it is expected that Lot F, a linear park consisting of a trail and drainage channel, will likely have passive park usage. Primary noise sources associated with park uses are active activities, typically consisting of children playing on play structures, and participants and spectators at outdoor sport playing fields/courts. For the purposes of this analysis, it is reasonable to assume that park activities within the development would likely be restricted to daytime hours (7:00 a.m. to 10:00 p.m.).

Applicable Noise Level Criteria to Component Activities

As noted in the Regulatory Setting section of this report, the City of Winters General Plan establishes exterior and interior noise level limits for residential uses affected by non-transportation noise sources, which are contained in Tables 5 and 6. As footnoted in those tables,

each limit is the noise level which is not to be exceeded continuously during any five-minute period of any hour. The corresponding noise level descriptor would be the L_8 descriptor. In addition, the General Plan allows for corrections to the noise limits contained in Tables 5 and 6, which are contained in Table 7.

The following analyses of project commercial and park component activity noise level exposure at existing noise-sensitive uses (residential) include consideration of the noise level criteria contained in Tables 5-7. The closest existing residential uses to the proposed development are shown in Figure 1 (i.e., north, south, east and west of the project area).

In terms of determining the temporary noise increase due to project commercial and park component activities at existing residential uses in the vicinity, an impact would occur if those activities would noticeably increase ambient noise levels above background levels at those locations. The threshold of perception of the human ear is approximately 3 to 5 dB – a 5 dB change is considered to be clearly noticeable. For the analysis of project commercial and park component activity noise level increases at existing residential uses, a noticeable increase in ambient noise levels is assumed to occur where those activities would result in an increase by 5 dB or more over existing ambient noise levels.

Finally, although the project illustrative map contains the general locations of the planned commercial and park lots within the development (Figure 2), detailed plans illustrating locations of specific uses and associated site-specific designs within those components have not yet been developed. It is expected that detailed development plans for all land use components within the Farmstead development area will be reviewed at a future date as part of the City's project approval process. As a result, the following sections provide generalized analyses of commercial and park use activity noise exposure at existing noise-sensitive uses.

Impact 3: Commercial Parking Noise at Existing Sensitive Uses

As a means of determining potential noise exposure due to commercial component parking lot activities, Bollard Acoustical Consultants, Inc. (BAC) utilized specific parking lot noise level measurements conducted by BAC. Specifically, a series of individual noise measurements were conducted of multiple vehicle types arriving and departing a parking area, including engines starting and stopping, car doors opening and closing, and persons conversing as they entered and exited the vehicles. The results of those measurements revealed that individual parking lot movements generated mean noise levels of 65 dB SEL at a reference distance of 50 feet.

For a conservative assessment of commercial component parking area noise generation, it was assumed that individual parking areas (of which there could be more) within each commercial lot could accommodate up to 200 vehicles. This estimate of vehicle capacity was based on review of the commercial lot sizes shown in the illustrative site plan shown in Figure 2. It was also assumed that a parking area could fill or empty during any given peak hour of business operations. However, during hours of operation, it is likely that parking area activity would be more spread out. Hourly parking area noise exposure was determined using the following equation:

$$Peak\ Hour\ L_{eq} = 65+10*\log (N) – 35.6$$

Where 65 is the SEL for a single automobile parking operation at a reference distance of 50 feet, N is the number of parking area operations in a peak hour, and 35.6 is 10 times the logarithm of the number of seconds in an hour. Using BAC parking lot noise measurement data above, peak hour noise exposure from a commercial parking lot having 200 vehicle stalls computes to approximately 52 dB L_{eq} at a distance of 50 feet from the effective noise center of the area. BAC file data indicate that measured L_8 parking activity noise levels are approximately 3 dB higher than measured average (L_{eq}) noise levels. Given this information, the resulting noise exposure from a commercial parking lot having 200 vehicle stalls computes to approximately 55 dB L_8 at a distance of 50 feet from the effective noise center of the area.

Using the information provided above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), worst-case project commercial component parking area noise exposure at the property lines of the nearest existing noise-sensitive uses (residential) was calculated and the results of those calculations relative to the applicable City of Winters General Plan noise level standards are summarized in Table 11.

Table 11
Predicted Commercial Component Parking Area Noise at Existing Noise-Sensitive Uses

Nearest Noise-Sensitive Use[1]	Nearest Commercial Component[1]	Distance (ft)[2]	Predicted Noise Level, L_8 (dB)[3]	City Exterior Noise Standard, L_8 (dB)	
				Daytime	Nighttime
North – Residential	B1, B2	1,500	26	50	45
East – Residential	B3	1,000	34		
South – Residential	B2, B3	500	35		
West – Residential	B1, B2	600	34		

[1] Locations of existing nearby residential uses and commercial components are shown in Figures 1 and 2.
[2] Distances scaled from nearest commercial components to residential property lines.
[3] Predicted combined noise level exposure (L8).

Source: BAC 2024

As indicated in Table 11, noise level exposure from parking area activities within the commercial components of the development are predicted to satisfy the applicable City of Winters General Plan daytime and nighttime exterior noise level standards at the closest existing noise-sensitive uses (residential).

Standard residential construction (e.g., stucco siding, STC-27 windows, door weather-stripping, exterior wall insulation, composition plywood roof), typically results in an exterior to interior noise reduction of approximately 25 dB with windows closed and approximately 15 dB with windows open. Given the predicted exterior noise levels provided in Table 11, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), project commercial parking area noise levels are expected to comply with the General Plan daytime and nighttime interior noise level standards of 45 and 35 dB within the nearest existing residences.

Table 1 of this report contains the results from the BAC long-term ambient noise surveys at sites 1-4, which are believed to be representative of the existing ambient noise environments at nearby existing residential uses to the north, south, east and west of the project. Using the lowest average measured daytime and nighttime noise levels at each monitoring location during the surveys, ambient plus project parking area noise level increases were calculated at the closest existing residential uses. According to the results from that exercise, project-generated increases in ambient daytime noise levels are calculated to range from less than 0.1 dB L_8 to 0.2 dB L_8 at the closest existing residential uses to the project. Additionally, project-generated increases in ambient nighttime noise levels are calculated to range from less than 0.1 dB L_8 to 0.1 dB L_8 at those locations. The calculated increases above would be well below the applied increase significance criterion of 5 dB.

Based on the analysis and results presented above, it is expected that project commercial component parking lot noise levels will satisfy the City of Winters daytime and nighttime exterior and interior noise level limits at the nearest existing noise-sensitive uses (residential). It is further expected that project commercial parking activities would not result in a significant increase in ambient noise levels at those existing sensitive receptors. As a result, this impact is identified as being ***less than significant***.

Impact 4: Commercial Delivery Truck Noise at Existing Sensitive Uses

It is expected that portions of the businesses proposed within the commercial components of the development will receive deliveries of product from heavy and/or medium-duty trucks. It is further expected that those uses will typically generate light semi-trailer truck activity once initial store stocking has been completed. BAC file data for uses such as those commonly associated with commercial components can have up to three (3) regular weekly heavy truck deliveries of product to the businesses. These deliveries would occur on different days and times throughout the week. Depending on the design of the use, truck unloading could occur at loading dock areas or in front of the building. In addition to occasional heavy truck deliveries, medium-duty vendor trucks and side-step vans could also deliver products to the other commercial businesses within the lots, which would typically occur at the storefronts.

For the purposes of this analysis, it was assumed that 1 heavy truck and 3 medium duty truck deliveries could occur within a commercial component lot during a busy hour. Truck deliveries are expected to be relatively brief in duration. BAC file data indicate that heavy truck deliveries produce an average Sound Exposure Level (SEL) of approximately 85 dB at a distance of 100 feet, with medium duty trucks (including sidestep vans), producing a SEL of approximately 76 dB. Based on these levels, and 1 semi-trailer delivery and 3 medium duty truck deliveries during any given hour, the resulting noise levels are calculated to be 51 dB L_{eq} and 74 dB L_{max} at a distance of 100 feet. The L_8 noise level associated with those combined deliveries is calculated to be approximately 3 dB higher than the calculated average L_{eq} noise level.

Based on the operations assumptions and associated calculated reference noise levels above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project commercial component delivery truck activity noise exposure was calculated at the property lines of the nearest existing noise-sensitive uses (residential). The results of those calculations relative to the applicable City of Winters General Plan noise level standards are summarized in Table 12.

Table 12
Predicted Commercial Component Delivery Truck Noise at Existing Noise-Sensitive Uses

Nearest Noise-Sensitive Use[1]	Nearest Commercial Component[1]	Distance (ft)[2]	Predicted Noise Level, L_8 (dB)[3]	City Exterior Noise Standard, L_8 (dB)	
				Daytime	Nighttime
North – Residential	B1, B2	1,500	33	50	45
East – Residential	B3	1,000	37		
South – Residential	B2, B3	500	43		
West – Residential	B1, B2	600	41		

[1] Locations of existing nearby residential uses and commercial components are shown in Figures 1 and 2.
[2] Distances scaled from nearest commercial components to residential property lines.
[3] Predicted combined noise level exposure (L8).

Source: BAC 2024

Table 12 data indicate that noise level exposure from delivery truck activities within the commercial components of the development are predicted to satisfy the applicable City of Winters General Plan daytime and nighttime exterior noise level standards at the closest existing noise-sensitive uses (residential). Additionally, given the predicted exterior noise levels provided in Table 12, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), project commercial delivery truck activity noise levels are expected to comply with the General Plan daytime and nighttime interior noise level standards of 45 and 35 dB within the nearest existing residences.

Using the lowest average measured daytime and nighttime noise levels at each monitoring location during the surveys, ambient plus project delivery truck activity noise level increases were calculated at the closest existing residential uses. According to the results from that exercise, project-generated increases in ambient daytime noise levels are calculated to range from less than 0.1 dB L_8 to 1.0 dB L_8 at the closest existing residential uses to the project. Additionally, project-generated increases in ambient nighttime noise levels are calculated to range from less than 0.1 dB L_8 to 0.7 dB L_8 at those locations. The calculated increases above would be well below the applied increase significance criterion of 5 dB.

Based on the analysis and results presented above, it is expected that project commercial component delivery truck activity noise levels will satisfy the City of Winters daytime and nighttime exterior and interior noise level limits at the nearest existing noise-sensitive uses (residential). It is further expected that project commercial delivery truck would not result in a significant increase in ambient noise levels at those existing sensitive receptors. As a result, this impact is identified as being ***less than significant***.

Impact 5: Commercial HVAC Equipment Noise at Existing Sensitive Uses

The HVAC systems within future buildings of commercial lots will likely consist of packaged rooftop air conditioning systems. Such rooftop-mounted HVAC units, which typically stand about 4-5 feet tall, would be shielded from view of nearby sensitive uses by the building parapets. It is

the experience of BAC that such rooftop HVAC units frequently generate a noise level of approximately 45 dB L_{eq} at a reference distance of 100 feet from the building facade, including shielding by the building parapet (estimated to provide approximately 10 dB of noise level reduction). The associated L_8 noise level from HVAC equipment operations, a steady-state noise source, would be equivalent to the average L_{eq} noise level.

Based on the information above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project commercial component HVAC equipment noise exposure was calculated at the property lines of the nearest existing noise-sensitive uses (residential). The results of those calculations relative to the applicable City of Winters General Plan noise level standards are summarized in Table 13.

Table 13
Predicted Commercial Component HVAC Equipment Noise at Existing Noise-Sensitive Uses

Nearest Noise-Sensitive Use[1]	Nearest Commercial Component[1]	Distance (ft)[2]	Predicted Noise Level, L_8 (dB)[3]	City Exterior Noise Standard, L_8 (dB)	
				Daytime	Nighttime
North – Residential	B1, B2	1,500	24	**50**	**45**
East – Residential	B3	1,000	25		
South – Residential	B2, B3	500	34		
West – Residential	B1, B2	600	32		

[1] Locations of existing nearby residential uses and commercial components are shown in Figures 1 and 2.
[2] Distances scaled from nearest commercial components to residential property lines.
[3] Predicted combined noise level exposure (L8).

Source: BAC 2024

As shown in Table 13, noise level exposure from commercial building HVAC equipment is predicted to satisfy the applicable City of Winters General Plan daytime and nighttime exterior noise level standards at the closest existing noise-sensitive uses (residential). In addition, given the predicted exterior noise levels provided in Table 13, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), project commercial HVAC equipment noise levels are expected to comply with the General Plan daytime and nighttime interior noise level standards of 45 and 35 dB within the nearest existing residences.

Using the lowest average measured daytime and nighttime noise levels at each monitoring location during the surveys, ambient plus project commercial HVAC equipment noise level increases were calculated at the closest existing residential uses. According to the results from that exercise, project-generated increases in ambient daytime and nighttime noise levels are calculated to range from less than 0.1 dB L_8 to 0.1 dB L_8 at the closest existing residential uses to the project. The calculated increases above would be well below the applied increase significance criterion of 5 dB.

Based on the analysis and results presented above, it is expected that project commercial component HVAC equipment noise levels will satisfy the City of Winters daytime and nighttime

exterior and interior noise level limits at the nearest existing noise-sensitive uses (residential). It is further expected that project commercial HVAC equipment would not result in a significant increase in ambient noise levels at those existing sensitive receptors. As a result, this impact is identified as being ***less than significant***.

Impact 6: Park Activity Noise at Existing Sensitive Uses

As mentioned previously, noise generated by parks vary depending on whether the parks are intended for passive or active use. Passive uses include picnic, sitting, and walking trail areas whereas active uses include playing fields/courts and play structures. Although the development site plans contain the general locations of the planned park components (Figure 2), detailed plans containing park activities (i.e., active or passive use) have not yet been developed.

Based on a review of the provided site plans, it appears as though Lots D and E could contain active park activities. However, it is expected that Lot F, a linear park consisting of a trail and drainage channel, will likely have passive park usage. Primary noise sources associated with park uses are active activities, typically consisting of children playing on play structures, and participants and spectators at outdoor sport playing fields/courts. According to BAC file data, parks consisting of active uses (playing fields/playgrounds) have noise levels of approximately 60 dB L_{eq} and 70 dB L_{max} at a distance of 50 feet. The L_8 noise level associated with those activities would be approximately 3 dB higher than the measured average L_{eq} noise level.

Because activities within park components of the development would likely consist of human speech (i.e., shouting and cheering during activities), noise associated with park activities would be subject to the City of Winters General Plan correction/adjustment to noise of 5 dB contained in Table 7 of this report (criteria contains a 5 dB penalty for noise consisting primarily of speech). As mentioned previously, it is reasonable to assume that park hours within the development would be restricted to daytime hours (7:00 a.m. to 10:00 p.m.). Assuming standard spherical spreading loss (-6 dB per doubling of distance), project park component activity noise exposure was calculated at the property lines of the nearest existing noise-sensitive uses (residential) and the results of those calculations relative to the applicable City of Winters General Plan noise level standards are summarized in Table 14.

Table 14
Predicted Park Component Activity Noise at Existing Noise-Sensitive Uses

Nearest Noise-Sensitive Use[1]	Distance (ft)[2]	Predicted Noise Level, L_8 (dB)[3]		City Daytime Exterior Noise Standard, L_8 (dB)
		No Adjustment	With Adjustment	
North – Residential	1,300	35	40	50
East – Residential	500	43	48	
South – Residential	1,000	37	42	
West – Residential	1,000	37	42	

[1] Existing residential uses are shown in Figure 1.
[2] Distances scaled from nearest park components to residential property lines.
[3] Predicted noise level exposure (L8) from nearest park lot assumed to contain active activity usage (Lots D & E).

Source: BAC 2024

Table 14 data indicate that noise level exposure from active activity park usage within the development is predicted to satisfy the applicable City of Winters General Plan daytime exterior noise level standards at the closest existing noise-sensitive uses (residential). Additionally, given the predicted exterior noise levels provided in Table 14, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), project park activity noise levels are expected to comply with the General Plan daytime interior noise level standard of 45 dB within the nearest existing residences.

Using the lowest average measured daytime noise levels at each monitoring location during the surveys, ambient plus project park activity noise level increases were calculated at the closest existing residential uses. According to the results from that exercise, project-generated increases in ambient daytime noise levels are calculated to range from less than 0.1 dB L_8 to 1.2 dB L_8 at the closest existing residential uses to the project. The calculated increases above would be well below the applied increase significance criterion of 5 dB.

Based on the analysis and results presented above, it is expected that project park activity noise levels will satisfy the City of Winters daytime exterior and interior noise level limits at the nearest existing noise-sensitive uses (residential). It is further expected that project park activities would not result in a significant increase in ambient noise levels at those existing sensitive receptors. As a result, this impact is identified as being ***less than significant***.

Impact 7: Cumulative (Combined) Noise at Existing Sensitive Uses

The calculated cumulative (combined) noise levels from analyzed project commercial and park component activities at the closest existing noise-sensitive uses (residential) are presented in Tables 15 and 16. It should be noted that due to the logarithmic nature of the decibel scale, the sum of two noise values which differ by 10 dB equates to an overall increase in noise levels of 0.4 dB. When the noise sources are equivalent, the sum would result in an overall increase in noise levels of 3 dB.

Table 15
Calculated Cumulative Project Noise Levels vs. City Daytime Exterior Noise Standard

	Predicted Noise Level, L_8 (dB)[1]					
Nearest Noise-Sensitive Use[1]	**Commercial Parking**	**Commercial Delivery Truck**	**Commercial HVAC**	**Park Activity**	**Calculated Combined, L_8**	**City Daytime Exterior Noise Standard, L_8 (dB)**
North – Residential	26	33	24	40	41	**50**
East – Residential	34	37	25	48	49	
South – Residential	35	43	34	42	46	
West – Residential	34	41	32	42	45	

[1] Predicted noise levels from Tables 11-14.

Source: BAC 2024

Table 16
Calculated Cumulative Project Noise Levels vs. City Nighttime Exterior Noise Standard

Nearest Noise-Sensitive Use[1]	Predicted Noise Level, L_8 (dB)[1]				Calculated Combined, L_8	City Nighttime Exterior Noise Standard, L_8 (dB)
	Commercial Parking	Commercial Delivery Truck	Commercial HVAC	Park Activity[2]		
North – Residential	26	33	24	--	34	45
East – Residential	34	37	25	--	39	
South – Residential	35	43	34	--	44	
West – Residential	34	41	32	--	42	

[1] Predicted noise levels from Tables 11-14.
[2] Park activity reasonably assumed to occur during daytime hours only (7:00 a.m. to 10:00 p.m.).

Source: BAC 2024

As indicated in Tables 15 and 16, cumulative noise level exposure from analyzed project commercial and park activities is predicted to satisfy the applicable City of Winters General Plan daytime and nighttime exterior noise level criteria at the closest existing noise-sensitive uses (residential). In addition, given the predicted exterior noise levels provided in Tables 15 and 16, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), cumulative project noise levels are expected to comply with the General Plan daytime and nighttime interior noise level standards of 45 and 35 dB within the nearest existing residences.

Using the lowest average measured daytime and nighttime noise levels at each monitoring location during the surveys, ambient plus cumulative project noise level increases were calculated at the closest existing residential uses. According to the results from that exercise, cumulative project-generated increases in ambient daytime noise levels are calculated to range from less than 0.1 dB L_8 to 2.2 dB L_8 at the closest existing residential uses to the project. Additionally, cumulative project-generated increases in ambient nighttime noise levels are calculated to range from less than 0.1 dB L_8 to 0.9 dB L_8 at those locations. The calculated cumulative increases above would be well below the applied increase significance criterion of 5 dB.

Based on the analysis and results presented above, it is expected that cumulative (combined) project noise levels will satisfy the City of Winters daytime and nighttime exterior and interior noise level limits at the nearest existing noise-sensitive uses (residential). It is further expected that combined project activities would not result in a significant increase in ambient noise levels at those existing sensitive receptors. As a result, this impact is identified as being ***less than significant***.

Noise Impacts Associated with On-Site Construction Activities

Impact 8: On-Site Project Construction Noise at Existing sensitive Uses

During project construction, heavy equipment would be used for grading excavation, paving, and structure construction, which would increase ambient noise levels when in use. Noise levels would

vary depending on the type of equipment used, how it is operated, and how well it is maintained. Noise exposure at any single point outside the project work area would also vary depending upon the proximity of equipment activities to that point.

Table 17 includes the range of maximum (L_{max}) noise levels for equipment commonly used in general residential construction projects at full-power operation at a distance of 50 feet. It should be noted that not all of these construction activities would be required of this project. The Table 17 data also include predicted maximum equipment noise levels at the nearest existing residential uses, which assume a standard spherical spreading loss of 6 dB per doubling of distance.

Table 17
Reference and Projected Noise Levels for Typical Residential Construction Equipment

Equipment Description	Reference Maximum Noise Level at 50 Feet (dB)	Projected Maximum Noise Level at Receiver, L_{max} (dB)			
		Res-North 100 ft	Res-East 100 ft	Res-South 400 ft	Res-West 70 ft
Air compressor	80	76	74	62	77
Backhoe	80	76	74	62	77
Ballast equalizer	82	78	76	64	79
Ballast tamper	83	79	77	65	80
Compactor	82	78	76	64	79
Concrete mixer	85	81	79	67	82
Concrete pump	82	78	76	64	79
Concrete vibrator	76	72	70	58	73
Crane, mobile	83	79	77	65	80
Dozer	85	81	79	67	82
Excavator	85	81	79	67	82
Generator	82	78	76	64	79
Grader	85	81	79	67	82
Impact wrench	85	81	79	67	82
Loader	80	76	74	62	77
Paver	85	81	79	67	82
Pneumatic tool	85	81	79	67	82
Pump	77	73	71	59	74
Saw	76	72	70	58	73
Scarifier	83	79	77	65	80
Scraper	85	81	79	67	82
Shovel	82	78	76	64	79
Spike driver	77	73	71	59	74
Tie cutter	84	80	78	66	81
Tie handler	80	76	74	62	77
Tie inserter	85	81	79	67	82
Truck	84	80	78	66	81
	Low	72	70	58	73
	High	81	79	67	82
	Average	79	76	64	79

Source: 2018 FTA Transit Noise and Vibration Impact Assessment Manual, Table 7-1 and BAC calculations

The City of Winters General Plan or Municipal Code does not contain numeric thresholds that would be specifically applicable to project construction noise. However, Section 8.20.070.B.4 of the City of Winters Municipal Code prohibits construction/demolition activities from occurring between weekday and Saturday hours of 7:00 p.m. to 7:00 a.m. or at any time on Sundays or

holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial property line. It is reasonably assumed for the purpose of this analysis that all on-site noise-generating project construction equipment and activities would occur pursuant to County Code Section 8.20.070.B.4.

In terms of determining the temporary noise increase due to project-related construction activities, an impact would occur if construction activity would noticeably increase ambient noise levels above background levels. The threshold of perception of the human ear is approximately 3 to 5 dB – a 5 dB change is considered to be clearly noticeable. For this analysis, a noticeable increase in ambient noise levels is assumed to occur where noise levels increase by 5 dB or more over existing ambient noise levels.

Appendices C & D contain the results from the BAC long-term ambient noise surveys, which are believed to be representative of the existing ambient noise environments at nearby existing residential uses to the north, south, east and west of the project. As indicated in Appendices C and D, the highest measured daytime maximum noise levels at BAC site 1 ranged from 75 to 77 dB L_{max} (mean of 76 dB L_{max}). The data in Appendices C and D also indicate that the highest measured daytime maximum noise levels at BAC site 2 ranged from 81 to 84 dB L_{max} (mean of 83 dB L_{max}). The highest measured daytime maximum noise levels at BAC site 3 ranged from 97 to 99 dB L_{max} (mean of 98 dB L_{max}). Finally, the highest measured daytime maximum noise levels at BAC site 4 ranged from 82 to 83 dB L_{max} (mean of 83 dB L_{max}).

Using the calculated means of measured daytime maximum noise levels at BAC sites 1-4 stated above, and the calculated average of predicted construction equipment maximum noise levels shown in Table 17, ambient plus project construction noise level increases were calculated at the closest existing residential uses. The results of those calculations indicate that increases in ambient maximum noise levels from project construction activities would range from less than 0.1 to 4.7 dB L_{max} at the closest residential uses. The calculated range of ambient daytime maximum noise level increases are below the applied increase significance criterion of 5 dB.

Based on the analysis and results provided above, this impact is identified as being ***less than significant***. Nonetheless, to the reduce the potential for annoyance at nearby noise-sensitive uses, the following measures should be incorporated into project on-site construction operations:

- All noise-generating on-site project construction activities shall occur pursuant to Section 8.20.070.B.4 of the City of Winters Municipal Code.
- All noise-generating on-site project construction activities shall be limited to the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, unless the project applicant obtains a variance from the city.
- All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.

- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive uses.
- Work area speed limits shall be established and enforced during the construction period.
- Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.

Vibration Impacts Associated with On-Site Project Construction Activities

Impact 9: On-Site Project Construction Vibration at Sensitive Uses

During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of the construction. Table 18 includes the range of vibration levels for equipment commonly used in residential construction projects at a distance of 25 feet.

Table 18
Reference Vibration Source Amplitudes for Typical Construction Equipment

Equipment	Reference PPV at 25 Feet (in/sec)[1]
Vibratory Roller	0.210
Large bulldozer	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

[1] PPV = Peak Particle Velocity

Source: 2018 FTA Transit Noise and Vibration Impact Assessment Manual, Table 7-4

Section 8.20.070.B.5 of the City of Winters Municipal Code prohibits the operation of any device that creates a vibration which is above the vibration perception of an individual at or beyond the real property boundary of the source if on private property. According to the 2020 Caltrans Transportation and Construction Vibration Guidance Manual, the threshold of human perception to vibration is established as 0.1 inches per second (in/sec) PPV.

With the exception of the vibratory roller, vibration generated by each of the equipment types in Table 18 are below 0.1 in/sec PPV at a distance of 25 feet. When projected to the nearest existing residential structure located approximately 50 feet away, construction equipment vibration levels are calculated to be 0.07 in/sec PPV or below. Based on the analysis provide above, on-site construction within the project area is not expected to result in excessive groundborne vibration levels at nearby existing structures, nor result in an exceedance of Section 8.20.070.B.5 vibration criteria.

Results from the ambient vibration level monitoring within the project area (Table 2) indicate that measured vibration levels were well below the threshold of perception (0.1 in/sec PPV). Therefore, it is expected that the project would not result in the exposure of persons to excessive groundborne vibration levels at proposed uses of the project. Finally, the project consists of the

development of residential, commercial, and park uses. It is the experience of BAC these uses do not typically have equipment that generates appreciable vibration.

Because vibration levels due to and upon the proposed project are not expected to result in excessive groundborne vibration levels at sensitive uses, nor result in an exceedance of applicable City of Winters vibration criteria, this impact is identified as being ***less than significant***.

Noise Impacts Upon the Development

The California Supreme Court issued an opinion in *California Building Industry Association v. Bay Area Air Quality Management District (2015)* holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents. Nevertheless, the City of Winters has policies that address existing/future conditions affecting the proposed project, which are discussed in the following section. The following section includes assessments of future traffic, commercial operations, and park activity noise exposure at proposed residential uses within the project area and recommended improvement measures to ensure consistency with applicable City of Winters noise requirements.

Future Traffic Noise Levels at the Project Site

Issue 1: Future Exterior Traffic Noise at Proposed Sensitive Uses

The project proposes the development of residential uses of varying densities throughout the project area, including areas located adjacent to a major roadway (Grant Avenue). While the interior spaces of residential uses share the same noise-sensitivity regardless of density, the noise-sensitivity of exterior areas varies according to the type of proposed residential use. For example, for low-density residential uses, the noise-sensitive exterior spaces where exterior noise standards are applied are commonly considered to be backyards. For higher density residential developments, such as apartments or townhomes, exterior noise standards are typically applied at common outdoor usage areas such as pool or park spaces rather than individual patios or balconies.

Because specific plans for portions of the residential land use components were not available as of the time of this study, potential traffic noise impacts are assessed through prediction of distances to future traffic noise contours that would potentially affect development design. Where noise contours exceeding the normally acceptable General Plan standard shown in Table 4 of this report (60 dB DNL for residential uses) would extend into areas proposed for such residential uses, potentially significant noise impacts are identified and consideration of exterior noise mitigation measures would be necessary.

The FHWA Model was used with future plus project traffic data to predict distances to future traffic noise contours for Grant Avenue. Future traffic data (Cumulative Plus Project) in the form of AM and PM peak hour intersection turning movements were obtained from the project traffic impact analysis prepared by Fehr & Peers. Those data were converted to Average Daily Traffic (ADT) volumes by applying a factor of 5 to the sum of AM and PM peak hour conditions. Other inputs were obtained from BAC observations and noise measurement data. Table 19 shows the

predicted future traffic noise exposure along the segment of Grant Avenue located adjacent to the project area, a comparison of that predicted level against the applicable City of Winters General Plan 60 dB DNL exterior noise standard for residential uses, and the distances to the future 65 and 70 dB DNL traffic noise contours.

Table 19
Predicted Future Grant Avenue Traffic Noise Levels Adjacent to the Project Area

#	Roadway	Segment Description	Distance (ft)[1]	DNL (dB)[2]	Above 60 dB DNL?[3]	Distance to 60 dB DNL Contour (ft)[4]
5	Grant Ave	Morgan St to Project Street A	100	66	Yes	244
8	Grant Ave	E Main St to Farmstead Drwy E	100	66	Yes	267
9	Grant Ave	Farmstead Drwy E to Timbercrest Rd	100	66	Yes	268

[1] Distance from roadway centerline to nearest potential location for residential outdoor activity area.
[2] Day-Night Average noise level (DNL) computed at distance cited in table.
[3] If the predicted DNL at nearest potential outdoor activity area exceeds city's 60 dB DNL exterior noise level standard, this column is flagged as "Yes".
[4] Contour distances represent distance from roadway centerline to indicated contour.

Source: FHWA-RD-77-108, Fehr & Peers and BAC calculations

As indicated in Table 19, predicted future traffic noise level exposure could exceed 60 dBA DNL at the nearest potential outdoor activity areas of proposed residential uses to Grant Avenue (Lot A – Townhomes and Lot H1 – High Density Residential). Table 19 also indicates that, a traffic noise attenuation of 6 dB would be required to reduce future traffic noise levels to a state of compliance with the General Plan 60 dBA DNL exterior noise standard at the nearest residential components of the development. This degree of attenuation could be achieved through a variety of noise mitigation options. Such options are discussed below under the mitigation measures for this impact statement.

Although the project site plans contain the general locations of the proposed residential uses, the specific locations of the individual residences and outdoor activity areas are currently unknown. However, residential outdoor activity areas could be located in areas where future Grant Avenue traffic noise exposure is predicted to exceed the General Plan 60 dBA DNL exterior noise level standard.

To satisfy the City of Winters General Plan normally acceptable 60 dB DNL exterior noise level standard at the outdoor activity areas of future residential uses proposed within the development, the following measures should be considered either singularly or in combination during project design, depending on the level of sound attenuation required:

1. Residential outdoor activity areas shall be located beyond the Grant Avenue 60 dBA DNL noise contour distances shown in Table 19. This includes individual backyards (if applicable) of townhome residences (Lot A) and common outdoor use areas of high-density residences (Lot H1).

   OR

2. Residential outdoor activity areas proposed within the 60 dBA DNL noise contour distances shown in Table 19 shall be screened from view of the roadway by intervening structures or sound barriers. If sound barriers are proposed, project-specific grading plans shall be reviewed to determine the location and heights of barrier necessary to achieve compliance with the General Plan 60 dB exterior noise standard.

   If traffic noise barriers are to be constructed, the barriers shall take the form of a masonry wall, earthen berm, or combination of the two, or, if reviewed and approved by an acoustical consultant as providing comparable performance prior to construction, other materials may be acceptable (i.e., wood or wood composite fence with overlapping slat construction).

   OR

3. Proposed townhome residences (Lot A) shall be oriented such that the front of the residence faces the Grant Avenue where levels exceeding 60 dBA DNL would occur, thereby using the residence to shield the backyard from the roadway and creating a larger setback between the roadway centerline and backyard outdoor activity area.

Issue 2: Future Interior Traffic Noise within Proposed Residential Uses

Based upon years of experience and testing conducted by BAC, standard building construction (stucco siding, STC-27 windows, door weather-stripping, exterior wall insulation, composition plywood roof), typically results in an exterior to interior noise reduction of at least 25 dBA with windows closed and approximately 15 dB with windows open. Therefore, provided predicted future traffic noise exposure at residential building facades does not exceed 70 dBA DNL, standard construction would be adequate to reduce interior noise levels to a state of compliance with the City of Winters General Plan 45 dBA DNL interior noise level standard.

As indicated in Table 19, future traffic noise levels are not predicted to exceed 70 dBA DNL adjacent to Grant Avenue. However, at residential uses proposed nearest to Grant Avenue within Lot A (Townhomes) and Lot H1 (High Density Residential), it is possible that future traffic noise exposure could meet or exceed the General Plan 45 dBA DNL interior noise level standard without mitigation, particularly at upper-floor/elevated locations where ground-level sound absorption is reduced.

To satisfy the City of Winters General Plan 45 dB DNL interior noise level standard within future residential uses proposed within the development, the following measure is recommended:

1. Once available, design plans for residential building facades within Lot A (Townhomes) and Lot H1 (High Density Residential) shall be reviewed by a qualified acoustical consultant to ensure that appropriate construction upgrades (typically higher-rated STC values for windows) are specified to ensure compliance with the General Plan 45 dB DNL interior noise standard.

Development Commercial Component Noise Levels at Proposed Sensitive Uses

Issue 3: Commercial Parking Noise at Proposed Sensitive Uses

An analysis of commercial parking area noise exposure was presented in **Impact 3**. The results from that analysis indicate that noise exposure from an individual parking area having 200 vehicle stalls computes to approximately 55 dB L_8 at a distance of 50 feet from the effective noise center of the area.

Based on a review of the project illustrative plan (Figure 2), a portion of commercial lots would be located near residential lots. However, future configurations and sizes of commercial parking areas and related distances to residential uses are currently not known at this time. Thus, it is possible that commercial parking area noise exposure could exceed the General Plan's exterior and interior daytime and nighttime standards at nearby proposed residential uses.

To satisfy applicable City of Winters General Plan exterior and interior daytime and nighttime noise level standards at nearby proposed noise-sensitive uses, the following measure should be implemented:

1. A site-specific noise impact study that addresses commercial parking area activities shall be completed by a qualified noise consultant once site-specific development plans are completed. The noise impact study shall include an analysis of commercial parking noise exposure at the nearest proposed noise-sensitive uses (residential). The analysis shall include associated mitigation measures (as appropriate) to reduce parking area noise levels to a state of compliance with applicable City of Winters General Plan exterior and interior noise level limits at nearby proposed sensitive receptors. Such measures could include, but are not limited to, increasing setbacks between sensitive uses and parking areas, construction of noise barriers where appropriate, and incorporation of upgraded building construction.

Issue 4: Commercial Delivery Truck Noise at Proposed Sensitive Uses

An analysis of commercial delivery truck activity noise exposure was presented in **Impact 4**. The results from that analysis indicate that noise exposure from commercial delivery truck activities was calculated to be 54 dB L_8 at a distance of 100 feet from the unloading area. Based on a review of the project illustrative plan (Figure 2), a portion of commercial lots would be located adjacent to residential lots.

Using BAC file data, delivery truck activity noise levels are projected to be approximately 50 dB L_8 at a distance of 150 feet. Additionally, delivery truck activity noise levels are projected to be approximately 45 dB L_8 at a distance of 300 feet. The projected park activity noise levels at 150 and 300 feet would satisfy the General Plan daytime and nighttime exterior noise level standards of 50 and 45 dB L_8 (respectively) at those distances. Further, based on the projected exterior noise levels at those distances, and after consideration of the exterior to interior noise reduction provided by standard residential construction (approximately 25 dB with windows closed and approximately 15 dB with windows open), compliance with the General Plan daytime and nighttime interior noise level standards of 45 and 35 dB is also expected. However, based on a

review of the project illustrative site plan, specifically the proposed sizes of commercial lots and associated proximity to proposed residential uses, the needed 150 and 300-foot setbacks within those components does not appear to be feasible. Thus, it is possible that noise from truck delivery activities could exceed the General Plan's exterior and interior daytime and nighttime standards at nearby proposed residential uses.

To satisfy applicable City of Winters General Plan exterior and interior daytime and nighttime noise level standards at nearby proposed noise-sensitive uses, the following measure should be implemented:

1. A site-specific noise impact study that addresses commercial truck delivery activities shall be completed by a qualified noise consultant once site-specific development plans are completed. The noise impact study shall include an analysis of commercial delivery truck noise exposure at the nearest proposed noise-sensitive uses (residential). The analysis shall include associated mitigation measures (as appropriate) to reduce commercial truck delivery noise levels to a state of compliance with applicable City of Winters General Plan exterior and interior noise level limits at nearby proposed sensitive receptors. Specific mitigation measures could include but are not limited to shielding from features integrated into site design, and/or restrictions on hours for commercial deliveries.

Issue 5: Commercial HVAC Equipment Noise at Proposed Sensitive Uses

An analysis of commercial HVAC equipment noise exposure was presented in **Impact 5.** The results from that analysis indicate that noise exposure from commercial HVAC equipment was calculated to be 45 dB L_8 at a distance of 100 feet from the building facade.

Based on a review of the project illustrative plan (Figure 2), the nearest proposed sensitive uses (residential) would be located adjacent to commercial components. However, future locations of commercial buildings and related distances to residential uses are currently not known at this time. Further, should the future commercial uses involve food cold storage, additional mechanical equipment would be required of those uses. This equipment is typically located on the roof of the building, within a mechanical equipment room inside the building, or at ground-level outside the building. Thus, depending upon the location and equipment configuration, noise exposure from commercial HVAC equipment could exceed the General Plan's exterior and interior daytime and nighttime standards at nearby proposed residential uses.

To satisfy applicable City of Winters General Plan exterior and interior daytime and nighttime noise level standards at nearby proposed noise-sensitive uses, the following measures should be implemented:

1. Future commercial buildings *not having cold storage requirements* shall maintain a minimum setback of 100 feet from proposed residential boundaries within the development. When projected to a distance of 100 feet, commercial HVAC equipment noise level exposure is calculated to be 45 dB L_8, which would satisfy the General Plan's exterior nighttime noise level standard of 45 dB L_8 (and subsequently comply with the General Plan daytime exterior noise level limit of 50 dB L_8). After consideration of the exterior to interior noise reduction provided by standard residential construction

(approximately 25 dB with windows closed and approximately 15 dB with windows open), predicted HVAC equipment noise level exposure at a distance of 100 feet would also satisfy the General Plan's interior daytime and nighttime noise level standards of 45 dB and 35 dB $L_{8,}$ respectively.

2. Should future commercial buildings *not having cold storage requirements* be located within 100 feet from proposed residential boundaries within the development, a site-specific noise impact study that addresses commercial HVAC equipment shall be completed by a qualified noise consultant once site-specific development plans are completed. The noise impact study shall include an analysis of commercial HVAC equipment noise exposure at the nearest proposed residential uses of the development. The analysis shall include associated mitigation measures (as appropriate) to reduce commercial HVAC equipment noise levels to a state of compliance with applicable City of Winters General Plan exterior and interior noise level limits at nearby proposed residential uses. Such measures could include, but are not limited to, the use of building parapets to screen HVAC equipment from nearby sensitive uses, locating HVAC equipment within isolated mechanical equipment rooms, or relocating HVAC equipment as far as feasible from proposed noise-sensitive receptors.

3. Should commercial buildings *include mechanical equipment for the cold storage of food* which is not proposed within a mechanical equipment room which would contain the noise generated by that equipment (i.e., rooftop of commercial buildings or at unshielded exterior ground floor locations), a site-specific noise impact study that addresses commercial HVAC equipment shall be completed by a qualified noise consultant once site-specific development plans are completed. The noise impact study shall include an analysis of commercial HVAC equipment noise exposure at the nearest proposed residential uses of the development. The analysis shall include associated mitigation measures (as appropriate) to reduce commercial HVAC equipment noise levels to a state of compliance with applicable City of Winters General Plan exterior and interior noise level limits at nearby proposed residential uses. Such measures could include, but are not limited to, the use of building parapets to screen HVAC equipment from nearby sensitive uses, locating HVAC equipment within isolated mechanical equipment rooms, or relocating HVAC equipment as far as feasible from proposed noise-sensitive receptors.

Development Park Component Noise Levels at Proposed Sensitive Uses

Issue 6: Park Activity Noise at Proposed Sensitive Uses

An analysis of park activity noise exposure was presented in **Impact 6**. As indicated in that discussion, parks consisting of active uses (i.e., playing fields/playgrounds) have noise levels of approximately 63 dB L_8 at a distance of 50 feet from the area's focal point.

The nearest proposed sensitive uses (residential) would be located adjacent to park components that could potentially have active activity usage (i.e., Lots D and E). Using BAC file data, parks consisting of actives uses (i.e., playing fields/playgrounds) are projected to be approximately 50 dB L_8 at a distance of 400 feet – including the General Plan's correction/adjustment for sources consisting primarily of speech. The projected park activity noise level at 400 feet cited above

would satisfy the General Plan daytime exterior noise level standard of 50 dB L_8 at that distance, and, is also expected to comply with the General Plan daytime interior noise level criterion for residential uses. However, based on a review of the project illustrative site plan, specifically the proposed sizes of park components and associated proximity to proposed residential uses, a 400-foot setback from such active park activities within those lots does not appear to be feasible. Thus, it is possible that noise from park activities could exceed the General Plan's exterior and interior daytime standards at nearby proposed residential uses.

To satisfy applicable City of Winters General Plan exterior and interior daytime noise level standards at nearby proposed noise-sensitive uses, the following measure should be implemented:

1. Should future active uses (i.e., playing fields/playgrounds) be proposed within park components, a noise impact study that addresses those activities shall be completed by a qualified noise consultant once site-specific development plans are completed. The noise impact study shall include an analysis of park activity noise exposure at the nearest proposed noise-sensitive uses (residential). The analysis shall include associated mitigation measures (as appropriate) to reduce park noise levels to a state of compliance with applicable City of Winters General Plan exterior and interior noise level limits at nearby proposed sensitive receptors. Specific mitigation measures could include but are not limited to the construction of solid noise barriers, and a site design that integrates intervening shielding and setbacks.

Existing Commercial Operations Noise Levels at Proposed Sensitive Uses

Issue 7: Off-Site Existing Commercial Noise at Proposed Sensitive Uses

Existing commercial uses (supermarket and convenience store / fueling station) are located southwest of the proposed Farmstead development. Primary noise sources associated with such commercial use types typically include parking area movements, on-site truck delivery activities, and HVAC equipment. The existing commercial uses are shown in Figure 1.

BAC noise monitoring site 4 was specifically selected to be representative of the existing ambient noise level environment at the southwest end of the project property, located nearest to the existing commercial uses. In the analysis of the ambient data contained in Appendices C & D, it was revealed that measured hourly noise levels during daytime hours at site 4 ranged from 48 dB to 61 dB L_8 during the monitoring period. Additionally, measured hourly noise levels at site 4 ranged from 48 dB to 60 dB L_8 during nighttime hours.

As mentioned above, BAC noise monitoring site 4 was specifically selected to be representative of the existing ambient noise level environment at the southwest end of the project property, located nearest to the existing commercial uses. The noise level data collected at site 4 includes operations/activities associated with adjacent commercial operations, but also includes background noise from Grant Avenue – which was not possible to exclude in the data collected at the site. Based on the measured ambient noise level data at site 4, it is possible that noise from activities at nearby existing commercial uses could exceed the General Plan's exterior and interior

daytime and nighttime standards at noise-sensitive uses proposed in the immediate vicinity of those commercial uses (Lot A – Townhomes).

To satisfy applicable City of Winters General Plan exterior and interior daytime and nighttime noise level standards at proposed residential uses, the following measure should be implemented:

1. A noise impact study that addresses existing adjacent commercial operations noise generation shall be completed by a qualified noise consultant once site-specific development plans are completed for the nearest residential component of the development (Lot A – Townhomes). The noise impact study shall include an analysis of existing commercial noise exposure from existing commercial activities to the southwest of the development (i.e., supermarket and convenience store / fueling station) at the nearest proposed residential uses (Lot A – Townhomes). The analysis shall include associated mitigation measures (as appropriate) to reduce existing commercial noise levels to a state of compliance with applicable City of Winters General Plan exterior and interior noise level limits at nearby proposed residential uses. Specific mitigation measures could include but are not limited to the construction of solid noise barriers, and a site design that integrates intervening shielding and setbacks.

This concludes BAC's noise and vibration assessment of the Farmstead Mixed-Use Subdivision in Winters, California. Please contact BAC at (530) 537-2328 or info@bacnoise.com if you have any comments or questions regarding this report.

Appendix A
Acoustical Terminology

Acoustics The science of sound.

Ambient Noise The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.

Attenuation The reduction of an acoustic signal.

A-Weighting A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.

Decibel or dB Fundamental unit of sound. A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.

CNEL Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.

Frequency The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.

IIC Impact Insulation Class (IIC): A single-number representation of a floor/ceiling partition's impact generated noise insulation performance. The field-measured version of this number is the FIIC.

L_{dn} Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

L_{eq} Equivalent or energy-averaged sound level.

L_{max} The highest root-mean-square (RMS) sound level measured over a given period of time.

Loudness A subjective term for the sensation of the magnitude of sound.

Masking The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.

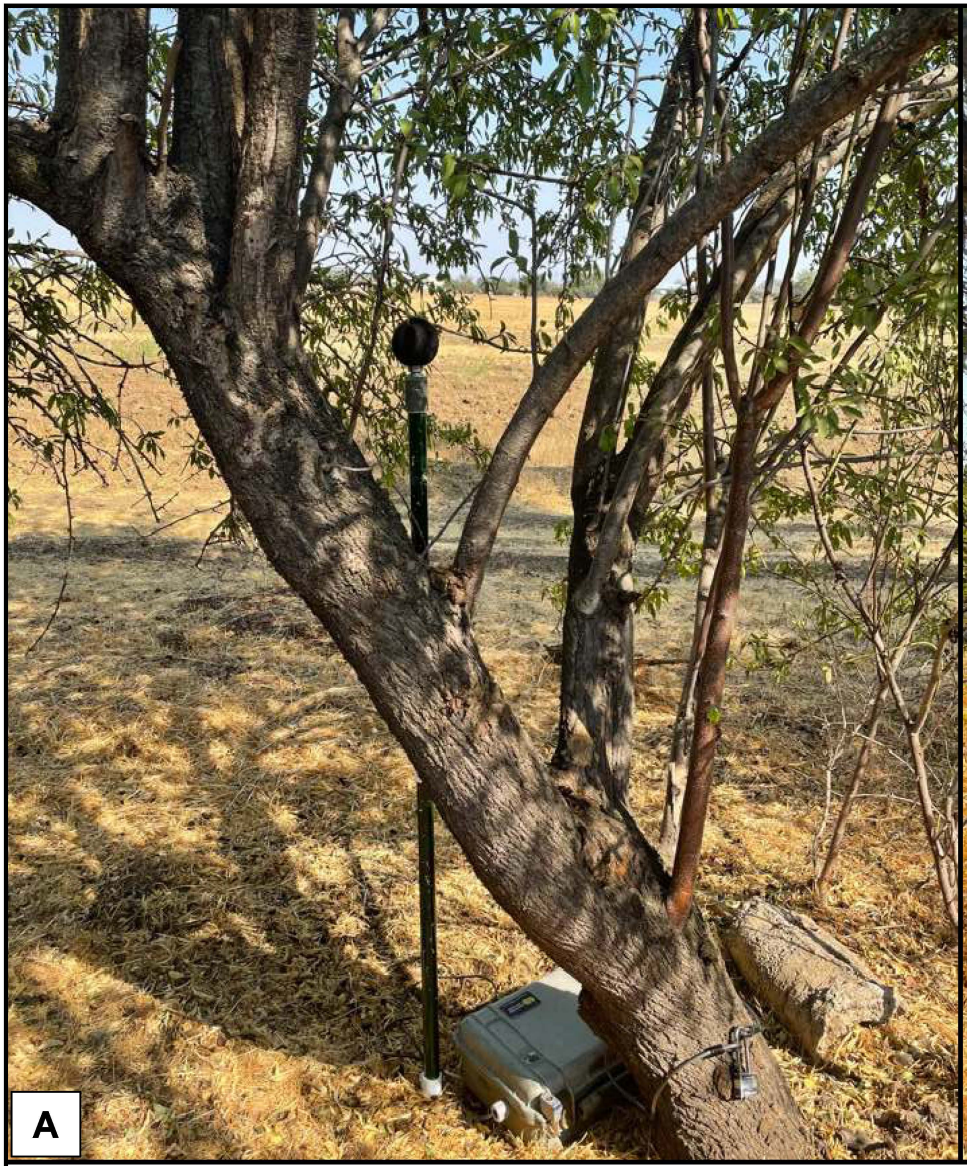
Noise Unwanted sound.

Peak Noise The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.

RT_{60} The time it takes reverberant sound to decay by 60 dB once the source has been removed.

STC Sound Transmission Class (STC): A single-number representation of a partition's noise insulation performance. This number is based on laboratory-measured, 16-band (1/3-octave) transmission loss (TL) data of the subject partition. The field-measured version of this number is the FSTC.







Legend

A: Site 1: Looking east towards project area
B: Site 2: Looking west along project property line

Farmstead Mixed-Use Subdivision
Winters, California

Field Survey Photographs

Appendix B-1

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Legend

A: Site 3: Looking east towards the intersection of Timber Creek Rd and E Grant Ave
B: Site 4: Looking north towards residences

Farmstead Mixed-Use Subdivision
Winters, California

Field Survey Photographs

Appendix B-2

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Appendix C-1
Long-Term Ambient Noise Monitoring Results - Site 1
Farmstead Mixed-Use Subdivision - Winters, California
Wednesday, September 22, 2021

Hour	Leq	Lmax	L8	L50
12:00 AM	38	53	42	37
1:00 AM	38	48	42	37
2:00 AM	47	67	41	35
3:00 AM	54	68	60	41
4:00 AM	49	66	52	48
5:00 AM	52	60	54	51
6:00 AM	52	61	54	52
7:00 AM	54	61	57	53
8:00 AM	50	71	52	49
9:00 AM	43	58	46	42
10:00 AM	41	62	43	40
11:00 AM	43	68	45	39
12:00 PM	41	55	43	40
1:00 PM	42	63	44	40
2:00 PM	42	70	42	40
3:00 PM	42	63	44	41
4:00 PM	44	66	45	42
5:00 PM	47	69	48	42
6:00 PM	45	70	46	42
7:00 PM	47	69	48	42
8:00 PM	48	77	50	45
9:00 PM	48	59	50	47
10:00 PM	46	56	49	45
11:00 PM	46	63	49	45

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	54	41	47	54	38	49
Lmax (Maximum)	77	55	65	68	48	60
L8 (8% of hour)	57	42	47	60	41	49
L50 (50% of hour)	53	39	43	52	35	43

Computed DNL (dB)	55
% Daytime Energy	49%
% Nighttime Energy	51%

GPS Coordinates	38°31'48.17"N
	121°57'52.31"W

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Appendix C-2
Long-Term Ambient Noise Monitoring Results - Site 1
Farmstead Mixed-Use Subdivision - Winters, California
Thursday, September 23, 2021

Hour	Leq	Lmax	L8	L50
12:00 AM	47	55	49	46
1:00 AM	45	60	49	43
2:00 AM	46	58	50	44
3:00 AM	45	57	49	44
4:00 AM	48	60	52	48
5:00 AM	50	58	53	50
6:00 AM	51	64	53	51
7:00 AM	48	58	51	47
8:00 AM	45	64	47	44
9:00 AM	48	61	51	46
10:00 AM	48	68	50	46
11:00 AM	46	61	49	46
12:00 PM	46	56	49	45
1:00 PM	44	64	47	43
2:00 PM	43	59	45	43
3:00 PM	44	67	46	43
4:00 PM	42	52	44	41
5:00 PM	47	73	47	43
6:00 PM	51	73	53	48
7:00 PM	51	75	52	48
8:00 PM	47	61	50	46
9:00 PM	47	60	49	45
10:00 PM	45	59	48	44
11:00 PM	43	54	46	41

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	51	42	47	51	43	47
Lmax (Maximum)	75	52	63	64	54	58
L8 (8% of hour)	53	44	49	53	46	50
L50 (50% of hour)	48	41	45	51	41	46

Computed DNL (dB)	54
% Daytime Energy	62%
% Nighttime Energy	38%

GPS Coordinates	38°31'48.17"N
	121°57'52.31"W

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Appendix C-3
Long-Term Ambient Noise Monitoring Results - Site 2
Farmstead Mixed-Use Subdivision - Winters, California
Wednesday, September 22, 2021

Hour	Leq	Lmax	L8	L50
12:00 AM	38	53	41	38
1:00 AM	38	44	40	37
2:00 AM	47	67	41	36
3:00 AM	54	68	61	41
4:00 AM	50	63	53	49
5:00 AM	52	61	55	52
6:00 AM	51	60	53	51
7:00 AM	52	59	54	52
8:00 AM	57	84	52	48
9:00 AM	53	82	47	43
10:00 AM	55	80	45	40
11:00 AM	42	57	44	37
12:00 PM	41	56	42	39
1:00 PM	42	59	44	41
2:00 PM	39	49	41	38
3:00 PM	42	62	45	39
4:00 PM	43	57	46	42
5:00 PM	43	61	45	42
6:00 PM	44	68	44	41
7:00 PM	43	54	45	42
8:00 PM	46	64	47	43
9:00 PM	46	56	48	45
10:00 PM	46	58	49	45
11:00 PM	47	64	50	45

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	57	39	50	54	38	49
Lmax (Maximum)	84	49	63	68	44	60
L8 (8% of hour)	54	41	46	61	40	49
L50 (50% of hour)	52	37	42	52	36	44

Computed DNL (dB)	56
% Daytime Energy	64%
% Nighttime Energy	36%

GPS Coordinates	38°31'57.66"N
	121°57'44.22"W

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Appendix C-4
Long-Term Ambient Noise Monitoring Results - Site 2
Farmstead Mixed-Use Subdivision - Winters, California
Thursday, September 23, 2021

Hour	Leq	Lmax	L8	L50
12:00 AM	46	55	49	46
1:00 AM	46	56	49	44
2:00 AM	46	58	49	44
3:00 AM	46	61	49	44
4:00 AM	48	61	51	48
5:00 AM	50	59	53	49
6:00 AM	50	66	52	50
7:00 AM	47	66	49	46
8:00 AM	46	66	47	45
9:00 AM	50	69	54	47
10:00 AM	54	81	53	47
11:00 AM	54	81	52	46
12:00 PM	48	70	51	45
1:00 PM	46	65	49	44
2:00 PM	46	62	48	44
3:00 PM	44	67	46	42
4:00 PM	42	56	44	41
5:00 PM	43	62	45	42
6:00 PM	45	59	47	44
7:00 PM	50	72	51	46
8:00 PM	49	60	51	48
9:00 PM	47	60	49	46
10:00 PM	45	57	47	44
11:00 PM	42	58	44	41

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	54	42	49	50	42	47
Lmax (Maximum)	81	56	66	66	55	59
L8 (8% of hour)	54	44	49	53	44	49
L50 (50% of hour)	48	41	45	50	41	45

Computed DNL (dB)	54
% Daytime Energy	71%
% Nighttime Energy	29%

GPS Coordinates	38°31'57.66"N
	121°57'44.22"W

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Appendix C-5
Long-Term Ambient Noise Monitoring Results - Site 3
Farmstead Mixed-Use Subdivision - Winters, California
Wednesday, September 22, 2021

Hour	Leq	Lmax	L8	L50
12:00 AM	59	78	64	40
1:00 AM	56	75	59	39
2:00 AM	56	73	60	39
3:00 AM	59	77	64	46
4:00 AM	63	80	69	54
5:00 AM	66	81	71	62
6:00 AM	68	85	72	64
7:00 AM	69	80	73	67
8:00 AM	69	83	73	67
9:00 AM	68	87	72	64
10:00 AM	68	81	72	64
11:00 AM	70	95	73	65
12:00 PM	68	84	73	66
1:00 PM	68	84	72	66
2:00 PM	68	84	72	66
3:00 PM	70	86	73	68
4:00 PM	71	95	73	68
5:00 PM	69	78	73	68
6:00 PM	70	99	72	66
7:00 PM	67	82	72	64
8:00 PM	66	81	70	62
9:00 PM	64	76	70	58
10:00 PM	62	77	68	52
11:00 PM	60	75	66	50

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	71	64	68	68	56	63
Lmax (Maximum)	99	76	85	85	73	78
L8 (8% of hour)	73	70	72	72	59	66
L50 (50% of hour)	68	58	65	64	39	49

Computed DNL (dB)	71
% Daytime Energy	86%
% Nighttime Energy	14%

GPS Coordinates	38°31'46.27"N
	121°57'30.74"W

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Appendix C-6
Long-Term Ambient Noise Monitoring Results - Site 3
Farmstead Mixed-Use Subdivision - Winters, California
Thursday, September 23, 2021

Hour	Leq	Lmax	L8	L50
12:00 AM	57	73	62	48
1:00 AM	56	74	58	45
2:00 AM	55	72	58	44
3:00 AM	58	77	64	45
4:00 AM	64	82	69	53
5:00 AM	66	85	71	62
6:00 AM	67	83	72	64
7:00 AM	68	84	72	65
8:00 AM	67	81	71	64
9:00 AM	68	84	72	64
10:00 AM	67	84	72	64
11:00 AM	68	88	72	63
12:00 PM	67	84	72	64
1:00 PM	68	86	72	64
2:00 PM	68	85	72	65
3:00 PM	69	83	73	66
4:00 PM	69	83	73	68
5:00 PM	69	85	73	68
6:00 PM	71	94	73	67
7:00 PM	70	97	72	65
8:00 PM	66	80	71	63
9:00 PM	64	81	70	57
10:00 PM	63	77	68	52
11:00 PM	61	77	67	48

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	71	64	68	67	55	63
Lmax (Maximum)	97	80	85	85	72	78
L8 (8% of hour)	73	70	72	72	58	65
L50 (50% of hour)	68	57	64	64	44	51

Computed DNL (dB)	70
% Daytime Energy	85%
% Nighttime Energy	15%

GPS Coordinates	38°31'46.27"N
	121°57'30.74"W

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Appendix C-7
Long-Term Ambient Noise Monitoring Results - Site 4
Farmstead Mixed-Use Subdivision - Winters, California
Wednesday, September 22, 2021

Hour	Leq	Lmax	L8	L50
12:00 AM	47	66	50	46
1:00 AM	46	54	49	46
2:00 AM	49	67	48	45
3:00 AM	54	68	60	48
4:00 AM	51	64	55	50
5:00 AM	55	67	58	53
6:00 AM	55	67	58	54
7:00 AM	57	70	60	56
8:00 AM	60	82	54	50
9:00 AM	50	60	54	50
10:00 AM	51	63	53	50
11:00 AM	49	62	53	47
12:00 PM	49	61	52	47
1:00 PM	49	60	52	48
2:00 PM	48	61	51	47
3:00 PM	51	72	54	49
4:00 PM	52	70	55	51
5:00 PM	53	71	54	51
6:00 PM	52	72	54	51
7:00 PM	53	69	55	52
8:00 PM	54	76	56	53
9:00 PM	52	60	54	51
10:00 PM	50	64	54	49
11:00 PM	49	59	53	47

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	60	48	53	55	46	52
Lmax (Maximum)	82	60	67	68	54	64
L8 (8% of hour)	60	51	54	60	48	54
L50 (50% of hour)	56	47	50	54	45	49

Computed DNL (dB)	59
% Daytime Energy	70%
% Nighttime Energy	30%

GPS Coordinates	38°31'42.06"N
	121°57'52.63"W

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Appendix C-8
Long-Term Ambient Noise Monitoring Results - Site 4
Farmstead Mixed-Use Subdivision - Winters, California
Thursday, September 23, 2021

Hour	Leq	Lmax	L8	L50
12:00 AM	47	56	50	46
1:00 AM	46	66	50	44
2:00 AM	44	56	48	42
3:00 AM	47	58	52	44
4:00 AM	51	61	55	49
5:00 AM	55	64	58	54
6:00 AM	56	69	59	56
7:00 AM	57	71	61	55
8:00 AM	47	58	50	46
9:00 AM	49	62	52	49
10:00 AM	50	77	51	47
11:00 AM	47	57	50	46
12:00 PM	49	69	51	48
1:00 PM	47	61	49	47
2:00 PM	47	61	49	46
3:00 PM	47	63	49	46
4:00 PM	46	61	48	46
5:00 PM	48	65	50	47
6:00 PM	53	63	56	52
7:00 PM	60	83	60	57
8:00 PM	52	68	55	51
9:00 PM	51	66	54	50
10:00 PM	50	63	53	49
11:00 PM	50	75	52	48

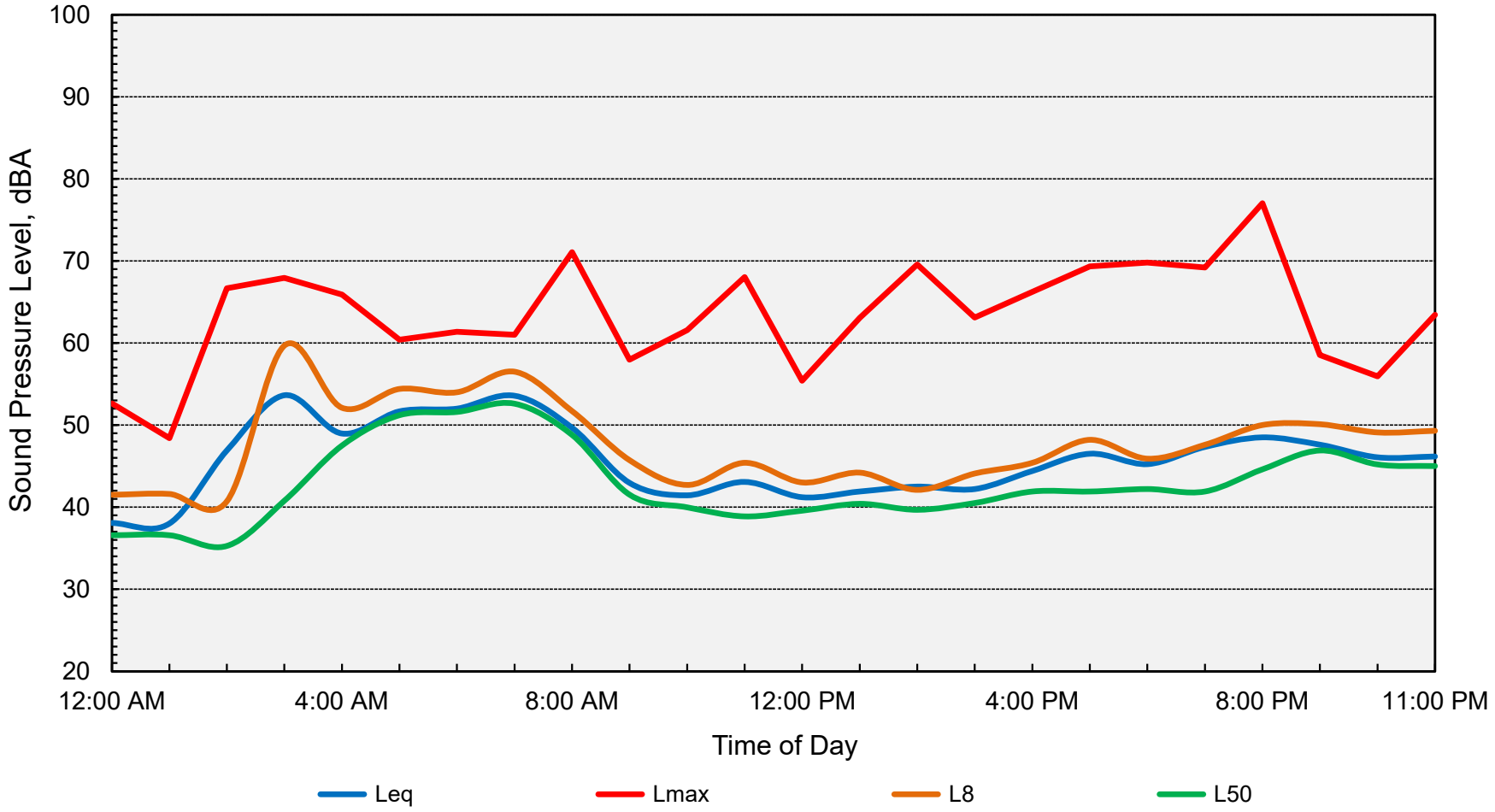
	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	60	46	52	56	44	51
Lmax (Maximum)	83	57	66	75	56	63
L8 (8% of hour)	61	48	52	59	48	53
L50 (50% of hour)	57	46	49	56	42	48

Computed DNL (dB)	58
% Daytime Energy	68%
% Nighttime Energy	32%

GPS Coordinates	38°31'42.06"N
	121°57'52.63"W

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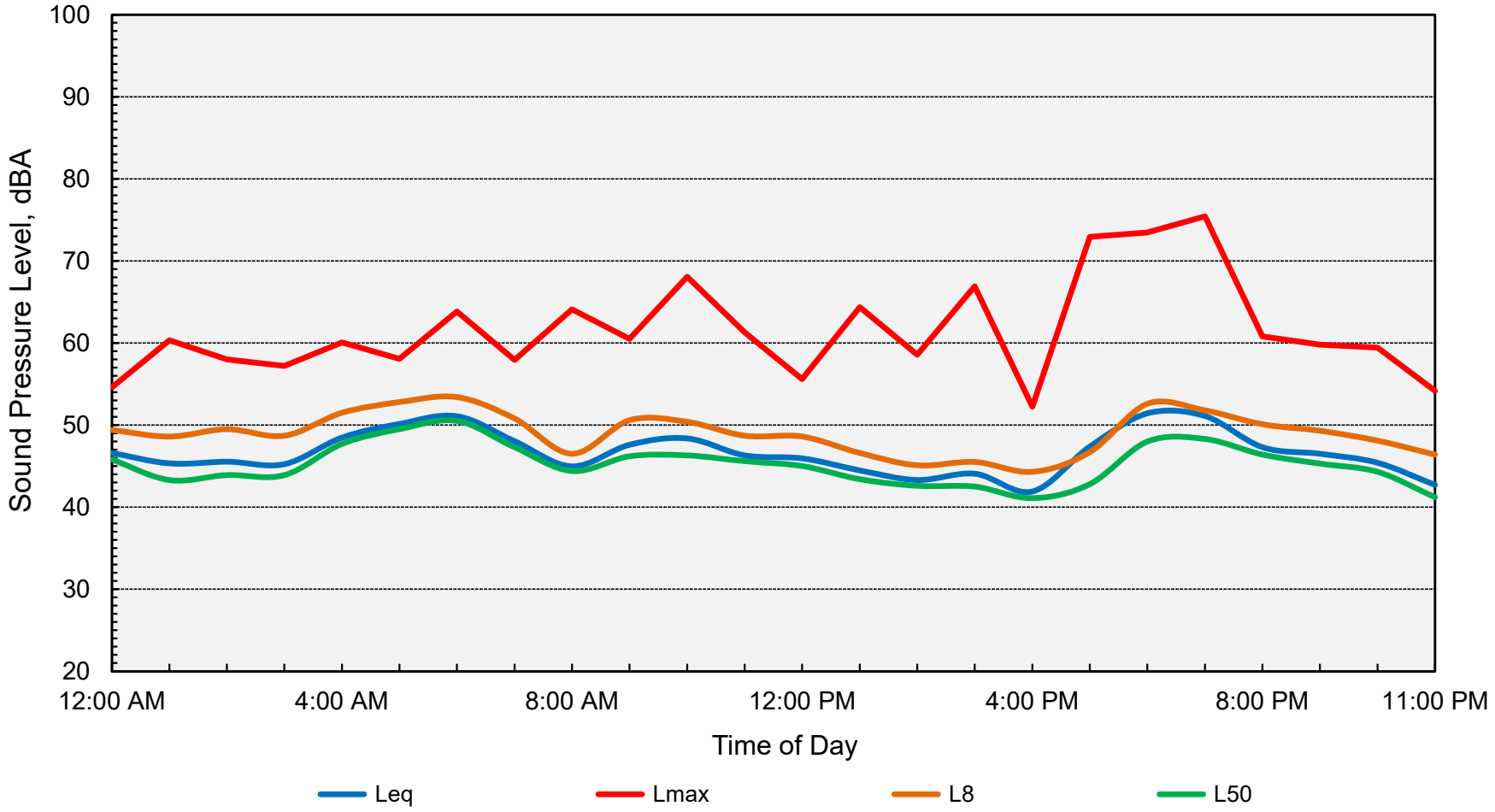
Appendix D-1
Long-Term Ambient Noise Monitoring Results - Site 1
Farmstead Mixed-Use Subdivision - Winters, California
Wednesday, September 22, 2021



Computed DNL = 55 dB

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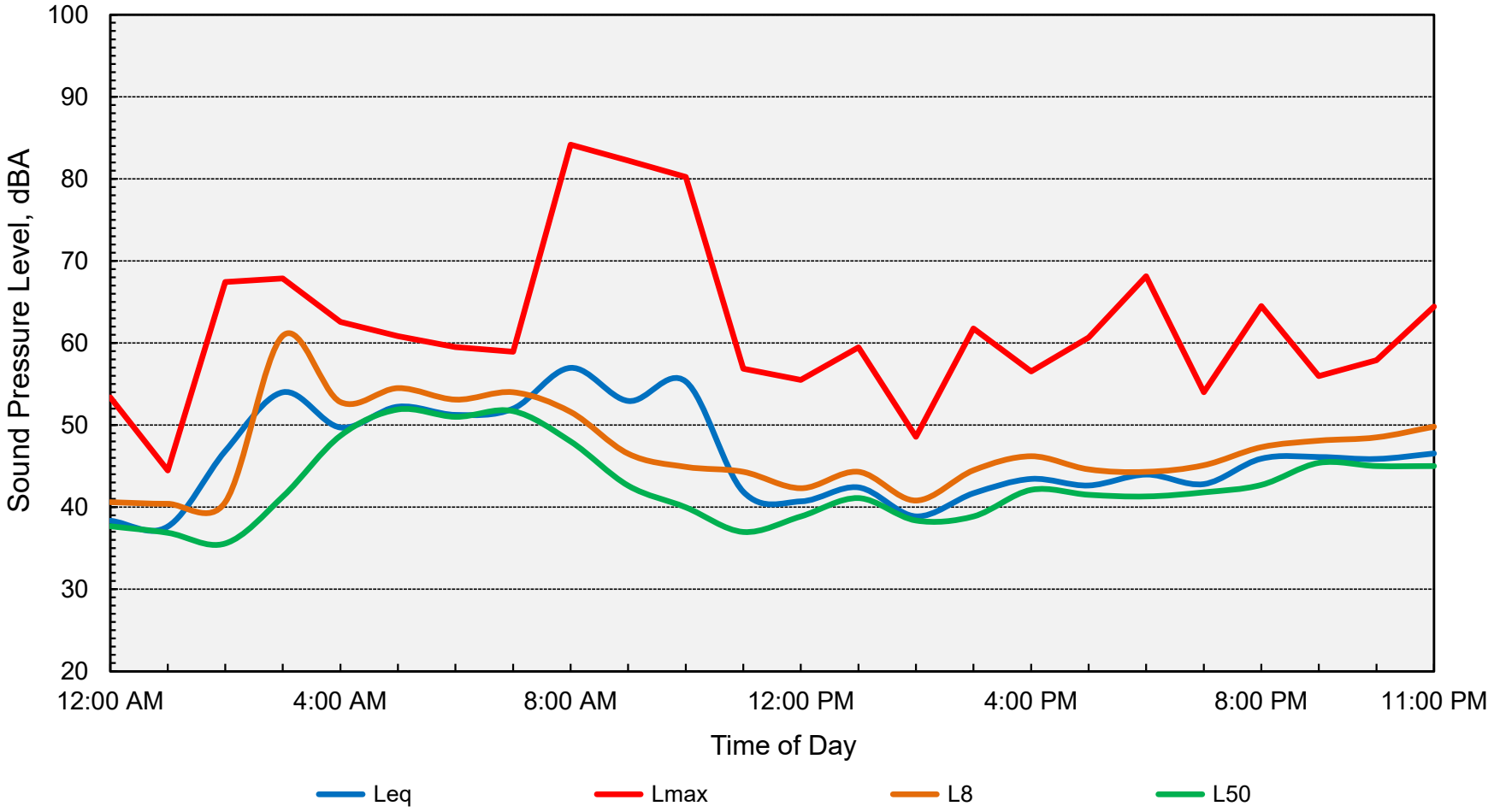
Appendix D-2
Long-Term Ambient Noise Monitoring Results - Site 1
Farmstead Mixed-Use Subdivision - Winters, California
Thursday, September 23, 2021



Computed DNL = 54 dB

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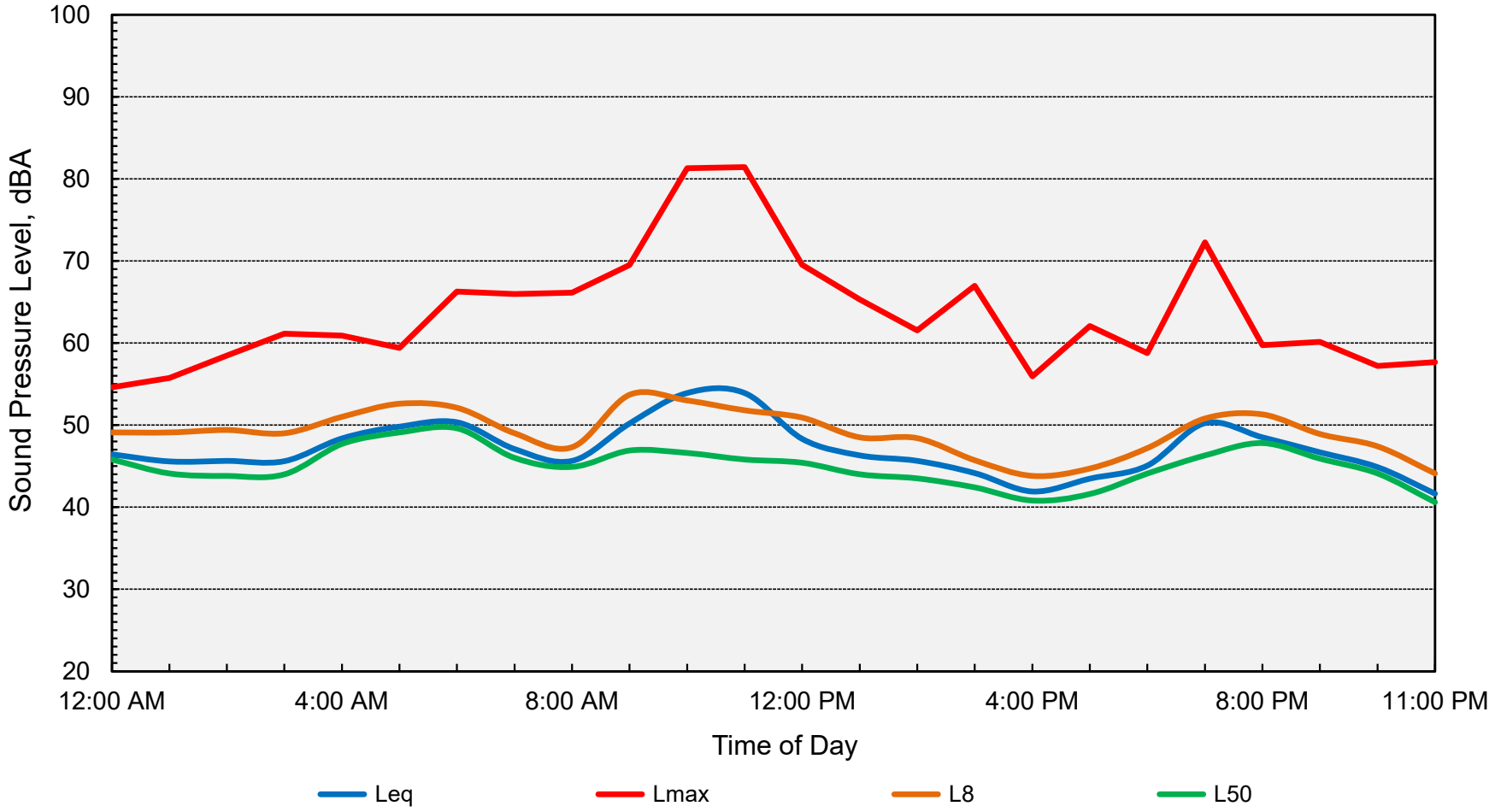
Appendix D-3
Long-Term Ambient Noise Monitoring Results - Site 2
Farmstead Mixed-Use Subdivision - Winters, California
Wednesday, September 22, 2021



Computed DNL = 56 dB

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Acoustical Consultants

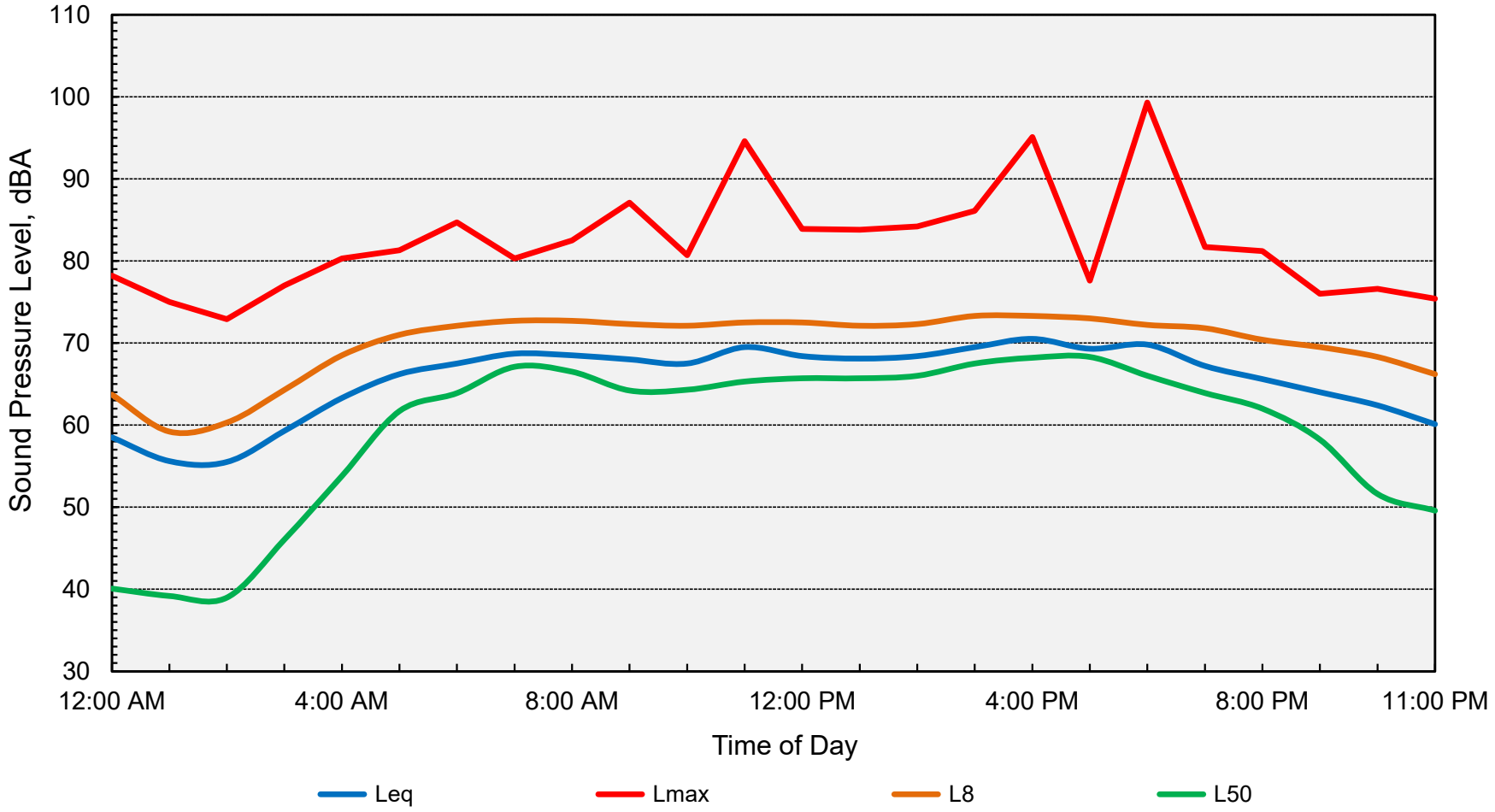
Appendix D-4
Long-Term Ambient Noise Monitoring Results - Site 2
Farmstead Mixed-Use Subdivision - Winters, California
Thursday, September 23, 2021



Computed DNL = 54 dB

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Acoustical Consultants

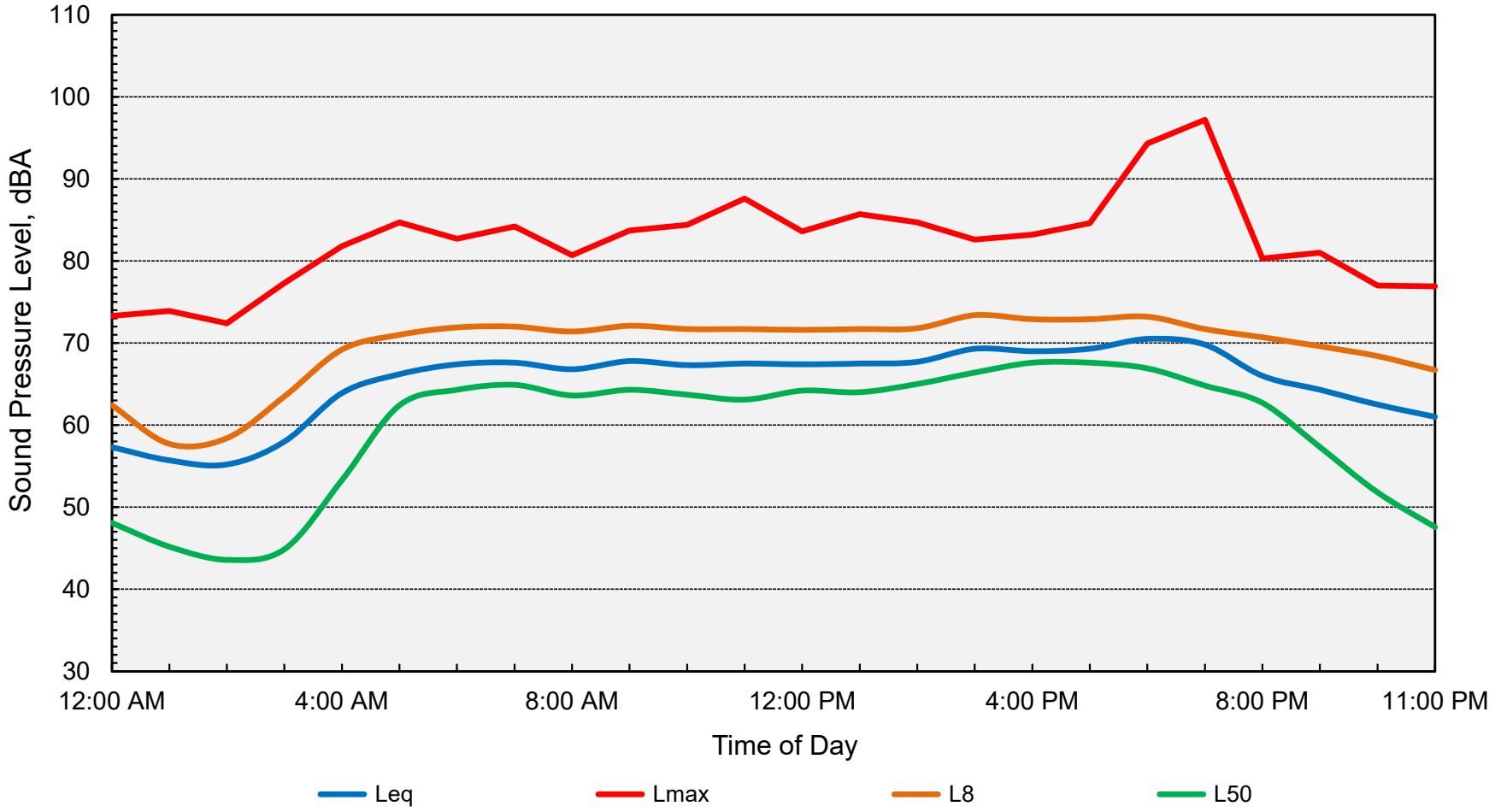
Appendix D-5
Long-Term Ambient Noise Monitoring Results - Site 3
Farmstead Mixed-Use Subdivision - Winters, California
Wednesday, September 22, 2021



Computed DNL = 71 dB

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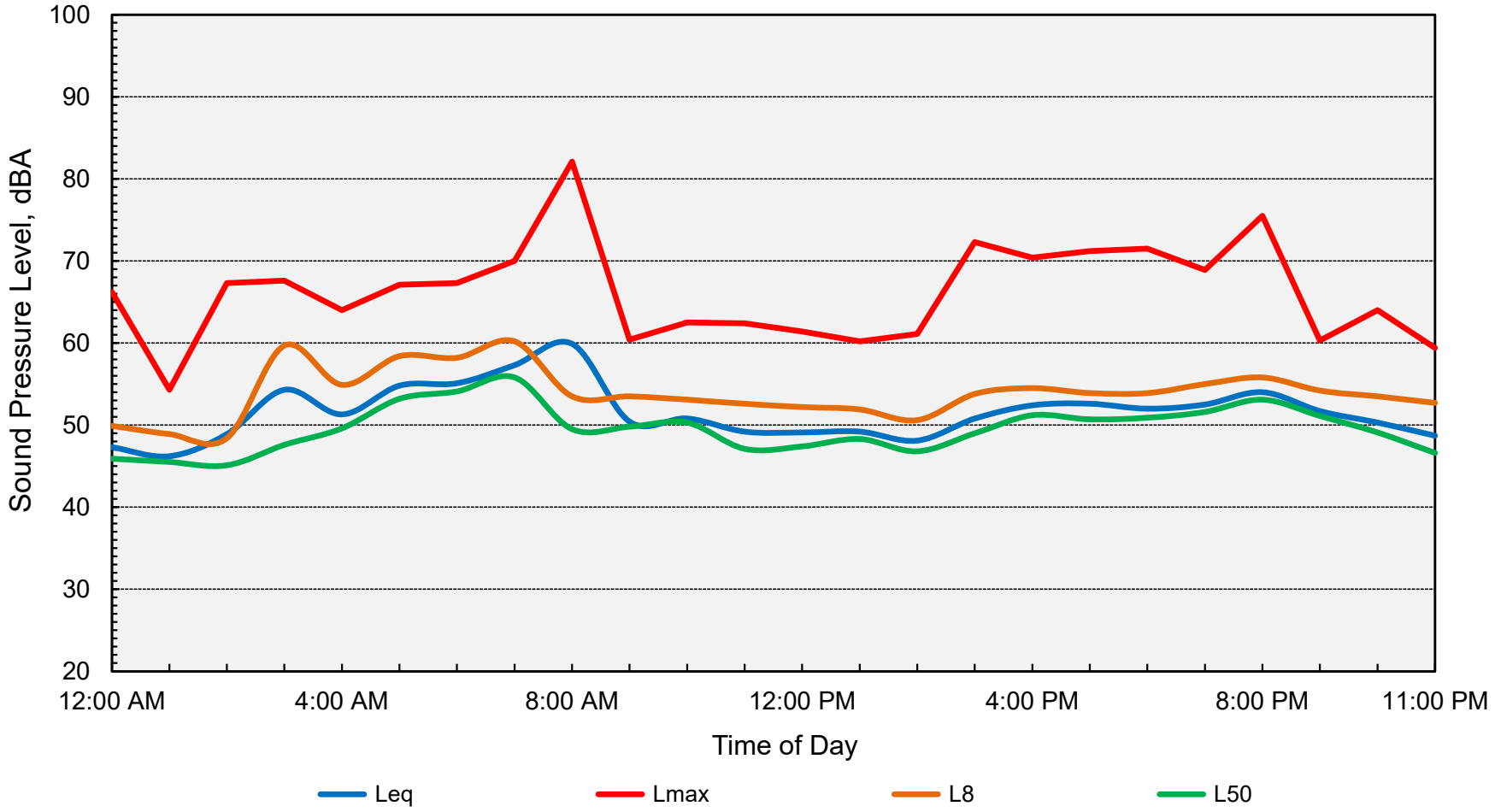
Appendix D-6
Long-Term Ambient Noise Monitoring Results - Site 3
Farmstead Mixed-Use Subdivision - Winters, California
Thursday, September 23, 2021



Computed DNL = 70 dB

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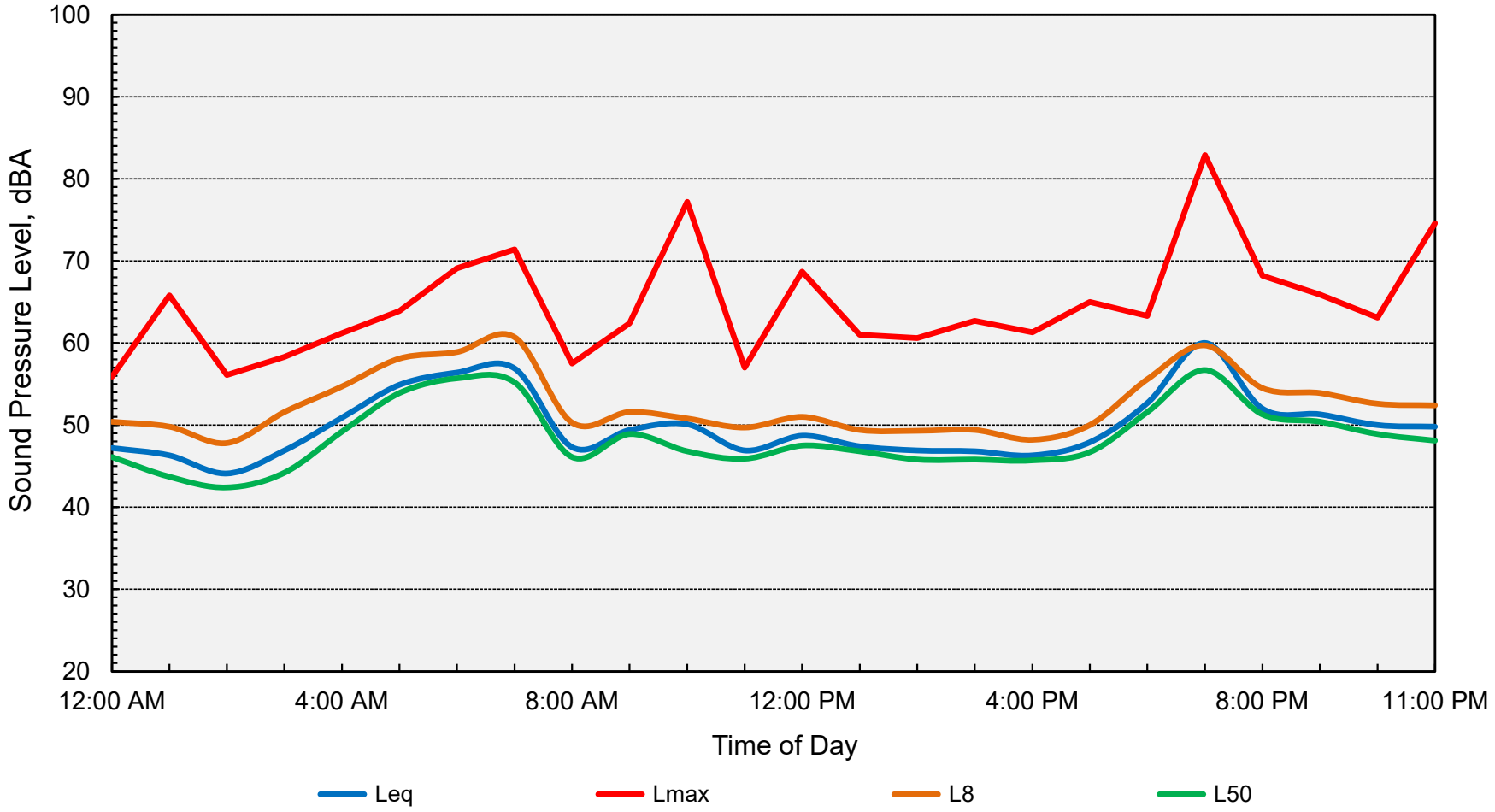
Appendix D-7
Long-Term Ambient Noise Monitoring Results - Site 4
Farmstead Mixed-Use Subdivision - Winters, California
Wednesday, September 22, 2021



Computed DNL = 59 dB

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Appendix D-8
Long-Term Ambient Noise Monitoring Results - Site 4
Farmstead Mixed-Use Subdivision - Winters, California
Thursday, September 23, 2021



Computed DNL = 58 dB

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Appendix E
FHWA Highway Traffic Noise Prediction Model Inputs
Farmstead Mixed-Use Subdivision
File Name: Existing No Project
Run Date: 6/19/2024

#	Roadway	Description	ADT	Day %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance to Receptor	Offset (dB)
1	Grant Ave	West of Railroad Ave	8,115	80	20	2	2	30	95	0
2	Grant Ave	Railroad Ave to Dutton St	10,995	80	20	2	2	30	150	0
3	Grant Ave	Dutton St to Walnut Ln	11,135	80	20	2	2	30	250	0
4	Grant Ave	Walnut Ln to Morgan St	10,640	80	20	2	2	30	150	0
5	Grant Ave	Morgan St to Project Street A	11,245	80	20	2	2	45	350	0
6	Grant Ave	Project Street A to Farmstead Drwy W	11,245	80	20	2	2	45	350	0
7	Grant Ave	Farmstead Drwy W to E Main St	11,245	80	20	2	2	45	350	0
8	Grant Ave	E Main St to Farmstead Drwy E	11,910	80	20	2	2	45	600	0
9	Grant Ave	Farmstead Drwy E to Timbercrest Rd	11,910	80	20	2	2	45	250	0
10	Grant Ave	Timbercrest Rd to County Rd 90	11,945	80	20	2	2	45	100	0
11	Grant Ave	County Rd 90 to I-505 SB Ramps	12,015	80	20	2	2	45	650	0
12	Grant Ave	I-505 SB Ramps to I-505 NB Ramps	9,405	80	20	2	2	45	1000	0
13	Grant Ave	East of I-505 NB Ramps	6,745	80	20	2	2	45	75	0
14	Railroad Ave	North of Grant Ave	6,280	80	20	2	2	30	100	0
15	Railroad Ave	South of Grant Ave	4,390	80	20	2	2	25	100	0
16	Dutton St	North of Grant Ave	800	80	20	1	1	25	100	0
17	Walnut Ln	North of Grant Ave	1,275	80	20	1	1	25	100	0
18	Walnut Ln	South of Grant Ave	480	80	20	1	1	25	315	0
19	Morgan St	North of Grant Ave	0	80	20	1	1	15	400	0
20	Morgan St	South of Grant Ave	1,455	80	20	1	1	25	75	0
21	E Main St	South of Grant Ave	1,115	80	20	1	1	25	75	0
22	Timbercrest Rd	North of Grant Ave	20	80	20	1	1	25	115	-5
23	PG&E Way	South of Grant Ave	95	80	20	1	1	25	200	0
24	County Rd 90	North of Grant Ave	2,970	80	20	2	2	45	250	-5
25	County Rd 90	South of Grant Ave	0	80	20	2	2	25	650	-10
26	I-505 SB Ramps	South of Grant Ave	2,345	80	20	2	1	55	900	0
27	I-505 NB Ramps	North of Grant Ave	3,520	80	20	2	1	55	1100	0

Appendix F
FHWA Highway Traffic Noise Prediction Model Inputs
Farmstead Mixed-Use Subdivision
File Name: EPAP No Project
Run Date: 6/19/2024

#	Roadway	Description	ADT	Day %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance to Receptor	Offset (dB)
1	Grant Ave	West of Railroad Ave	8,600	80	20	2	2	30	95	0
2	Grant Ave	Railroad Ave to Dutton St	11,675	80	20	2	2	30	150	0
3	Grant Ave	Dutton St to Walnut Ln	11,975	80	20	2	2	30	250	0
4	Grant Ave	Walnut Ln to Morgan St	11,650	80	20	2	2	30	150	0
5	Grant Ave	Morgan St to Project Street A	12,400	80	20	2	2	45	350	0
6	Grant Ave	Project Street A to Farmstead Drwy W	12,400	80	20	2	2	45	350	0
7	Grant Ave	Farmstead Drwy W to E Main St	12,400	80	20	2	2	45	350	0
8	Grant Ave	E Main St to Farmstead Drwy E	12,775	80	20	2	2	45	600	0
9	Grant Ave	Farmstead Drwy E to Timbercrest Rd	12,775	80	20	2	2	45	250	0
10	Grant Ave	Timbercrest Rd to County Rd 90	13,525	80	20	2	2	45	100	0
11	Grant Ave	County Rd 90 to I-505 SB Ramps	13,550	80	20	2	2	45	650	0
12	Grant Ave	I-505 SB Ramps to I-505 NB Ramps	10,650	80	20	2	2	45	1000	0
13	Grant Ave	East of I-505 NB Ramps	7,600	80	20	2	2	45	75	0
14	Railroad Ave	North of Grant Ave	7,175	80	20	2	2	30	100	0
15	Railroad Ave	South of Grant Ave	5,100	80	20	2	2	25	100	0
16	Dutton St	North of Grant Ave	1,050	80	20	1	1	25	100	0
17	Walnut Ln	North of Grant Ave	2,050	80	20	1	1	25	100	0
18	Walnut Ln	South of Grant Ave	900	80	20	1	1	25	315	0
19	Morgan St	North of Grant Ave	0	80	20	1	1	15	400	0
20	Morgan St	South of Grant Ave	1,850	80	20	1	1	25	75	0
21	E Main St	South of Grant Ave	1,350	80	20	1	1	25	75	0
22	Timbercrest Rd	North of Grant Ave	100	80	20	1	1	25	115	-5
23	PG&E Way	South of Grant Ave	1,050	80	20	1	1	25	200	0
24	County Rd 90	North of Grant Ave	3,500	80	20	2	2	45	250	-5
25	County Rd 90	South of Grant Ave	0	80	20	2	2	25	650	-10
26	I-505 SB Ramps	South of Grant Ave	2,625	80	20	2	1	55	900	0
27	I-505 NB Ramps	North of Grant Ave	3,975	80	20	2	1	55	1100	0

Appendix G
FHWA Highway Traffic Noise Prediction Model Inputs
Farmstead Mixed-Use Subdivision
File Name: EPAP+Project
Run Date: 6/19/2024

#	Roadway	Description	ADT	Day %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance to Receptor	Offset (dB)
1	Grant Ave	West of Railroad Ave	8,850	80	20	2	2	30	95	0
2	Grant Ave	Railroad Ave to Dutton St	12,525	80	20	2	2	30	150	0
3	Grant Ave	Dutton St to Walnut Ln	12,825	80	20	2	2	30	250	0
4	Grant Ave	Walnut Ln to Morgan St	12,300	80	20	2	2	30	150	0
5	Grant Ave	Morgan St to Project Street A	13,150	80	20	2	2	45	350	0
6	Grant Ave	Project Street A to Farmstead Drwy W	12,725	80	20	2	2	45	350	0
7	Grant Ave	Farmstead Drwy W to E Main St	12,725	80	20	2	2	45	350	0
8	Grant Ave	E Main St to Farmstead Drwy E	13,875	80	20	2	2	45	600	0
9	Grant Ave	Farmstead Drwy E to Timbercrest Rd	14,050	80	20	2	2	45	250	0
10	Grant Ave	Timbercrest Rd to County Rd 90	14,800	80	20	2	2	45	100	0
11	Grant Ave	County Rd 90 to I-505 SB Ramps	14,700	80	20	2	2	45	650	0
12	Grant Ave	I-505 SB Ramps to I-505 NB Ramps	11,375	80	20	2	2	45	1000	0
13	Grant Ave	East of I-505 NB Ramps	8,100	80	20	2	2	45	75	0
14	Railroad Ave	North of Grant Ave	7,550	80	20	2	2	30	100	0
15	Railroad Ave	South of Grant Ave	5,225	80	20	2	2	25	100	0
16	Dutton St	North of Grant Ave	1,050	80	20	1	1	25	100	0
17	Walnut Ln	North of Grant Ave	1,675	80	20	1	1	25	100	0
18	Walnut Ln	South of Grant Ave	950	80	20	1	1	25	315	0
19	Morgan St	North of Grant Ave	0	80	20	1	1	15	400	0
20	Morgan St	South of Grant Ave	1,950	80	20	1	1	25	75	0
21	E Main St	South of Grant Ave	1,700	80	20	1	1	25	75	0
22	Timbercrest Rd	North of Grant Ave	100	80	20	1	1	25	115	-5
23	PG&E Way	South of Grant Ave	1,050	80	20	1	1	25	200	0
24	County Rd 90	North of Grant Ave	3,625	80	20	2	2	45	250	-5
25	County Rd 90	South of Grant Ave	0	80	20	2	2	25	650	-10
26	I-505 SB Ramps	South of Grant Ave	2,900	80	20	2	1	55	900	0
27	I-505 NB Ramps	North of Grant Ave	4,200	80	20	2	1	55	1100	0

Appendix H
FHWA Highway Traffic Noise Prediction Model Inputs
Farmstead Mixed-Use Subdivision
File Name: Cumulative No Project
Run Date: 6/19/2024

#	Roadway	Description	ADT	Day %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance to Receptor	Offset (dB)
1	Grant Ave	West of Railroad Ave	9,925	80	20	2	2	30	95	0
2	Grant Ave	Railroad Ave to Dutton St	12,275	80	20	2	2	30	150	0
3	Grant Ave	Dutton St to Walnut Ln	13,825	80	20	2	2	30	250	0
4	Grant Ave	Walnut Ln to Morgan St	13,375	80	20	2	2	30	150	0
5	Grant Ave	Morgan St to Project Street A	14,250	80	20	2	2	45	350	0
6	Grant Ave	Project Street A to Farmstead Drwy W	13,825	80	20	2	2	45	350	0
7	Grant Ave	Farmstead Drwy W to E Main St	13,775	80	20	2	2	45	350	0
8	Grant Ave	E Main St to Farmstead Drwy E	16,125	80	20	2	2	45	600	0
9	Grant Ave	Farmstead Drwy E to Timbercrest Rd	16,000	80	20	2	2	45	250	0
10	Grant Ave	Timbercrest Rd to County Rd 90	19,050	80	20	2	2	45	100	0
11	Grant Ave	County Rd 90 to I-505 SB Ramps	20,125	80	20	2	2	45	650	0
12	Grant Ave	I-505 SB Ramps to I-505 NB Ramps	14,975	80	20	2	2	45	1000	0
13	Grant Ave	East of I-505 NB Ramps	10,150	80	20	2	2	45	75	0
14	Railroad Ave	North of Grant Ave	8,075	80	20	2	2	30	100	0
15	Railroad Ave	South of Grant Ave	6,975	80	20	2	2	25	100	0
16	Dutton St	North of Grant Ave	2,800	80	20	1	1	25	100	0
17	Walnut Ln	North of Grant Ave	2,575	80	20	1	1	25	100	0
18	Walnut Ln	South of Grant Ave	1,200	80	20	1	1	25	315	0
19	Morgan St	North of Grant Ave	1,675	80	20	1	1	15	400	0
20	Morgan St	South of Grant Ave	2,350	80	20	1	1	25	75	0
21	E Main St	South of Grant Ave	4,225	80	20	1	1	25	75	0
22	Timbercrest Rd	North of Grant Ave	8,050	80	20	1	1	25	115	-5
23	PG&E Way	South of Grant Ave	2,400	80	20	1	1	25	200	0
24	County Rd 90	North of Grant Ave	4,500	80	20	2	2	45	250	-5
25	County Rd 90	South of Grant Ave	0	80	20	2	2	25	650	-10
26	I-505 SB Ramps	South of Grant Ave	4,325	80	20	2	1	55	900	0
27	I-505 NB Ramps	North of Grant Ave	5,950	80	20	2	1	55	1100	0

Appendix I
FHWA Highway Traffic Noise Prediction Model Inputs
Farmstead Mixed-Use Subdivision
File Name: Cumulative+Project
Run Date: 6/19/2024

#	Roadway	Description	ADT	Day %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance to Receptor	Offset (dB)
1	Grant Ave	West of Railroad Ave	10,175	80	20	2	2	30	95	0
2	Grant Ave	Railroad Ave to Dutton St	13,125	80	20	2	2	30	150	0
3	Grant Ave	Dutton St to Walnut Ln	14,675	80	20	2	2	30	250	0
4	Grant Ave	Walnut Ln to Morgan St	14,025	80	20	2	2	30	150	0
5	Grant Ave	Morgan St to Project Street A	15,000	80	20	2	2	45	350	0
6	Grant Ave	Project Street A to Farmstead Drwy W	14,150	80	20	2	2	45	350	0
7	Grant Ave	Farmstead Drwy W to E Main St	14,100	80	20	2	2	45	350	0
8	Grant Ave	E Main St to Farmstead Drwy E	17,225	80	20	2	2	45	600	0
9	Grant Ave	Farmstead Drwy E to Timbercrest Rd	17,275	80	20	2	2	45	250	0
10	Grant Ave	Timbercrest Rd to County Rd 90	20,325	80	20	2	2	45	100	0
11	Grant Ave	County Rd 90 to I-505 SB Ramps	21,275	80	20	2	2	45	650	0
12	Grant Ave	I-505 SB Ramps to I-505 NB Ramps	15,700	80	20	2	2	45	1000	0
13	Grant Ave	East of I-505 NB Ramps	10,650	80	20	2	2	45	75	0
14	Railroad Ave	North of Grant Ave	8,450	80	20	2	2	30	100	0
15	Railroad Ave	South of Grant Ave	7,100	80	20	2	2	25	100	0
16	Dutton St	North of Grant Ave	2,800	80	20	1	1	25	100	0
17	Walnut Ln	North of Grant Ave	2,200	80	20	1	1	25	100	0
18	Walnut Ln	South of Grant Ave	1,250	80	20	1	1	25	315	0
19	Morgan St	North of Grant Ave	1,675	80	20	1	1	15	400	0
20	Morgan St	South of Grant Ave	2,450	80	20	1	1	25	75	0
21	E Main St	South of Grant Ave	4,575	80	20	1	1	25	75	0
22	Timbercrest Rd	North of Grant Ave	8,050	80	20	1	1	25	115	-5
23	PG&E Way	South of Grant Ave	2,400	80	20	1	1	25	200	0
24	County Rd 90	North of Grant Ave	4,625	80	20	2	2	45	250	-5
25	County Rd 90	South of Grant Ave	0	80	20	2	2	25	650	-10
26	I-505 SB Ramps	South of Grant Ave	4,600	80	20	2	1	55	900	0
27	I-505 NB Ramps	North of Grant Ave	6,175	80	20	2	1	55	1100	0

Appendix K

Technical Memorandum

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

To:	Megan Buche, PSOMAS, Winters City Engineer Dave Dowswell, City of Winters, Interim City Planner		
From:	Jim Fletter, PE	**CC:**	Mike Motroni, Principal Engineer, Wood Rodgers Timothy Denham, Principal Planner, Wood Rodgers
Date:	June 26, 2024		
Subject:	Farmstead Subdivision Current Water Demand		

Background

Woodard & Curran prepared a technical memorandum evaluating the water supply demands from the Farmstead Subdivision (Subdivision) on the City of Winters' water distribution network. That memo, dated September 13, 2021, is provided in **Appendix A** and referred to in this memo as **2021 Farmstead.** The memo concluded that the buildout of the Subdivision would exacerbate existing fire demand deficiencies; however, the deficiency would be eliminated after full development of the City's planned Well #8, and no additional water supply improvements would be needed.

The demands calculated in the 2021 Farmstead memo are summarized in the following table. During our evaluation of the 2021 Farmstead memo, it was determined that data was presented incorrectly. The 2021 Farmstead memo incorrectly reported the Park demand factor, and residential and commercial demands. As explained in the footnotes, the table presented below corrects for those errors.

2021 Farmstead – Average Day, Max Day and Peak Hour Water Demand

Land Use	Units	Acres	Flow Factor (gpd per Unit or Acre)	Average Annual Demand (AFY)	Average Day Demand (gpm)	Max Day Demand (gpm)	Peak Hour Demand (gpm)
Single-Family Residential	208	28.6	270	62.9	39.0	91.7	137.5
Multi-Family Residential	56	2.5	150	9.4	5.8	13.7	20.6
Commercial		11.1	2,038	25.3	15.7	36.9	55.4
Park		5.5	6,704[1]	41.3	25.6	60.2	90.3
Non-Irrigated[2]		14.2	0	0	0	0	0
Totals	**264**	**61.9**		**138.9**	**86.1**	**202.4**	**303.4**

[1] Flow factors and demand values are corrected from the 2021 memo (Table 2). Park flow factor is reported as 36,874 gpd/acre in the 2021 Farmstead memo but was intended to be 6,704 gpd/acre (36,874 gpd / 5.5 acres).
[2] Non-Irrigated includes open space, drainage channel, sewer lift station and right-of-way.

In the intervening years since that 2021 Farmstead memo was prepared, the lotting configuration has changed with the current Tentative Subdivision Map (TSM), dated January 10, 2024. The TSM, provided in Appendix B, has fewer overall residential units and commercial space; however, the public irrigated parks and other landscape areas have increased. The figure on the following page shows the current land uses and annual water demands.

Through a February 9, 2024 technical memo[3], the peaking factors for max day and max hour demands were revised. While the peak day and peak hour factors used in the 2021 Farmstead memo were 2.35 and 3.53, respectively, the peaking factors used to calculate max day and peak hour demands in the below table are 2.30 and 3.45. The table calculates the current average and annual day demands utilizing the current units and acreages with same corrected demand factors as the 2021 Farmstead memo.

2024 Farmstead - Average Day, Max Day and Peak Hour Water Demand

Land Use	Units	Acres	Flow Factor (gpd per Unit or Acre)	Average Annual Demand (AFY)	Average Day Demand (gpm)	Max Day Demand[4] (gpm)	Peak Hour Demand[5] (gpm)
Single-Family Residential	188	27.9	270[6]	56.9	35.3	81.2	121.8
Multi-Family Residential	141	9.4	150[6]	23.7	14.7	33.8	50.7
Commercial		2.9	2,038[7]	6.6	4.1	9.4	14.1
Parks, Landscaping Lots, Paseos and Park/Basin		7.4	6,704[8]	55.6	34.5	79.4	119.0
Non-irrigated[9]		14.3	0	0	0	0	0
Totals	**329**	**61.9**		**142.8**	**88.6**	**203.8**	**305.6**

Findings

Based on the peak hour water demand from the 2021 Farmstead project (303.4 gpm) and the 2024 TSM (305.6 gpm), as shown in the above tables, the water demands from the Farmstead Subdivision slightly increase. The annual water usage has also increased from 139 acre feet to 143 acre feet. These increases are insignificant at 0.7% for peak hour and 2.9% for annual acre-feet; therefore, based on the Farmstead 2021 memo findings, the current land use plan for the Farmstead Subdivision will have negligible impact on the ability of the City's water supply network to serve the Subdivision, once Well #8 is fully developed.

[3] Woodard & Curran, City of Winters Master Plan: Capacity Evaluation, February 9, 2024
[4] Max Day flow factor is 2.3 based on February 9, 2024 memo, Section 3.4.
[5] Peak Hour flow factor is 3.45 based on February 9, 2024 memo, Section 3.4.
[6] Woodard & Curran, Water Demands Assessment and Model Updates Technical Memo, May 1, 2020, Section 3.
[7] Based on value provided in 2021 memo, Table 2, and provided in the first table of this memo.
[8] Based on corrected valve provided in the first table of this memo and adapted from the 2021 memo as noted.
[9] Non-Irrigated includes drainage channel, right-of-way, and proposed IOD from February 10, 2024 TSM.



JANUARY 2024 LAND USE
FARMSTEAD SUBDIVISION
WINTERS, CA
JUNE 2024

LDR
MDR
COMM
HDR
TOWNHOMES
PARK/BASIN
DRAINAGE

0 100 200 400
Feet

NORTH

WOOD RODGERS

J:\3000-s\3385-Winters 61\Winters 61_OA\GIS\ArcGIS Pro\Sewer Study\Sewer Study.aprx 6/24/2024 1:51 PM anguyen

APPENDIX A

TECHNICAL MEMORANDUM
SKREDEN FARMSTEAD DEVELOPMENT WATER SYSTEM HYDRAULIC ANALYSIS
SEPTEMBER 13, 2021

TECHNICAL MEMORANDUM

TO: Alan Mitchell, P.E., City Engineer, City of Winters

PREPARED BY: Ian Jaffe, Woodard & Curran, CA PE No. 85788

REVIEWED BY: Chris van Lienden, Woodard & Curran, CA PE No. 75034
Glenn Hermanson, Woodard & Curran, CA PE No. 46659

DATE: September 13, 2021

RE: Skreden Farmstead Development Water System Hydraulic Analysis

The following technical memorandum summarizes the assessment of whether the City of Winters' (City) potable water system has sufficient distribution and supply capacity to serve the additional demands in the proposed Skreden Farmstead development.

1. INTRODUCTION

The City's water distribution model used in this evaluation was originally developed as part of the 2006 Water Master Plan and has been updated to reflect recently constructed infrastructure (such as the implementation of Well #7) and to update demand projections. Specifically, as part of a separate evaluation, the City's current water model was updated to more accurately reflect existing demands as part of the Water Demands Assessment and Model Updates Draft Technical Memorandum[1] (2020 Water Demands Assessment). As discussed in that TM, overall average annual demands were reduced by 20%, while the max day peaking factor was adjusted from 2.6 to 2.35. Future modeled demands have also been updated to reflect the proposed Meritage Hideaway development and other proposed developments as summarized in Table 1.

In addition, the model has been updated to better reflect existing groundwater conditions in the City's wells, described in the Well Capacity and Siting Assessment TM[2] (Well Capacity TM). As described in the Well Capacity and Siting Assessment TM, due to the changes in estimated well production rates, the distribution system currently does not meet fire flow and pressure requirements for existing demands under the Fire #2C scenario, which assumes an industrial fire under maximum day demand conditions with Well 7 out of service. The TM notes that the deficiency could be relieved through implementation of either a new well (Well #8), or a new storage tank with attached pump station. Since that TM was completed, the City has decided to construct a new well (Well #8), with a projected project completion of Fall 2022.

The updated water system model was used to evaluate the impacts of the proposed Skreden Farmstead development on the existing water system, and whether the planned Well #8 would still be sufficient to meet all anticipated demands, including the Skreden development, within the City.

[1] Water Demands Assessment and Model Updates Draft TM, May 2020, Woodard & Curran.
[2] Well Capacity and Siting Assessment TM, April 2021, Woodard & Curran.

Table 1: Modeled Demands Excluding Proposed Skreden Farmstead Development

Development	Type of Development	Planned Implementation Year	# Units/Acreage	Unit Flow Factor (gpd/ unit, acre, or room)	Average Day (gpd)	Average Day (gpm)	Max Day (gpm)	Peak Hour (gpm)
Existing Demands (see Water Demands Assessment TM)						**798**	**1,876**	**2,814**
Stones Throw (see Stones Throw Hydraulic Analysis TM[1])						**106**	**249**	**373**
Additional Developments								
Blue Mountain Terrace	Multi-Family Residential	2024-2029	62 DU	150	9,300	6.5	15.2	22.8
Olive Grove	Single-Family Residential	2024-2029	18 DU	270	4,860	3.4	7.9	11.9
Walnut 10 (Corbett)	Single-Family Residential	2024-2029	53 DU	270	14,310	9.9	23.4	35.0
Winters Healthcare	Medical Office	2024-2029	1.36 Acres	2,038	2,772	1.9	4.5	6.8
Fairfield Inn	Hotel	2024-2029	72 Rooms	150	10,800	7.5	17.6	26.4
Cottages at Carter Ranch Phase 2	Single-Family Residential	2024-2029	6 DU	270	1,620	1.1	2.6	4.0
LDS Takhar	Single-Family Residential	2024-2029	26 DU	270	7,020	4.9	11.5	17.2
Grocery Outlet	Commercial	2024-2029	3.5 Net Acres	2,038	7,133	5.0	11.6	17.5
Hideaway (Winters Highlands) Ph 3-5	Single-Family Residential	2024-2029	201 DU	270	54,270	37.7	88.6	132.8
Heartland Phases 1 & 2	Single-Family Residential	2024-2029	109 DU	270	29,430	20.4	48.0	72.0
	Total Additional Developments					**98**	**231**	**346**
	Total Model Demands					**1,002**	**2,356**	**3,533**

[1] Stones Throw Hydraulic Analysis TM, May 2020, Woodard & Curran.

2. SKREDEN FARMSTEAD WATER DEMANDS

Water demands for the Skreden Farmstead development were based on the demand factors for new development documented in the 2020 Water Demands Assessment using the unit counts provided by Wood Rodgers[1] (Appendix A). The development includes 208 single-family homes, 56 multi-family units, and 11.1 acres of commercial development. The development also includes one 5.3 acre park.

Demands for Skreden Farmstead are listed in **Table 2**. The average day demands were determined from multiplying the water demand factors for new housing in the 2020 Water Demands Assessment by the number of dwelling units or acreage of commercial development or irrigated park.

Table 2: Skreden Farmstead Development Demands

Development Type	# Units / Acreage	Flow Factor (gpd/unit or gpd/acre)	Average Day Demand (gpm)	Max Day Demand (gpm)	Peak Hour Demand (gpm)
Single-Family Residential	208	270	9.0	21.2	31.7
Multi-Family Residential	56	150	13.9	32.6	48.9
Commercial	11.1	2,038	24.3	57.2	85.7
Park	5.5	36,874	25.6	60.2	90.3
Total			**86.2**	**202.5**	**303.7**

3. MODEL RESULTS

The modeled demands discussed above have been incorporated into the model. Results of the model runs are discussed below.

3.1 Model Scenarios

The model was run under the scenarios described in the 2015 Water Supply Analysis Technical Memorandum, summarized in **Table 3**. Each scenario reflects a specific demand condition, in addition to a fire flow at a specific location. As described in the 2020 Water Demands Assessment, additional future developments, assumed to be constructed prior to Skreden Farmstead, were added to the model as part of the updated existing conditions. For each of the model scenarios, demands were adjusted to represent the existing conditions scenario or to include the Skreden Farmstead demands discussed in Section 2.

[1] Illustrative Map, Farmstead, March 11, 2021, Wood Rodgers.

Table 3: Model Scenarios

Scenario Name	Node ID	Demand Conditions	Minimum Pressure Criteria	Location of Study Hydrants (Fire Flow)
Existing Max Hour	N/A	Max Hour w/all wells operating	30 psi @ service connection	
Fire #1A	J-2413 J-1275	Max Day w/fire at City Hall w/Well #7 out of service	20 psi @ hydrant	First and Main Streets (2,000 gpm)
Fire #2A	J-2409 J-1091	Max Day w/fire near Mariani Storage and Shipping w/Well #2 out of service	20 psi @ hydrant	Baker St. (1,500 gpm) and Edwards St. (1500 gpm)
Fire #2B	J-2409 J-1091	Max Day w/fire near Mariani Storage and Shipping w/Well #6 out of service	20 psi @ hydrant	Baker St. (1,500 gpm) and Edwards St. (1,500 gpm)
Fire #2C	J-2409 J-1091	Max Day w/fire near Mariani Storage and Shipping w/Well #7 out of service	20 psi @ hydrant	Baker St. (1,500 gpm) and Edwards St. (1,500 gpm)
Fire #3	J-2407	Max Day w/fire in western residential area w/Well #4 out of service	20 psi @ hydrant	Jefferson or Mac Arthur St. (1,500 gpm)
Fire #4	J-1207	Max Day w/fire in eastern residential area w/Well #6 out of service	20 psi @ hydrant	Wild Rose Lane (1,500 gpm)
Fire #5	J-2237	Max Day w/fire in northeastern residential area w/Well #6 out of service	20 psi @ hydrant	Orchard Lane (1,500 gpm)
Fire #6	J-2405	Max Day w/fire in northwestern residential area w/Well #5 out of service	20 psi @ hydrant	Village Cr. (1,500 gpm)
Fire #7	J-2417 J-1077	Max Day w/fire near Winters High School w/Well #6 out of service	20 psi @ hydrant	Railroad St. between Grant St. (Route 128) and Anderson Ave. (2,000 gpm[1])
Fire #8	J-2419 J-1243	Max Day w/fire near John Clayton school w/Well #6 out of service	20 psi @ hydrant	Edwards St. between 3rd and 2nd St. (2,000 gpm[1])
Fire #9	J-2095 J-2107	Max Day w/fire near Wagoner School w/Well #4 out of service	20 psi @ hydrant	Grant St. at the intersection of Grant St. and Cemetery Dr. (2,000 gpm[1])
Fire #12	J-2315	Max Day w/fire near future western residential developments w/Well #7 out of service	20 psi @ hydrant	Main St. and Ivy Loop (1,500 gpm)

Notes:

1. The City does not currently have a specific fire flow requirement for schools. A maximum fire flow requirement of 2,000 gpm was assumed from the 2006 Master Plan.

3.2 Model Results

Model results are summarized in **Table 4**. For this analysis, the pressure criteria is met if pressure exceeds 20 psi everywhere in the system.

Table 4: Skreden Development Evaluation

Scenario Name	Pressure Criteria Met with Existing Wells?		Pressure Criteria Met with New Well (Well #8)?[2]
	Existing Conditions	Future Conditions – with Skreden Farmstead	Future Conditions – with Skreden Farmstead
Max Hour	Yes	Yes	Yes
Fire #1A	Yes	Yes	Yes
Fire #2A	Yes	Yes	Yes
Fire #2B	Yes	Yes	Yes
Fire #2C	No	No	Yes
Fire #3	Yes	Yes	Yes
Fire #4	Yes	Yes	Yes
Fire #5[1]	No	No	No
Fire #6	Yes	Yes	Yes
Fire #7	Yes	Yes	Yes
Fire #8	Yes	Yes	Yes
Fire #9	Yes	Yes	Yes
Fire #12	Yes	Yes	Yes

Notes:
1. Fire #5 scenario is on an unlooped pipeline on Orchard Lane. This deficiency would be eliminated through additional looping included with the piping extension for the proposed Walnut 10 (Corbett) development.
2. New Well #8 Scenario was modeled with 1,800 gpm in new supply from the proposed Well #8 location.

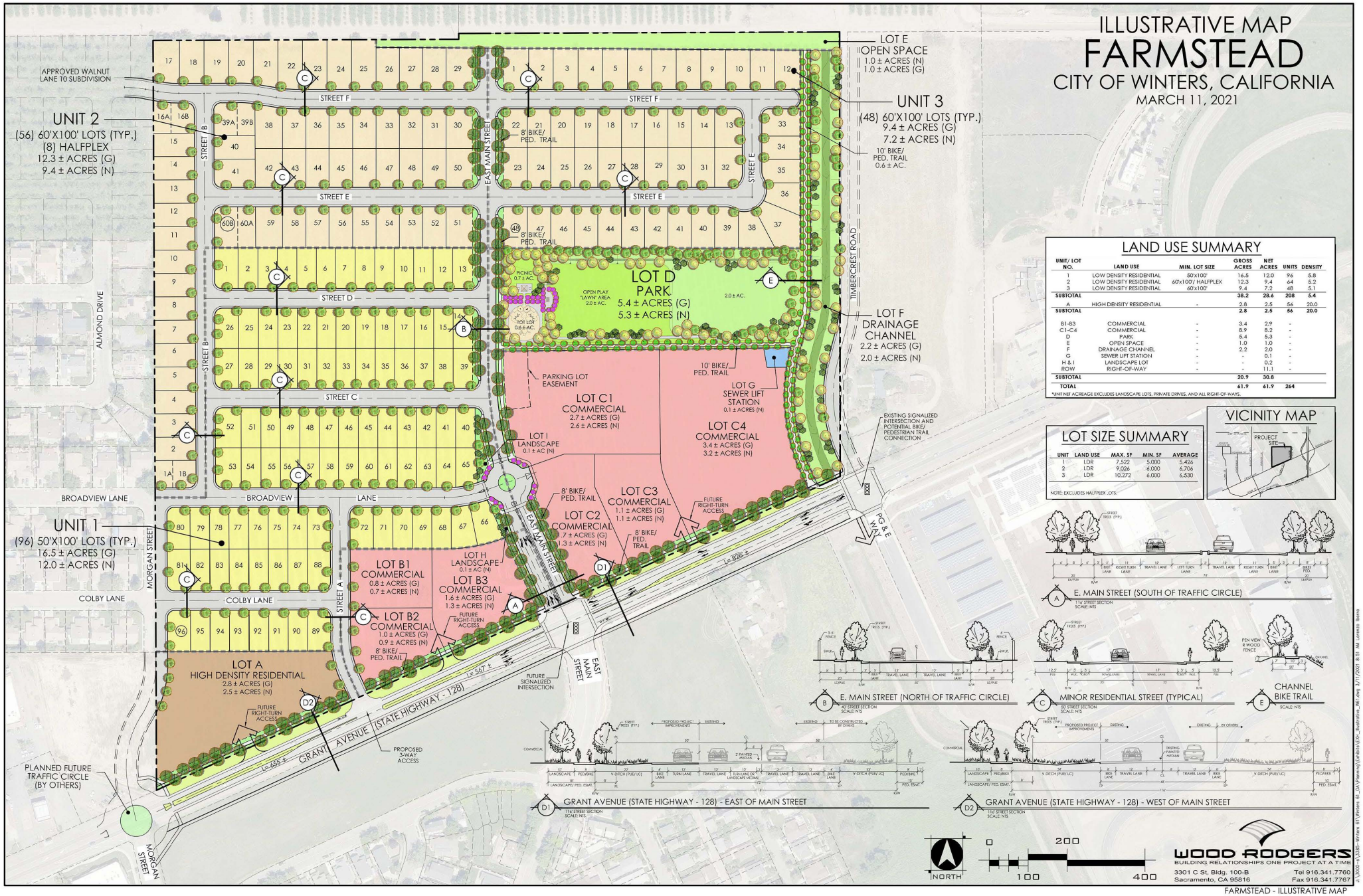
The deficiency under Fire #5 was also identified in the 2006 Master Plan and would be alleviated through the implementation of Project #1 described in the Master Plan, which is anticipated to occur with the Walnut 10 (Corbett) development.

As mentioned previously, the Fire #2C scenario was determined to be an existing deficiency as part of recent model updates. As Fire #2C is the most critical scenario for evaluating system capacity, figures depicting modeled pressures under the Fire #2C scenario are shown in Appendix B.

4. CONCLUSION AND RECOMMENDATION

As shown in Table 4 and Appendix B, while the proposed Skreden development would exacerbate the existing deficiency under the Fire #2C scenario, the deficiency would be eliminated through implementation of the planned new well (Well #8). No additional improvements would be needed, and the size of the new well would not need to change.

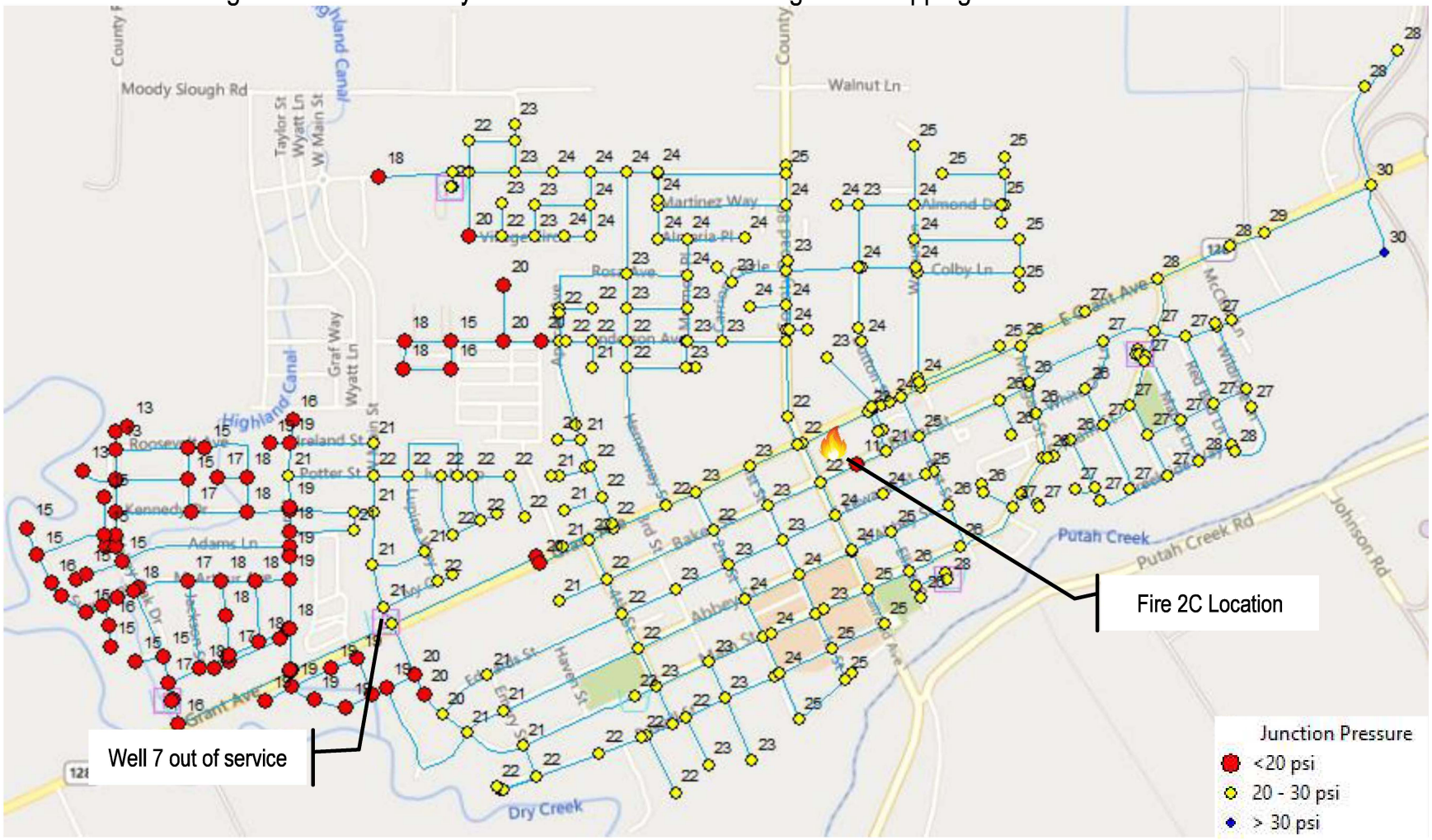
APPENDIX A: SKREDEN FARMSTEAD DEVELOPMENT PLAN



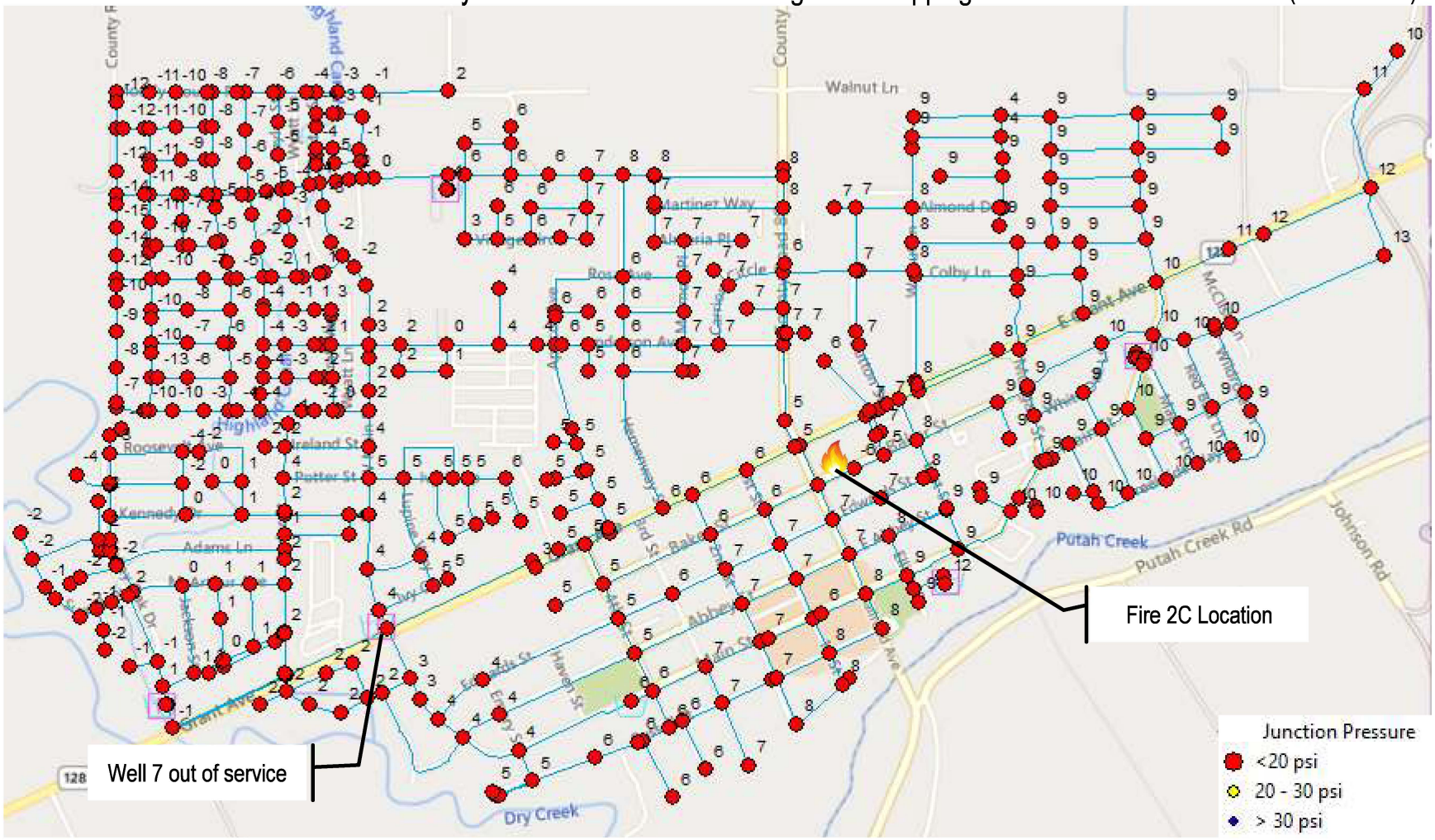
FARMSTEAD - ILLUSTRATIVE MAP

APPENDIX B: MODEL SYSTEM RESULTS

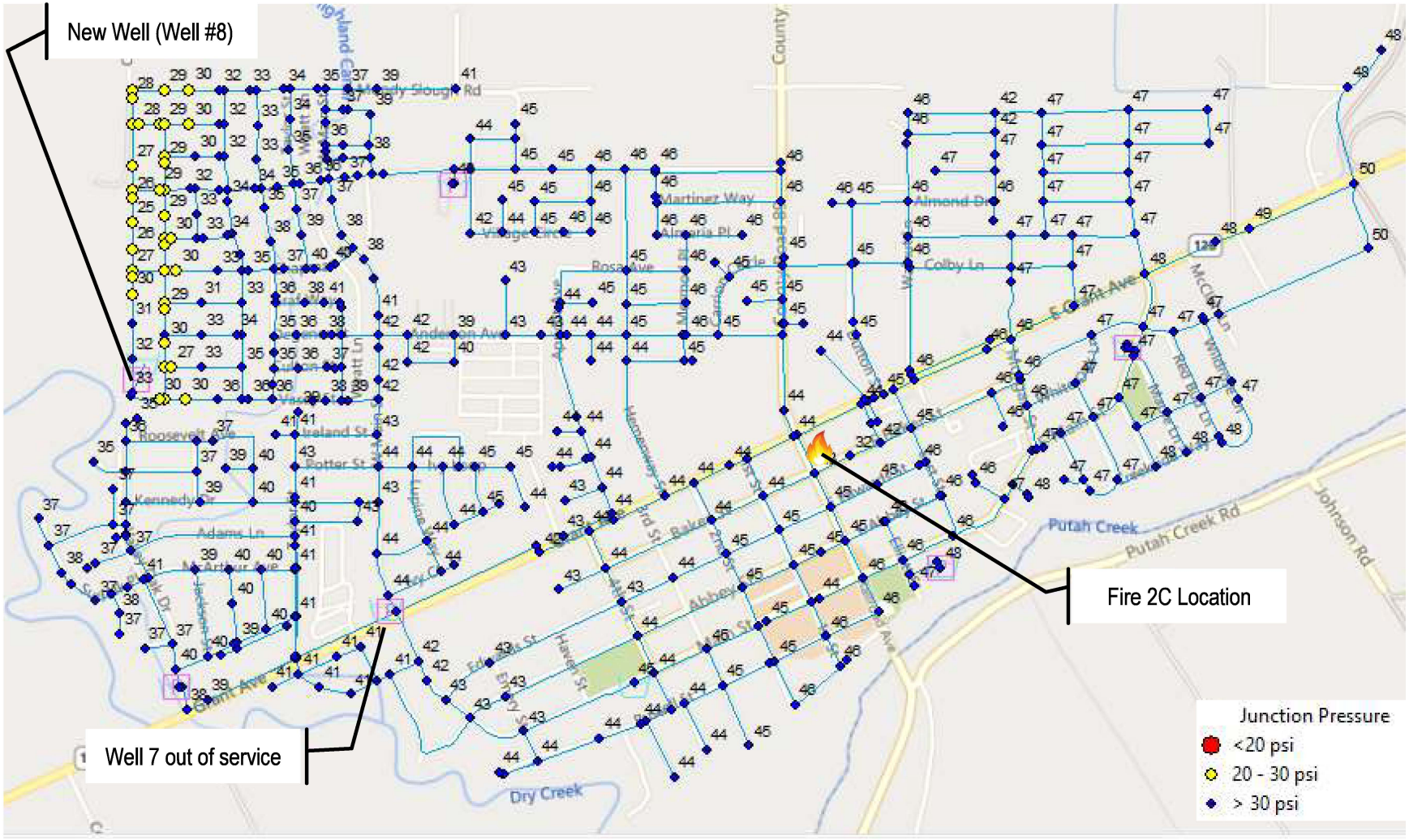
Existing Fire #2C – Max Day with Fire near Mariani Storage and Shipping and Well #7 Out of Service



Skreden Farmstead Fire #2C – Max Day with Fire near Mariani Storage and Shipping and Well #7 Out of Service (No New Well)



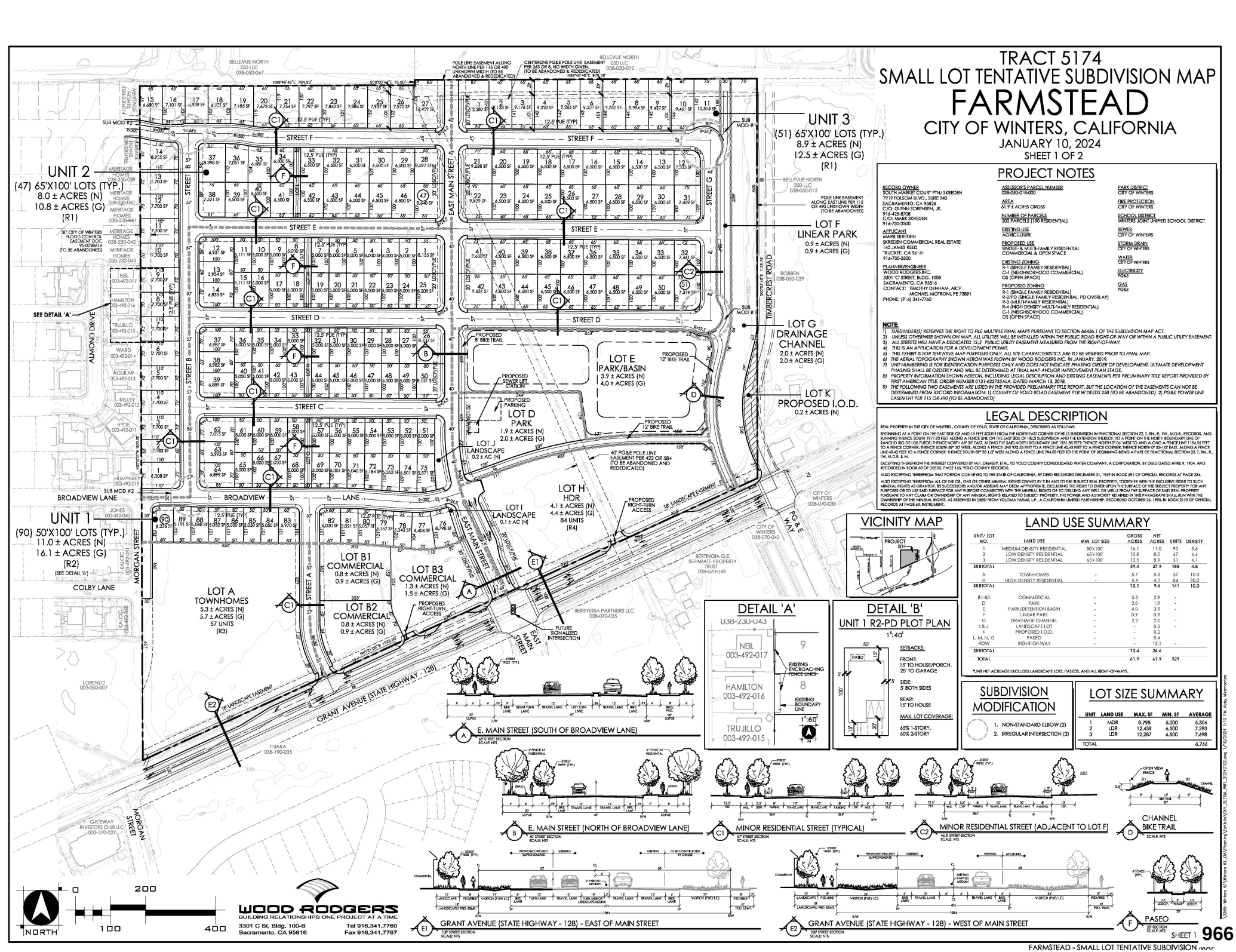
Skreden Farmstead Fire #2C – Max Day with Fire near Mariani Storage and Shipping and Well #7 Out of Service with New Well Constructed



APPENDIX B

FARMSTEAD SMALL LOT TENTATIVE SUBDIVISION MAP
JANUARY 10, 2024

TRACT 5174
SMALL LOT TENTATIVE SUBDIVISION MAP
FARMSTEAD
CITY OF WINTERS, CALIFORNIA
JANUARY 10, 2024
SHEET 1 OF 2


UNIT 2
(47) 65'X100' LOTS (TYP.)
8.0 ± ACRES (N)
10.8 ± ACRES (G)
(R1)
UNIT 1
(90) 50'X100' LOTS (TYP.)
11.0 ± ACRES (N)
16.1 ± ACRES (G)
(R2)
(SEE DETAIL 'B')
UNIT 3
(51) 65'X100' LOTS (TYP.)
8.9 ± ACRES (N)
12.5 ± ACRES (G)
(R1)
LOT A
TOWNHOMES
5.3 ± ACRES (N)
5.7 ± ACRES (G)
57 UNITS
(R3)
LOT B1
COMMERCIAL
0.8 ± ACRES (N)
0.9 ± ACRES (G)
LOT B2
COMMERCIAL
0.8 ± ACRES (N)
0.9 ± ACRES (G)
LOT B3
COMMERCIAL
1.3 ± ACRES (N)
1.5 ± ACRES (G)
LOT D
PARK
1.9 ± ACRES (N)
2.0 ± ACRES (G)
LOT E
PARK/BASIN
3.9 ± ACRES (N)
4.0 ± ACRES (G)
LOT F
LINEAR PARK
0.9 ± ACRES (N)
0.9 ± ACRES (G)
LOT G
DRAINAGE
CHANNEL
2.0 ± ACRES (N)
2.0 ± ACRES (G)
LOT H
HDR
4.1 ± ACRES (N)
4.4 ± ACRES (G)
84 UNITS
(R4)
LOT I
LANDSCAPE
0.1 ± AC (N)
LOT J
LANDSCAPE
0.2 ± AC (N)
LOT K
PROPOSED I.O.D.
0.2 ± ACRES (N)
BROADVIEW LANE
BROADVIEW
LANE
EAST MAIN STREET
MORGAN STREET
ALMOND DRIVE
COLBY LANE
TIMBERCREST ROAD
GRANT AVENUE (STATE HIGHWAY - 128)
STREET A
STREET B
STREET C
STREET D
STREET E
STREET F
STREET G
PROPOSED 8' BIKE TRAIL
PROPOSED 12' BIKE TRAIL
PROPOSED SEWER LIFT STATION
PROPOSED PARKING
PROPOSED RIGHT-TURN ACCESS
FUTURE SIGNALIZED INTERSECTION
18' LANDSCAPE EASEMENT
40' PG&E POLE LINE EASEMENT PER 422 OR 584 (TO BE ABANDONED AND REDEDICATED)
POLE LINE EASEMENT ALONG NORTH LINE PER 115 OR 490 UNKNOWN WIDTH (TO BE ABANDONED & REDEDICATED)
CENTERLINE PG&E POLE LINE EASEMENT PER 265 OR 8; NO WIDTH GIVEN. (TO BE ABANDONED & REDEDICATED)
POLE LINE EASEMENT ALONG EAST LINE PER 115 OR 490 UNKNOWN WIDTH (TO BE ABANDONED)
30' CITY OF WINTERS FLOOD CONTROL EASEMENT DOC 95-0028614 (TO BE ABANDONED)
SEE DETAIL 'A'
SUB MOD #1
SUB MOD #2
BELLEVUE NORTH 250 LLC 038-050-067
BELLEVUE NORTH 250 LLC 038-050-012
ROBBEN 038-050-029
CITY OF WINTERS 038-070-038
CITY OF WINTERS 038-070-042
BERTINOIA G.E. SEPARATE PROPERTY TRUST 038-070-043
BERRYESSA PARTNERS LLC 038-070-035
LORENZO 003-350-007
THIARA 038-190-035
GATEWAY INVESTORS CLUB LLC 003-370-027
MERITAGE HOMES 038-230-039
MERITAGE HOMES 038-230-040
MERITAGE HOMES 038-230-041
MERITAGE HOMES 038-230-042
MERITAGE HOMES 038-230-043
NEIL 003-492-017
HAMILTON 003-492-016
TRUJILLO 003-492-015
WARD 003-492-014
AGUILAR 003-492-013
KELLEY 003-492-012
HYDE 003-492-011
HUMPHREY 003-492-019
JONES 003-492-040
KAUCIC 003-492-041
KAUCIC 003-492-042
N89°46'46"E 784.93'
S00°00'44"E 15.00'
N89°46'46"E 970.06'
N00°00'44"W 1823.80'
R=300'
R=57.5'
R=200'
R=57.5'
T=146'
L=1.64'
L=1.64'
L=1.64

TECHNICAL MEMORANDUM

TO: Alan Mitchell, P.E., City Engineer, City of Winters

PREPARED BY: Ian Jaffe, Woodard & Curran, CA PE No. 85788

REVIEWED BY: Chris van Lienden, Woodard & Curran, CA PE No. 75034
Glenn Hermanson, Woodard & Curran, CA PE No. 46659

DATE: September 20, 2021

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Demands for Skreden Farmstead are listed in **Table 2**. The average day demands were determined from multiplying the water demand factors for new housing in the 2020 Water Demands Assessment by the number of dwelling units or acreage of commercial development or irrigated park.

Table 2: Skreden Farmstead Development Demands

Development Type	# Units / Acreage	Flow Factor (gpd/unit or gpd/acre)	Average Day Demand (gpm)	Max Day Demand (gpm)	Peak Hour Demand (gpm)
Single-Family Residential	200	270	37.5	88.1	132.2
Multi-Family Residential	84	150	8.8	20.6	30.8
Commercial	11.1	2,040	15.7	36.9	55.4
Park	5.5	6,960	25.6	60.2	90.3
Total			**87.6**	**205.8**	**308.7**

3. MODEL RESULTS

The modeled demands discussed above have been incorporated into the model. Results of the model runs are discussed below.

3.1 Model Scenarios

The model was run under the scenarios described in the 2015 Water Supply Analysis Technical Memorandum, summarized in **Table 3**. Each scenario reflects a specific demand condition, in addition to a fire flow at a specific location. As described in the 2020 Water Demands Assessment, additional future developments, assumed to be constructed prior to Skreden Farmstead, were added to the model as part of the updated existing conditions. For each of the model scenarios, demands were adjusted to represent the existing conditions scenario or to include the Skreden Farmstead demands discussed in Section 2.

[1] Illustrative Map, Farmstead, March 11, 2021, Wood Rodgers.

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Fire #2A	J-2409 J-1091	Max Day w/fire near Mariani Storage and Shipping w/Well #2 out of service	20 psi @ hydrant	Baker St. (1,500 gpm) and Edwards St. (1500 gpm)
Fire #2B	J-2409 J-1091	Max Day w/fire near Mariani Storage and Shipping w/Well #6 out of service	20 psi @ hydrant	Baker St. (1,500 gpm) and Edwards St. (1,500 gpm)
Fire #2C	J-2409 J-1091	Max Day w/fire near Mariani Storage and Shipping w/Well #7 out of service	20 psi @ hydrant	Baker St. (1,500 gpm) and Edwards St. (1,500 gpm)
Fire #3	J-2407	Max Day w/fire in western residential area w/Well #4 out of service	20 psi @ hydrant	Jefferson or Mac Arthur St. (1,500 gpm)
Fire #4	J-1207	Max Day w/fire in eastern residential area w/Well #6 out of service	20 psi @ hydrant	Wild Rose Lane (1,500 gpm)
Fire #5	J-2237	Max Day w/fire in northeastern residential area w/Well #6 out of service	20 psi @ hydrant	Orchard Lane (1,500 gpm)
Fire #6	J-2405	Max Day w/fire in northwestern residential area w/Well #5 out of service	20 psi @ hydrant	Village Cr. (1,500 gpm)
Fire #7	J-2417 J-1077	Max Day w/fire near Winters High School w/Well #6 out of service	20 psi @ hydrant	Railroad St. between Grant St. (Route 128) and Anderson Ave. (2,000 gpm[1])
Fire #8	J-2419 J-1243	Max Day w/fire near John Clayton school w/Well #6 out of service	20 psi @ hydrant	Edwards St. between 3rd and 2nd St. (2,000 gpm[1])
Fire #9	J-2095 J-2107	Max Day w/fire near Wagoner School w/Well #4 out of service	20 psi @ hydrant	Grant St. at the intersection of Grant St. and Cemetery Dr. (2,000 gpm[1])
Fire #12	J-2315	Max Day w/fire near future western residential developments w/Well #7 out of service	20 psi @ hydrant	Main St. and Ivy Loop (1,500 gpm)

Notes:

1. The City does not currently have a specific fire flow requirement for schools. A maximum fire flow requirement of 2,000 gpm was assumed from the 2006 Master Plan.

3.2 Model Results

Model results are summarized in **Table 4**. For this analysis, the pressure criteria is met if pressure exceeds 20 psi everywhere in the system.

Table 4: Skreden Development Evaluation

Scenario Name	Pressure Criteria Met with Existing Wells?		Pressure Criteria Met with New Well (Well #8)?[2]
	Existing Conditions	Future Conditions – with Skreden Farmstead	Future Conditions – with Skreden Farmstead
Max Hour	Yes	Yes	Yes
Fire #1A	Yes	Yes	Yes
Fire #2A	Yes	Yes	Yes
Fire #2B	Yes	Yes	Yes
Fire #2C	No	No	Yes
Fire #3	Yes	Yes	Yes
Fire #4	Yes	Yes	Yes
Fire #5[1]	No	No	No
Fire #6	Yes	Yes	Yes
Fire #7	Yes	Yes	Yes
Fire #8	Yes	Yes	Yes
Fire #9	Yes	Yes	Yes
Fire #12	Yes	Yes	Yes

Notes:
1. Fire #5 scenario is on an unlooped pipeline on Orchard Lane. This deficiency would be eliminated through additional looping included with the piping extension for the proposed Walnut 10 (Corbett) development.
2. New Well #8 Scenario was modeled with 1,800 gpm in new supply from the proposed Well #8 location.

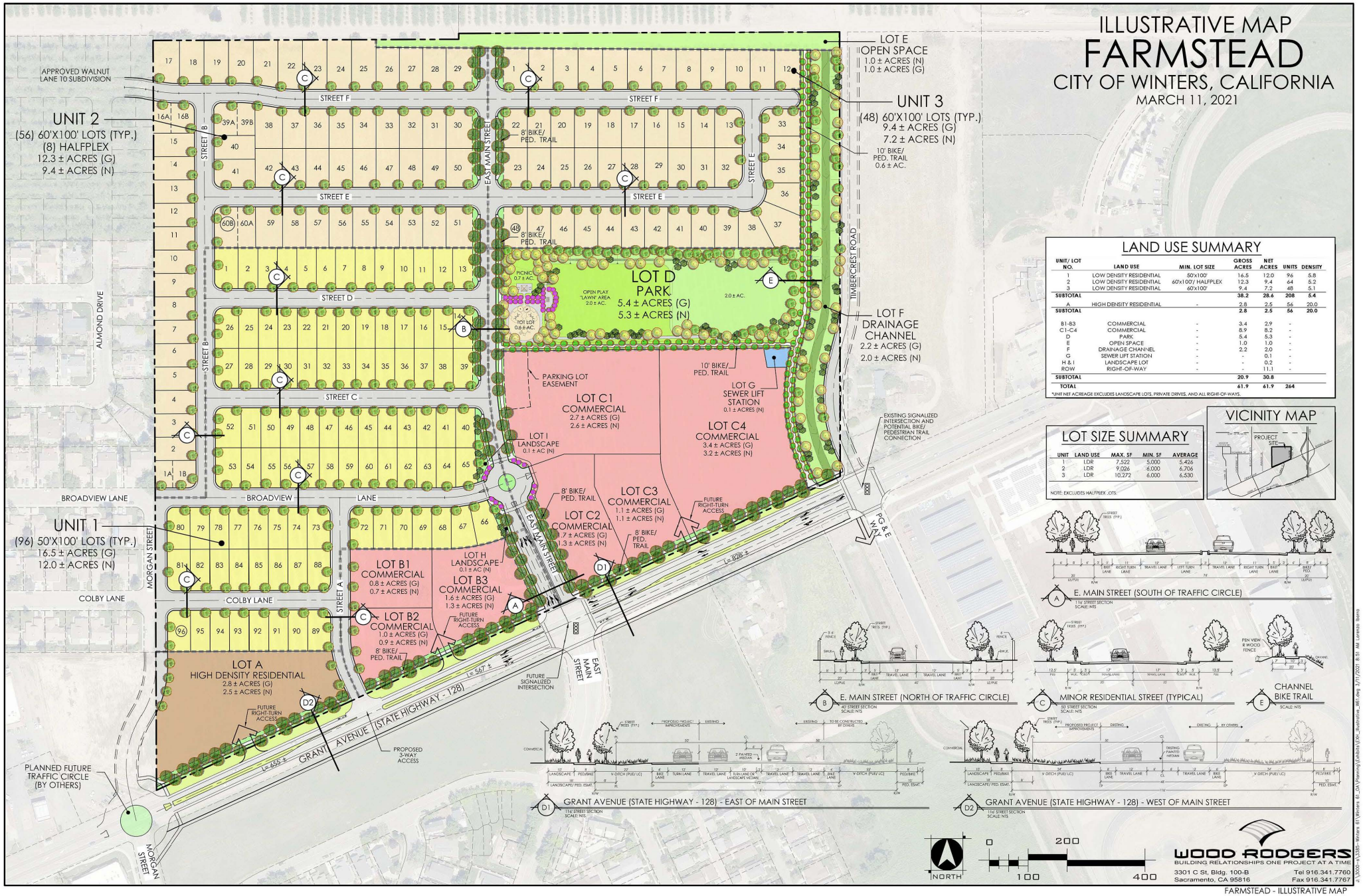
The deficiency under Fire #5 was also identified in the 2006 Master Plan and would be alleviated through the implementation of Project #1 described in the Master Plan, which is anticipated to occur with the Walnut 10 (Corbett) development.

As mentioned previously, the Fire #2C scenario was determined to be an existing deficiency as part of recent model updates. As Fire #2C is the most critical scenario for evaluating system capacity, figures depicting modeled pressures under the Fire #2C scenario are shown in Appendix B.

4. CONCLUSION AND RECOMMENDATION

As shown in Table 4 and Appendix B, while the proposed Skreden development would exacerbate the existing deficiency under the Fire #2C scenario, the deficiency would be eliminated through implementation of the planned new well (Well #8). No additional improvements would be needed, and the size of the new well would not need to change.

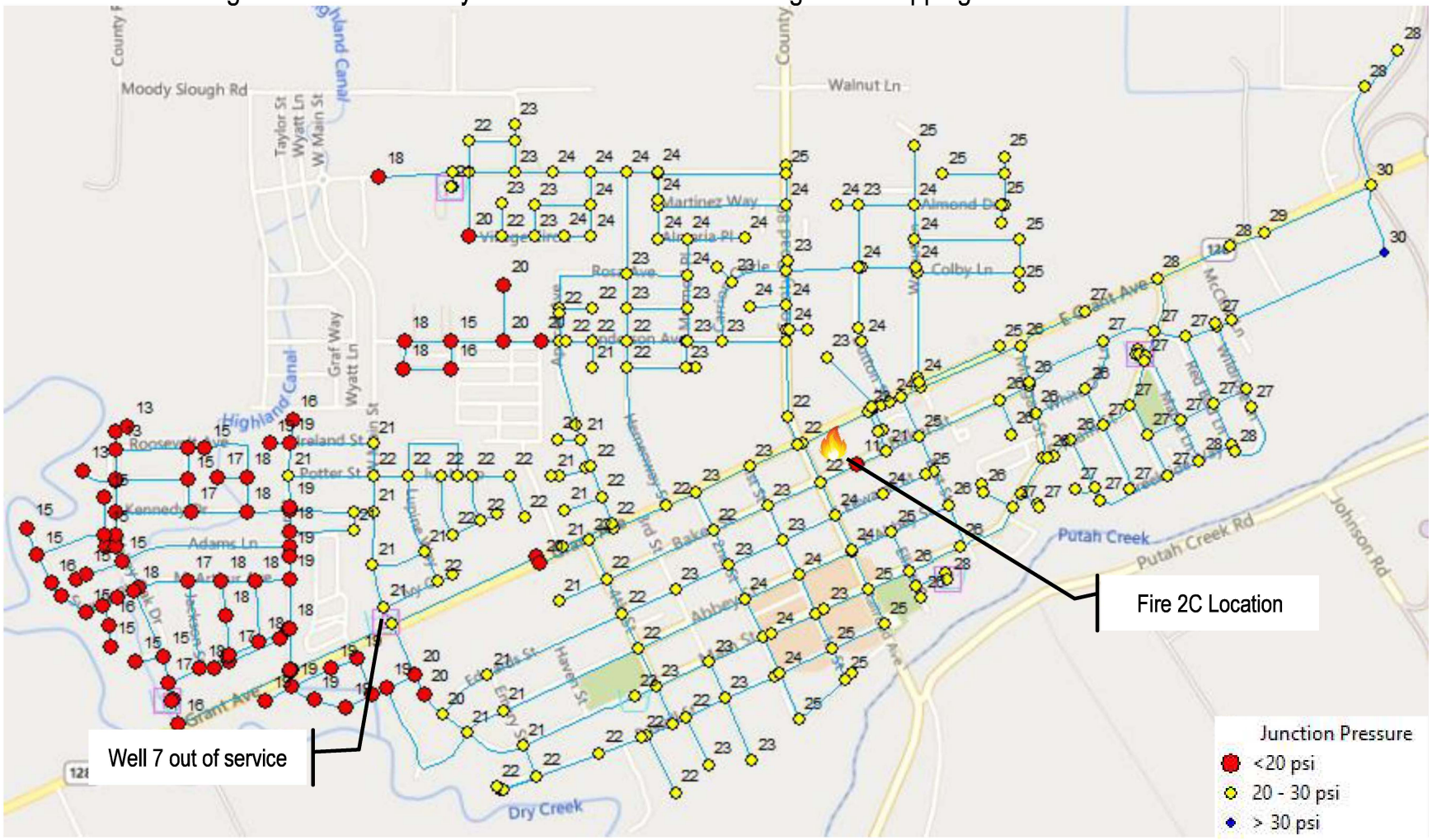
APPENDIX A: SKREDEN FARMSTEAD DEVELOPMENT PLAN



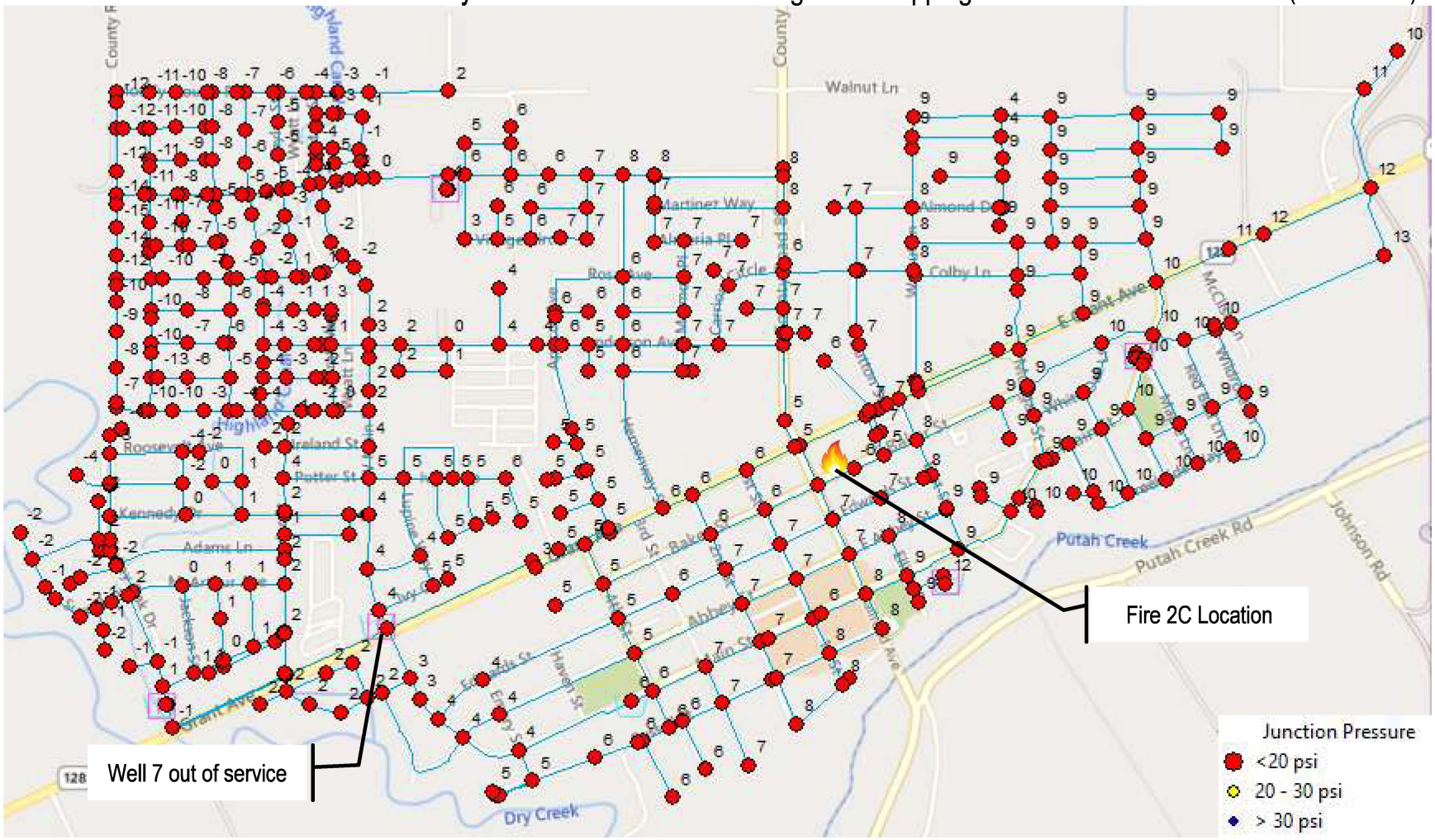
FARMSTEAD - ILLUSTRATIVE MAP

APPENDIX B: MODEL SYSTEM RESULTS

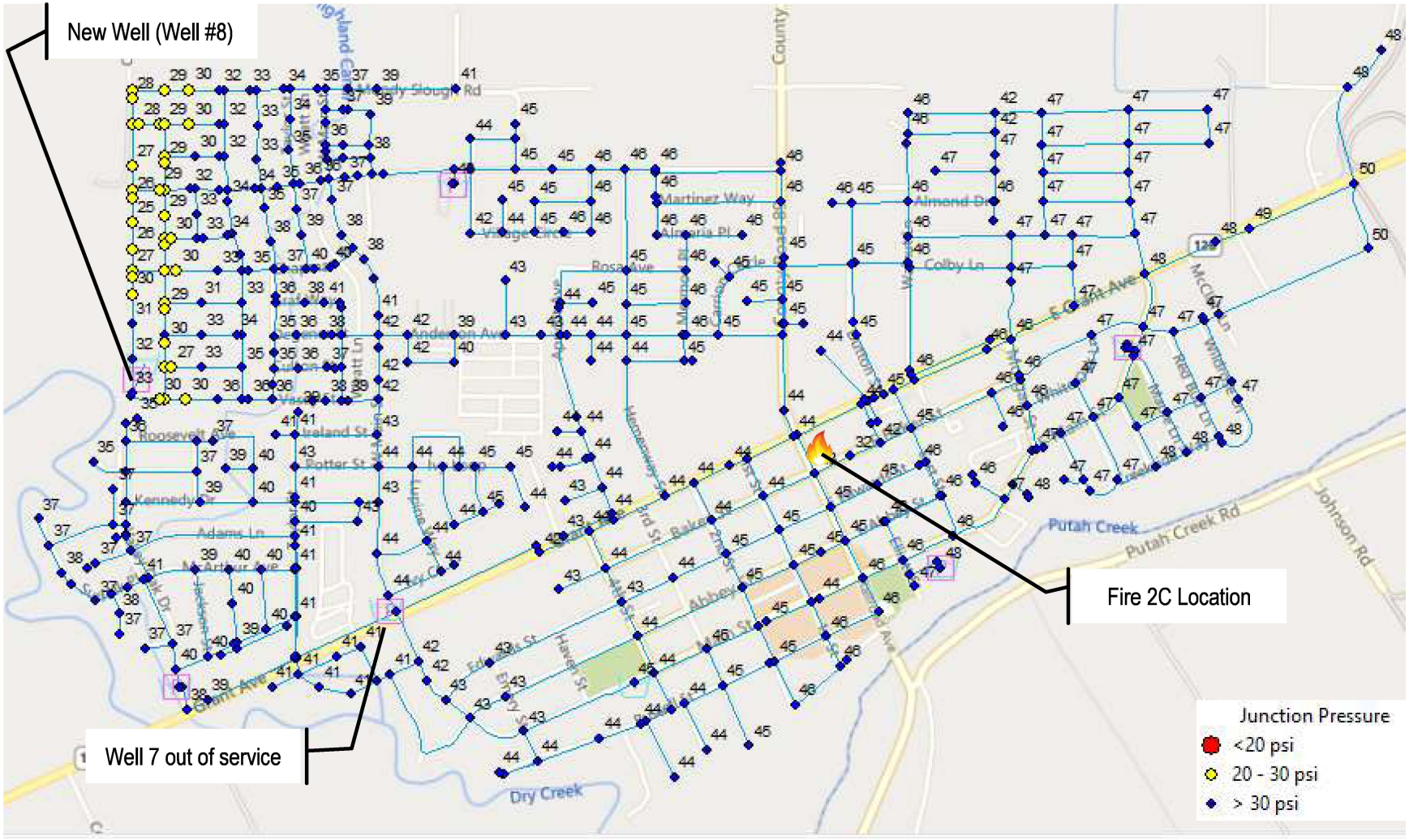
Existing Fire #2C – Max Day with Fire near Mariani Storage and Shipping and Well #7 Out of Service



Skreden Farmstead Fire #2C – Max Day with Fire near Mariani Storage and Shipping and Well #7 Out of Service (No New Well)



Skreden Farmstead Fire #2C – Max Day with Fire near Mariani Storage and Shipping and Well #7 Out of Service with New Well Constructed



Appendix L

Technical Memorandum

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

To:	Megan Buche, PSOMAS, City Engineer David Dowswell, City Interim Planner		
From:	Michael C. Nowlan, PE CFM	**CC:**	Tim Denham, Wood Rodgers Mike Motroni, PE, Wood Rodgers
Date:	June 28, 2024		
Subject:	Farmstead Storm Drainage Assessment		

INTRODUCTION

The Farmstead Project (Project) is located in the City of Winters, near the intersection of East Grant Avenue (State Route 128) and Timber Crest Road as shown on the attached location map (**Figure 1**). The Project is comprised of the Farmstead Development (61 acres of the proposed development) accounting for the existing Walnut Lane 10 Development (10 acres of already constructed development). The proposed Project must include appropriately sized and configured storm drainage facilities that sufficiently handle on-site flooding and prevent the worsening of flooding conditions for surrounding (off-site) properties. This Technical Memorandum (TM) provides documentation for the analysis performed relative to the proposed storm drainage facilities. Stormwater quality issues are addressed in a separate memorandum, which is included with this TM as **Attachment A**. **Figure 2** depicts the proposed project land uses.

CITY STORM DRAINAGE MASTER PLAN

The City of Winters commissioned Wood Rodgers for the development of a Draft Storm Drainage Master Plan (SDMP) for the northeast corner of the City (*Storm Drainage Master Plan - Northeast Area, City of Winters, California, adopted March 2022*). Under the ultimate plan outlined in the SDMP, the Project can drain its runoff to the proposed Putah Creek Diversion Channel without on-site flood detention being required. This on-site runoff from the Project occurs prior to the occurrence of peak flows from the north (flows that originate from overspill at Chickahominy Slough). However, storage is necessary for conveying flows emanating from the north as discussed within this TM. **Figure 3** shows the hydrograph timing of the local and northerly overflows reaching the Putah Creek Diversion Channel. However, the SDMP identifies a channel facility that is aligned through the proposed development for conveying drainage flows emanating from Chickahominy Slough to Putah Creek. This SDMP facility is a regional project benefitting a significant number of other properties within the City's General Plan. The implementation of this diversion channel will require significant time and resources to address all agency/environmental permitting, design, and construction challenges for discharging directly to Putah Creek.

While the Putah Creek Diversion Channel offers a way of conveying on-site generated runoff safely to Putah Creek, the diversion channel alone does not protect the Project from being subjected to adverse flood impacts. As discussed further below, the SDMP also identifies levees, channels, weirs, and detention basins to the north that act together with the Putah Creek Diversion Channel as a drainage system, to protect all

lands within the City's General Plan. It is anticipated that the City will update its drainage impact fees, which will allow a mechanism for sharing the financial burden of constructing these updated ultimate facilities. However, constructing all the ultimate SDMP facilities required to protect the Project at this time is too great for the Project alone to bear. Therefore, Wood Rodgers has evaluated an interim drainage solution which allows the Project to move forward until all ultimate facilities can be fully implemented. The interim solution seeks to construct the minimum combination required of the ultimate facilities and interim facilities, to establish the most cost-effective Project moving forward.

EXISTING FLOOD CONDITIONS

As discussed in the SDMP Update, during the 100-year (design) flood event, the main flood threat to the Project from off-site areas originates in the north. A significant portion of the existing City to the west of the Project drains directly to Putah Creek through existing storm drains. Flooding from the Moody Slough and Chickahominy Slough watersheds cannot efficiently drain eastward across Interstate 505 (I-505). These floodwaters accumulate where Moody Slough crosses under I-505 and pond immediately north of the Project during high-water events. While the master plan only evaluated overflow spilling into the Project area from an un-failed condition under existing conditions, worse case flooding for the Project occurs when uncertified embankments to the north fail. As part of defining the mitigation, the Project must identify which off-site structures will remain uncertified/unimproved after the Project is constructed in order to define the worst-case existing condition from which the Project must be protected.

In an undeveloped condition, the Project area does provide a measure of on-site floodplain storage, which attenuates the combined flow passing through the site and discharges through two existing culverts (a 24-inch pipe and a 36-inch pipe) under Grant Avenue. Once flow has passed south of Grant Avenue, it is conveyed through the Pacific Gas and Electric Company (PG&E) Channel to Putah Creek through an existing California Department of Transportation (Caltrans) facility (described below). The channel in operation today generally aligns with the future ultimate Putah Creek Diversion Channel corridor; however, it differs from the ultimate design in two major ways. First, the PG&E Channel was not constructed to the full depth and width of the Putah Creek Diversion Channel; therefore, it cannot convey the ultimate (proposed) flows of the master plan without modification. Second, the channel does not connect directly south to Putah Creek as shown in the master plan. Instead, the channel turns eastward, running parallel to the right bank of Putah Creek, and drains through a culvert into an existing Caltrans drainage ditch, which ultimately discharges south into Putah Creek. Because of this configuration, the PG&E channel is shallower, narrower, and longer than the ultimate channel alignment. Taken together, this contributes to a smaller flow capacity.

The pre-project condition flooding is shown on **Figure 4**, which includes failure of off-site structures located to the north of the proposed Project boundary. The peak flow entering the Project area from the north is 132 cfs during the 100-year event.

PROPOSED INTERIM FLOOD SOLUTION

The Project must contain and/or convey all off-site runoff entering the Project area under the worst-case condition and must provide sufficient on-site and downstream facilities in order to safely convey proposed conditions flooding, without creating adverse impacts. Wood Rodgers has determined that this can be accomplished with a new flood barrier and overflow weir, an on-site detention basin, and downstream channel/culvert improvements.

Flood Barrier

A flood barrier and weir is proposed across the northern and eastern boundary of the Project that would create a certifiable levee/floodwall structure or embankment protecting development. This would protect the Project area from flows coming from the north as well as failures of any uncertified structure to the north, without worsening flooding on other properties. The weir is necessary in order to continue accepting existing overflow from the north in a safe and controlled manner without increasing upstream water surfaces.

With the design overflow condition from the north established, this flow must be safely conveyed downstream. The Project proposes using a combination of on-site storage with limited downstream conveyance improvements to mitigate the impacts of the overall design 100-year storm event.

Detention Basin

As discussed above, a detention basin is required to hold and convey flows emanating from the project development in a similar way to flows that occur under existing conditions. **Figure 5** depicts the configuration of the detention basin and associated interim facilities. **Figure 6** provides the proposed lot/street configuration as well as preliminary storm drain alignments for the Farmstead portion of the Project. **Figure 7** provides a configuration for the existing Walnut Lane 10 development influences on the Project. A schematic representation of the detention basin area and overall land use are shown on **Figure 2,** which were used as the basis of the proposed conditions analysis. The detention basin is configured to store the 10-year storm event in the eastern portion of the park site, without inundating the central western area benched/raised portion of the park, The central western portion of the basin is inundated during the 100-year storm, and for storm events larger than a 10-year storm.

On-site detention within the proposed park area is contained by a raised access roadway between the park detention pond and the proposed channel, which also provides detention storage under the interim Project configuration. On-site storm drains will enter the composite detention storage at several locations. The largest storm drain serving the majority of the development site will enter the park detention basin at the northwest corner, and will discharge into a swale flowing eastward across the northern boundary of the detention basin. This park detention basin will discharge through a 48-inch pipe into channel improvements identified as the Putah Creek Diversion Channel Corridor. A second storm drain connection will drain the northeast portion of the development directly into the Putah Creek Diversion Channel, given that stormwater quality treatment is handled on each parcel. A water quality treatment approach for the Project is discussed in **Attachment A**. Specific discharge locations for each of the commercial sites have yet to be determined as site layouts will dictate where on-site treatment will occur and where discharge can be most effectively accomplished.

Putah Creek Diversion Channel

In order to receive and convey off-site flows through the proposed interim channel along the eastern boundary of the project, a weir will be constructed at the upstream end of the Putah Creek Diversion Channel as an "inlet" structure. The proposed weir is 25 feet long with a weir crest elevation of 126.6 feet (NAVD 88) with sideslopes at 3 horizontal to 1 vertical (3H:1V) as shown in the cross section on **Figure 8**. The weir will be located at the north end of the proposed Putah Creek Diversion Channel

segment north of Grant Avenue, which is consistent with the alignment of the ultimate SDMP channel configuration.

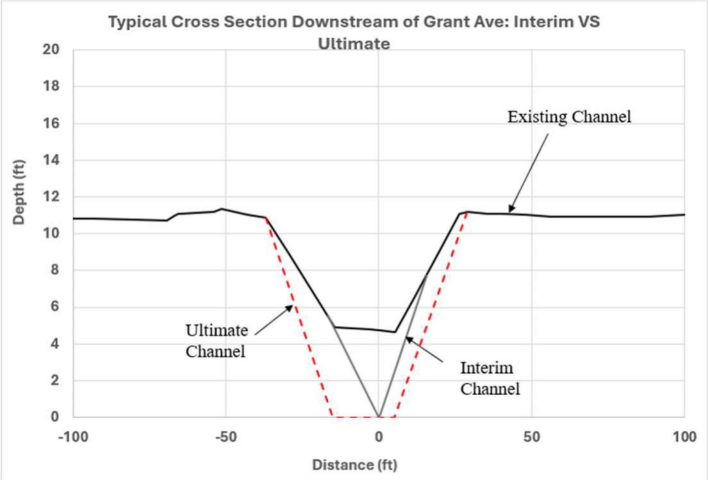
The geometry of the proposed interim drainage channel differs from the ultimate channel configuration in two ways; 1) depth/elevation and, 2) bottom width. First, the originally proposed SDMP channel invert impacts development grading elevations. The originally proposed downstream channel invert affects pipe diameters and the minimum pipe cover requirements onsite, requiring more fill/import. After evaluating preliminary site grading, it is recommended that the ultimate drainage channel be lowered to one foot below the original SDMP channel profile. Given that nothing has been constructed yet, the future cost associated with lowering the channel invert, ultimate Grant Avenue culverts, and the outfall structure by one foot is minimal, compared to the net benefit of reducing/eliminating soil import to the Project. To achieve the channel lowering by one foot, Wood Rodgers recommends projecting the bank slopes deeper within the original 25-foot bottom width, reducing the final bottom width to 19 feet. In this manner, the channel can be deepened without being widened. The overall top width of the channel corridor remains unchanged from the original SDMP estimates, achieving the improved depth by narrowing the bottom width of the channel, while also improving hydraulic performance. The typical cross section shown below in Detail 1 depicts the channel configurations upstream of Grant Avenue.



Detail 1

This revised ultimate channel geometry proposed north of Grant Avenue acts as conveyance for the Project. After discussions with the City, it was determined that, since the interim Project requires modification of the existing culverts under Grant Avenue, the ultimate Grant Avenue culverts might be constructed. Under the draft of the SDMP, the Grant Avenue crossing is a double 8-foot by 7-foot box culvert. After evaluating the utilities crossings in the area, it is proposed to construct a double 12-foot by 5-foot box culvert, providing conveyance capacity equivalent to the ultimate culvert with a lower soffit elevation. Upon further evaluation, the interim condition does not require the full capacity of the ultimate crossing to be constructed, but only 25 percent of the ultimate capacity. Therefore, a single 6-foot by 5-foot culvert is proposed for draining interim conditions flooding. Downstream of Grant Avenue (shown on Detail 2 below), the ultimate channel width does not need

to be constructed under interim conditions. However, the revised ultimate channel invert (depth) does need to be constructed, in order to effectively drain all waters from the detention basin, and optimize onsite grading as discussed above. Wood Rodgers proposes modifying the current PG&E channel by excavating the bottom to a lower elevation with a V-ditch configuration. The lowering of this channel segment (without widening) will require the construction of a new interim culvert connection between the lowered PG&E channel into the existing Caltrans Ditch, while maintaining the existing culverts at this same location. Wood Rodgers has determined that an additional culvert with a 36-inch diameter is necessary to convey the required 100-year flooding discharge into the Caltrans Ditch.



Detail 2

The only potential constraints to lowering the ultimate channel profile are three existing utilities (an existing gravity sewer main, an existing sewer force main, and a water main) crossing under the PG&E channel alignment along the projected East Baker Street alignment. From record drawing information provided by the City, the crown of the highest existing pipeline sits approximately 1.5 feet below the proposed lowered channel profile. Lowering of the channel invert could make it necessary to provide a protective cover over the pipelines within the channel.

HYDRAULIC RESULTS

The interim configuration and preliminary grading and drainage layouts produce peak flow and water surface elevations that are contained and will not adversely affect upstream, adjacent, or downstream properties. Locations where peak flow and water surface elevations are reported for both pre-project and post-project conditions are shown on **Figure 9**. **Table 1** (below) provides a summary of 100-year peak flows and water surface elevations at these identified locations.

	Pre-project Condition		Interim Condition	
	Stage (ft, NAVD88)	Peak Flow (cfs)	Stage (ft, NAVD88)	Peak Flow (cfs)
Location 1	127.4	132	127.2	187
Location 2	127.4	78	127.1	236
Location 3	124.8	73	126.2	233
Location 4	124.7	63	125.9	221

FUTURE SDMP INTEGRATION

The Farmstead development projects must successfully drain as part of the ultimate SDMP drainage system, as well as during interim developed conditions. The transition from interim conditions to SDMP buildout conditions will not require any reconfiguration of the Farmstead Project on-site. A new (ultimate) weir structure will need to be constructed to the north of the Project, in accordance with the SDMP, to replace the interim conditions weir defined in this report and the ultimate channel cross section and Grant Avenue crossing. The interim flood barrier can remain in place across the north boundary. Off-site, downstream channel widening and the proposed SDMP Putah Creek outfall structure will need to be constructed. The ultimate conditions 100-year water surface elevations are contained within the channel and are compared to interim conditions in **Table 2**.

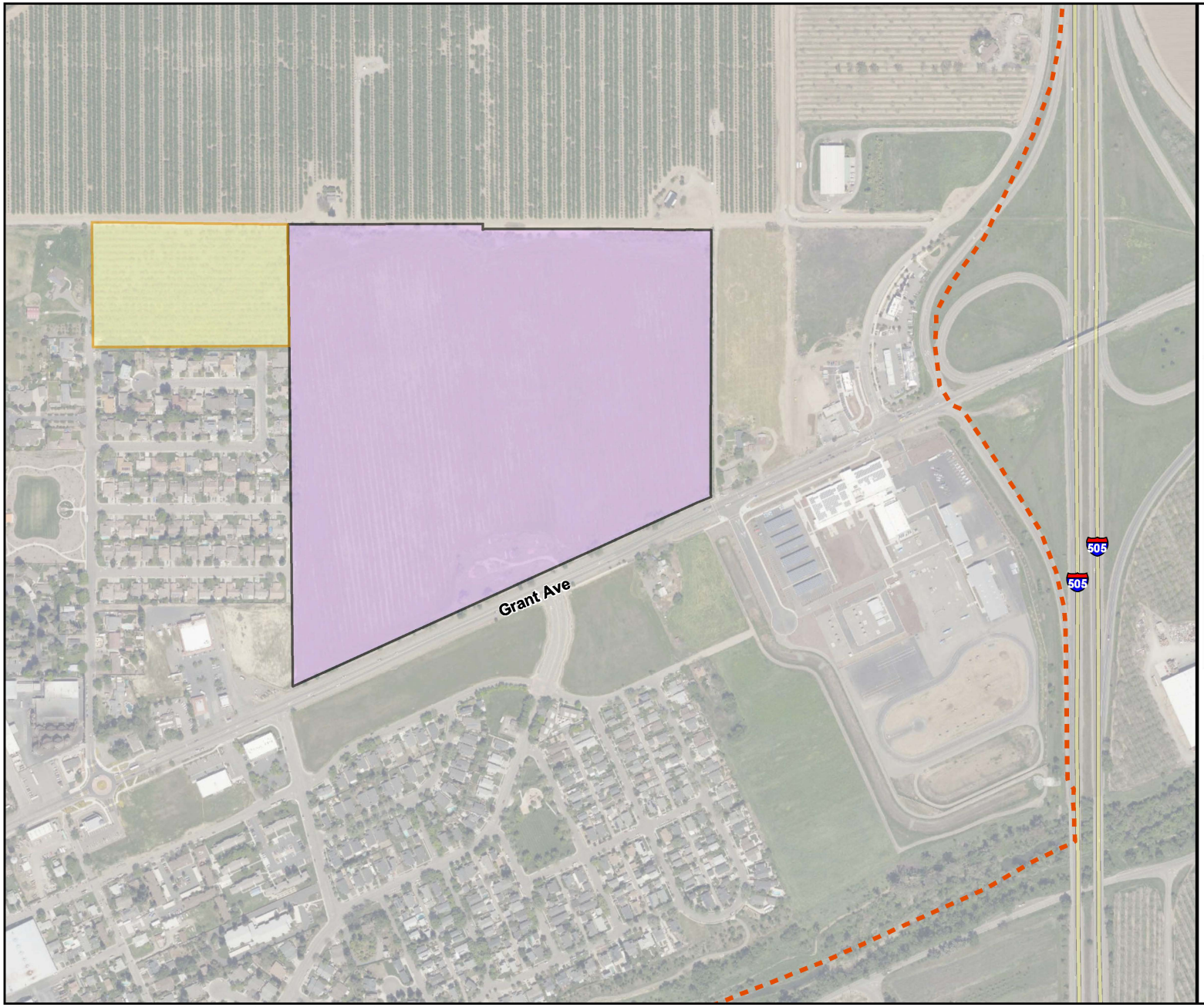
Table 2

	Interim Condition	Ultimate Condition
	Stage (ft, NAVD88)	Stage (ft, NAVD88)
Location 1	127.2	124.1
Location 2	127.1	123.2
Location 3	126.2	122.9
Location 4	125.9	--

CONCLUSIONS AND RECOMMENDATIONS

The Project, as configured, safely addresses storm drainage impacts for the proposed Farmstead and existing Walnut Lane 10 subdivisions, consistent with the City's SDMP efforts. Before the construction of these

projects can occur, drainage conditions (existing and future) must be submitted and reviewed by all state and federal agencies dealing with development approval. A submittal to the Federal Emergency Management Agency (FEMA) can be made to establish the pre-project flooding conditions and residual floodplain in the vicinity of the Project. The detailed hydrologic and hydraulic assessments that have been performed will also be provided to Caltrans in order to secure an encroachment permit to proceed with physical changes affecting the drainage of state facilities. After initial reviews and approvals are made, design improvement plans and water quality permitting can be prepared to ensure that on-site measures are fully identified and validated by the City and by state agencies.



LOCATION MAP

WINTERS 71 DRAINAGE ANALYSIS

WINTERS, YOLO COUNTY, CALIFORNIA

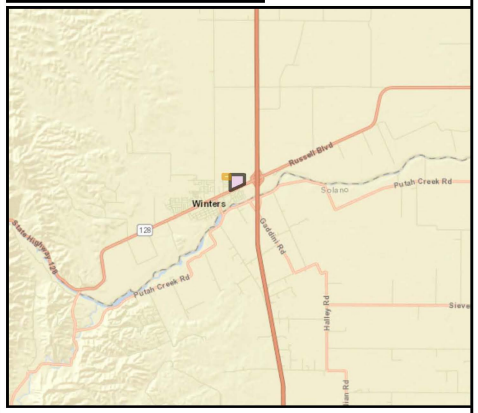
JULY, 2019

NORTH

0 200 400

FEET

City General Plan Boundary
Walnut Lane 10
Farmstead
Interstate



PRELIMINARY

WOOD RODGERS

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FIGURE 1



JANUARY 2024 LAND USE
FARMSTEAD SUBDIVISION
WINTERS, CA
JUNE 2024

LDR	COMM
MDR	PARK
HDR	PARK/BASIN
TOWNHOMES	OTHER

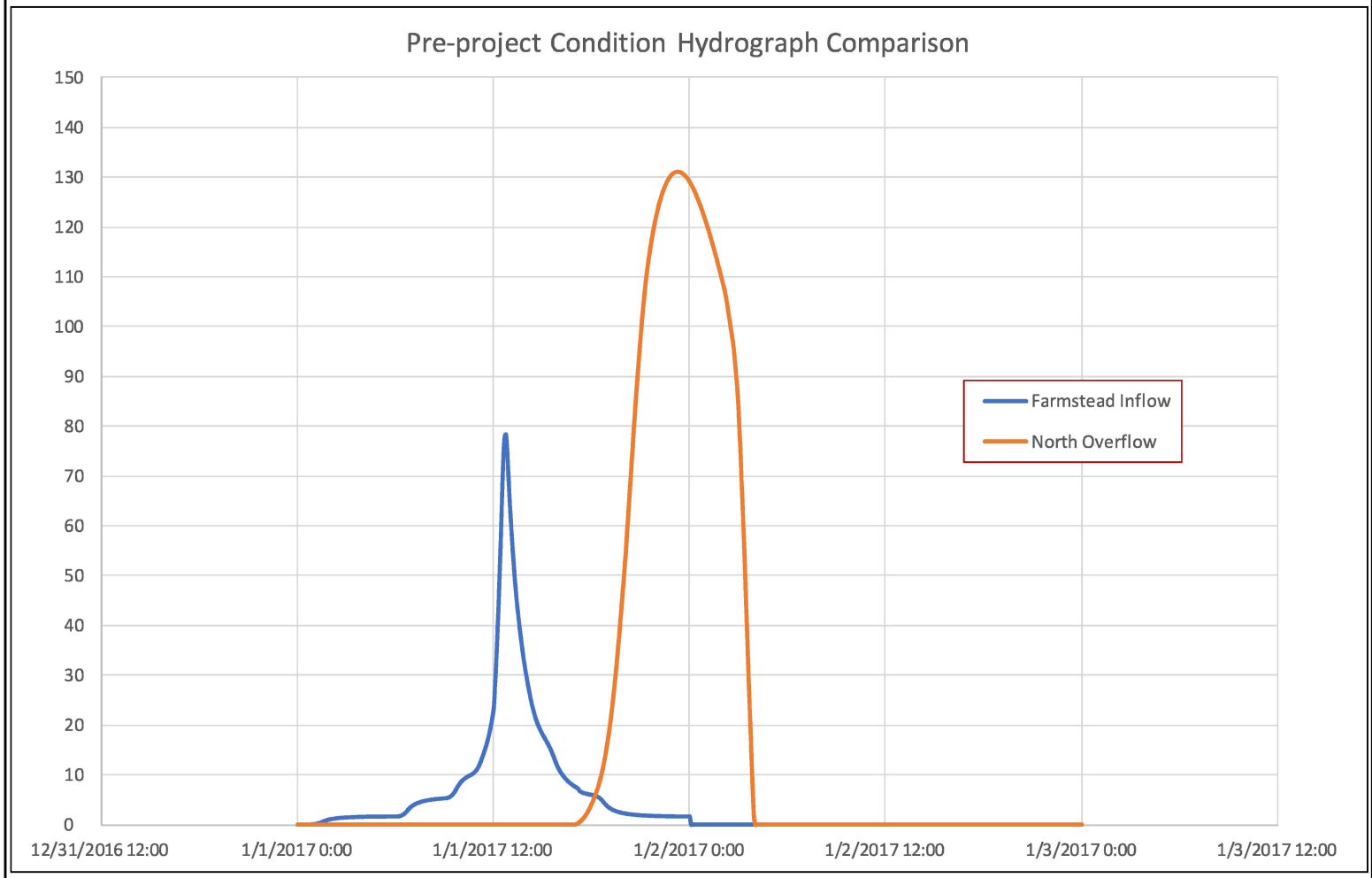
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WOOD RODGERS

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FIGURE 2



PRE-PROJECT HYDROGRAPH COMPARISON

FARMSTEAD DRAINAGE ANALYSIS

WINTERS, YOLO COUNTY, CALIFORNIA

JUNE, 2024

NORTH

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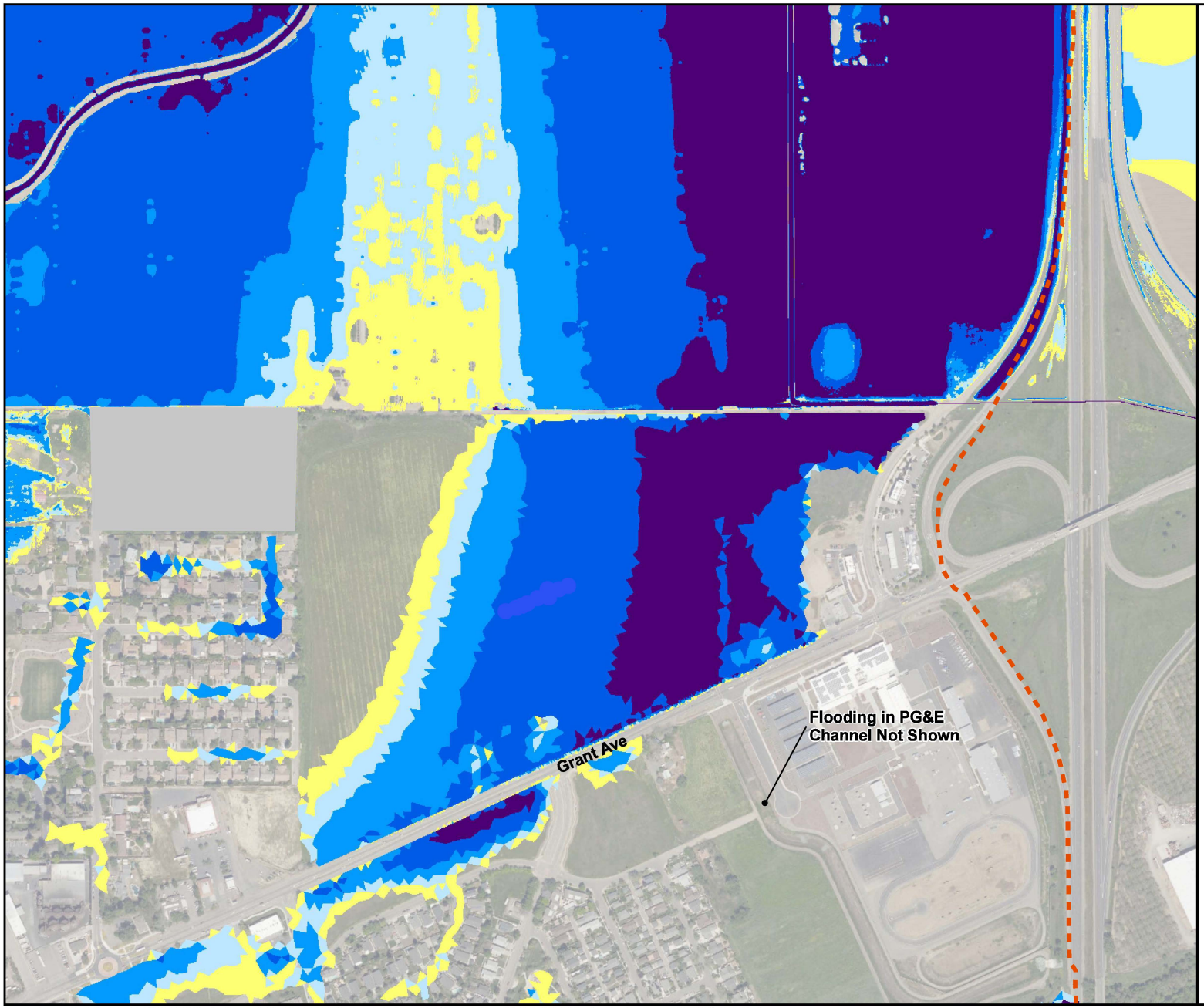
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PRELIMINARY

WOOD RODGERS

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FIGURE 3



EXISTING CONDITION FLOODING - 100-YEAR

FARMSTEAD DRAINAGE ANALYSIS

WINTERS, YOLO COUNTY, CALIFORNIA

JUNE 2024

NORTH

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FEET

City General Plan Boundary

100-Year Flooding Depth (ft)

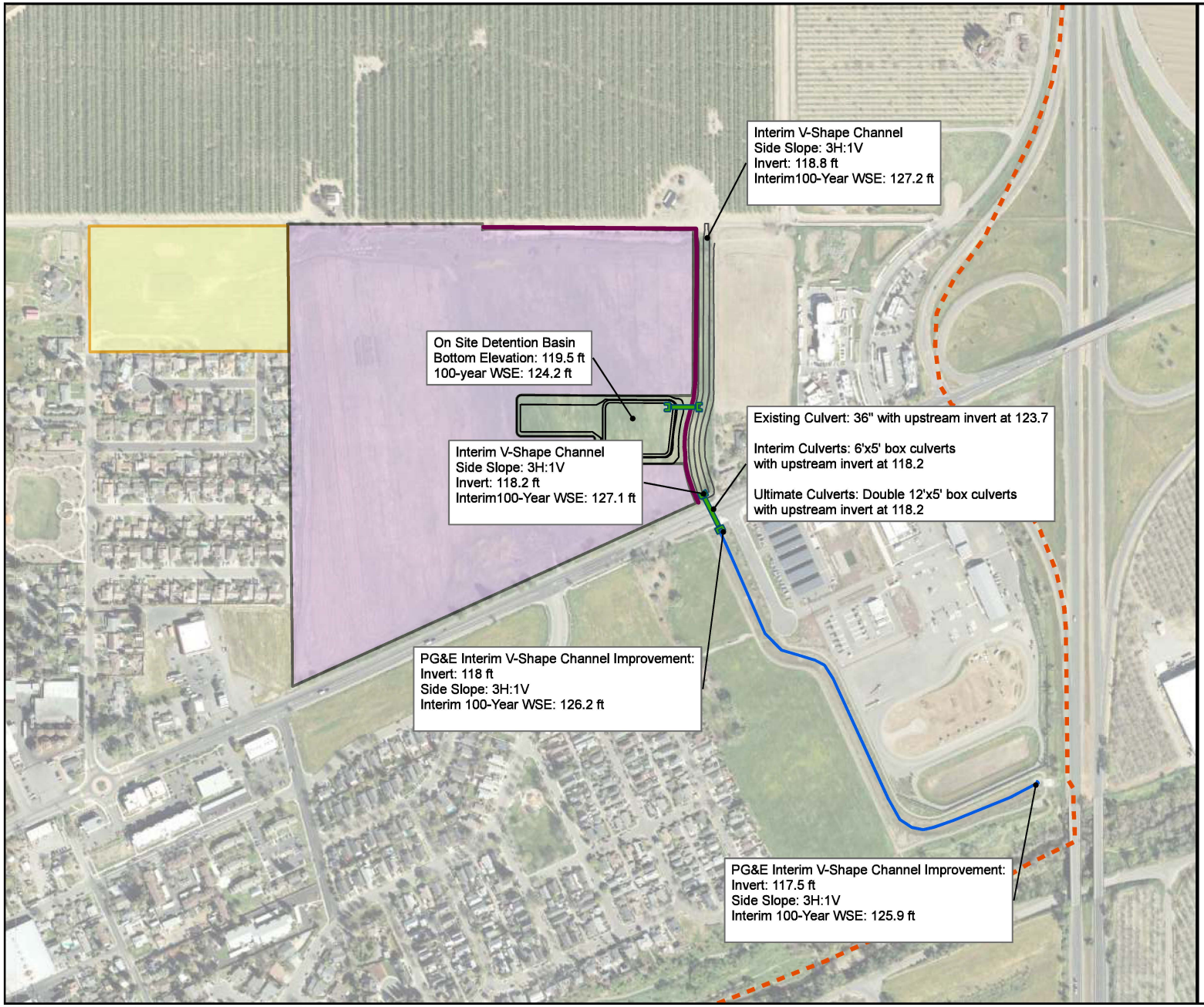
- 0 - 3"
- 3" - 6"
- 6" - 1'
- 1' - 2'
- >2'

PRELIMINARY

WOOD RODGERS

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FIGURE 4



PROPOSED DRAINAGE FACILITY LAYOUT
FARMSTEAD DRAINAGE ANALYSIS
WINTERS, YOLO COUNTY, CALIFORNIA
JUNE 2024

NORTH

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FEET

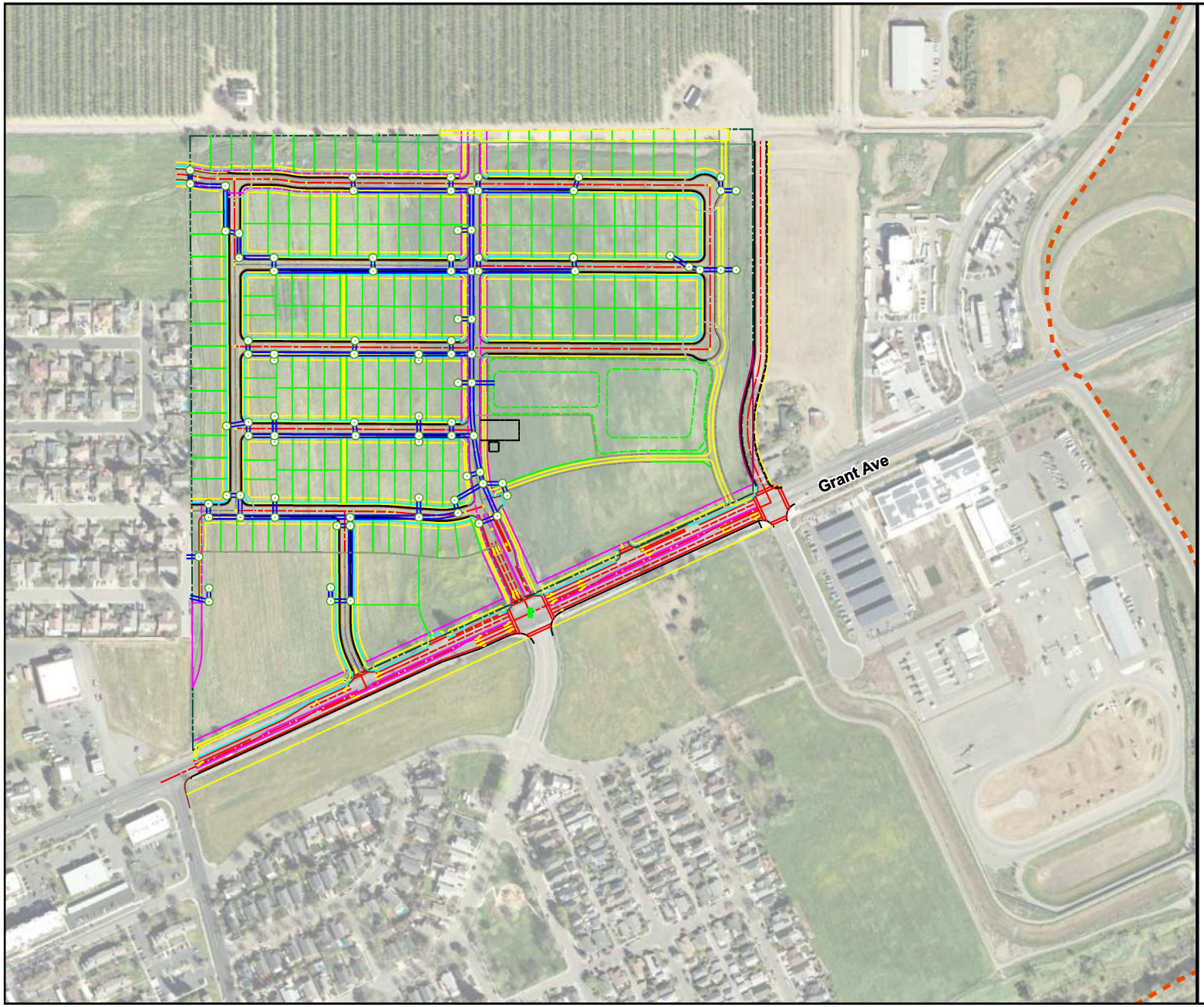
- Flood Berm
- PG&E Interim Channel Improvement
- Walnut Lane 10
- City General Plan Boundary
- Detention
- Farmstead
- Proposed Culvert

PRELIMINARY

WOOD RODGERS

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FIGURE 5



FARMSTEAD PRELIMINARY ON-SITE LAYOUT

FARMSTEAD DRAINAGE ANALYSIS

WINTERS, YOLO COUNTY, CALIFORNIA

JUNE 2024

NORTH

0 150 300

FEET

City General Plan Area

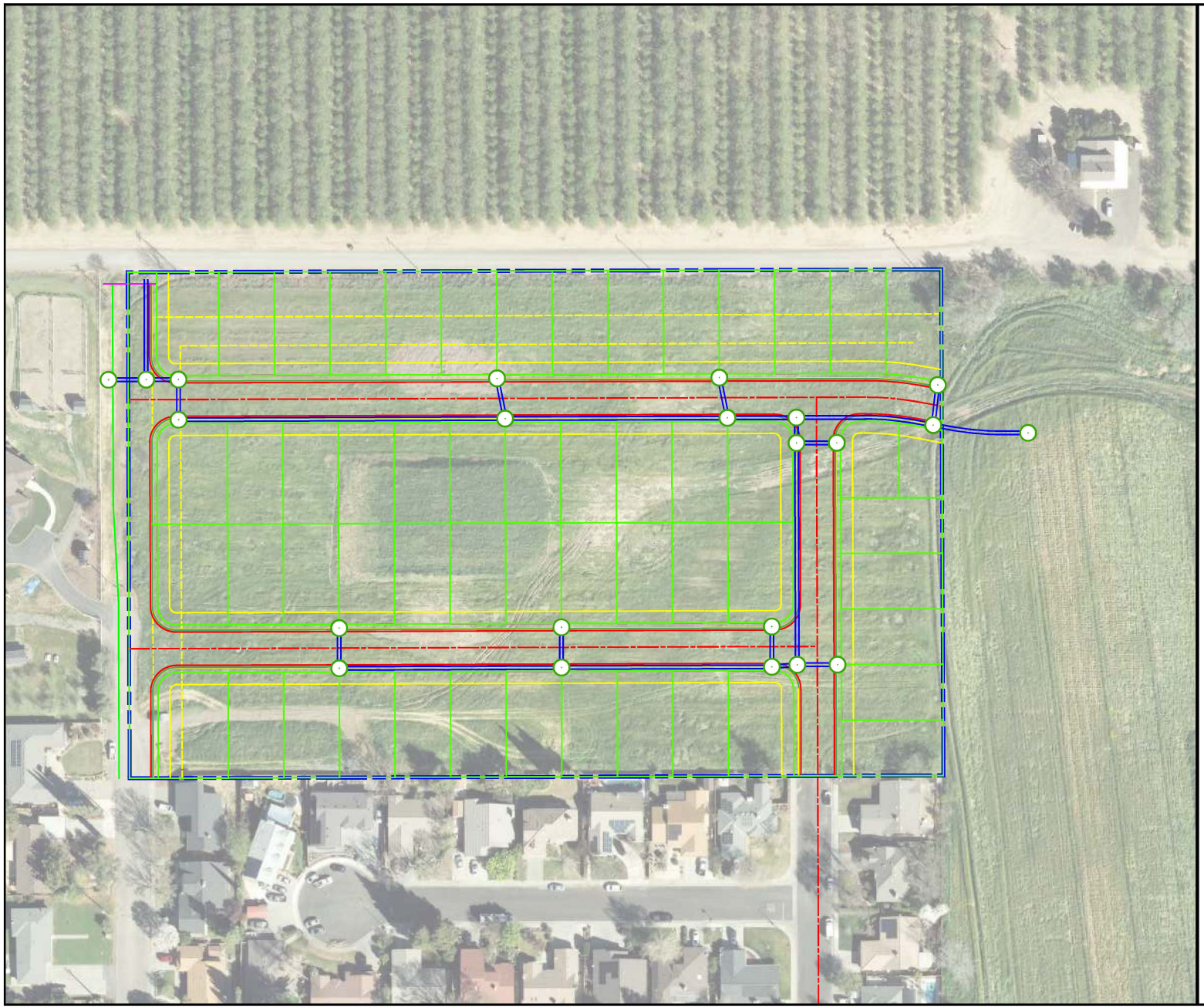
Drainage Pipe

PRELIMINARY

WOOD RODGERS

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FIGURE 6



WALNUT LANE 10 CONSTRUCTED LAYOUT
FARMSTEAD DRAINAGE ANALYSIS
WINTERS, YOLO COUNTY, CALIFORNIA
JUNE 2024

NORTH

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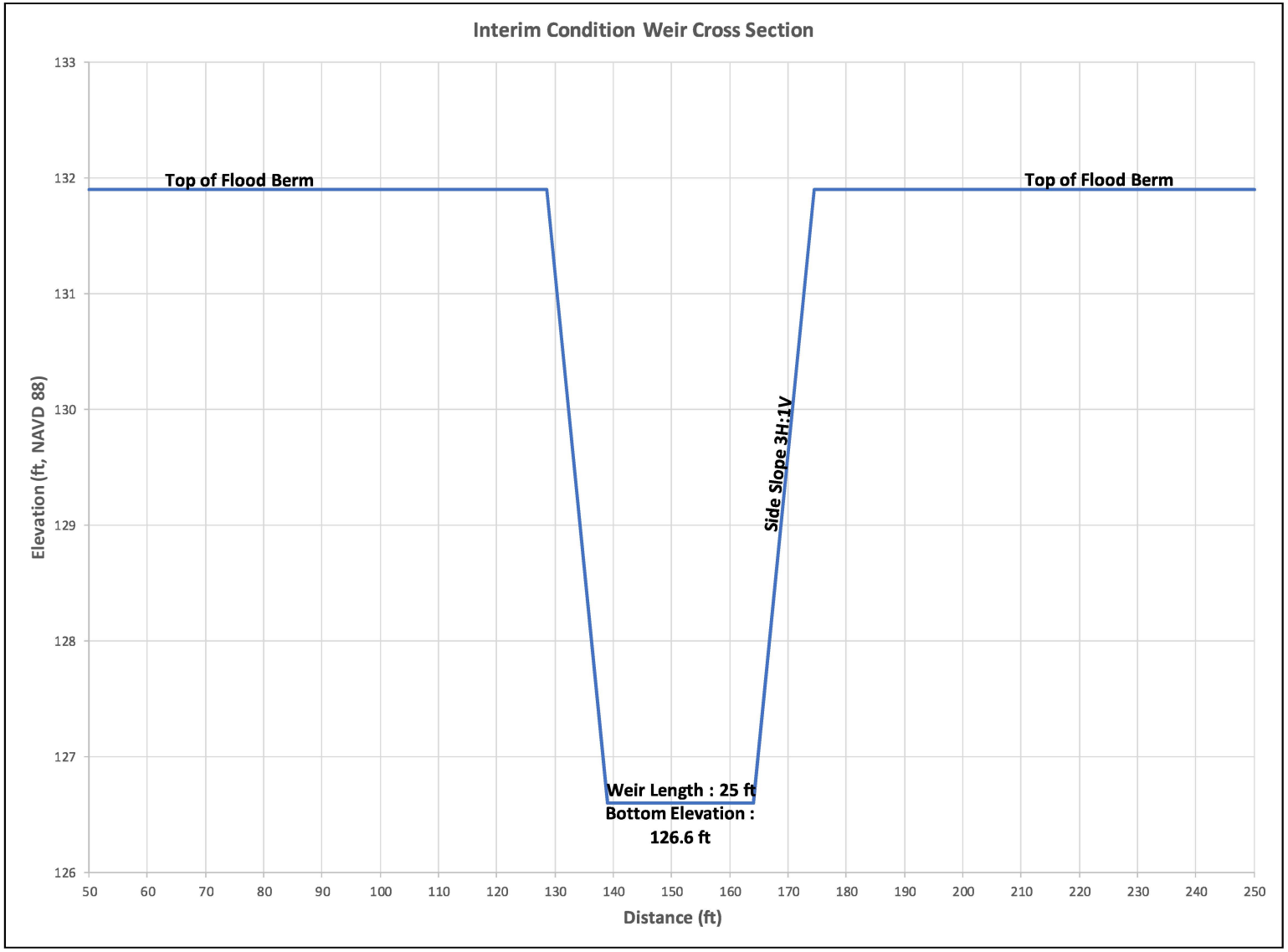
Drainage Pipe

PRELIMINARY

WOOD RODGERS

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FIGURE 7



WEIR CROSS SECTION

WINTERS 71 DRAINAGE ANALYSIS

WINTERS, YOLO COUNTY, CALIFORNIA

JULY, 2019

NORTH

0 200 400

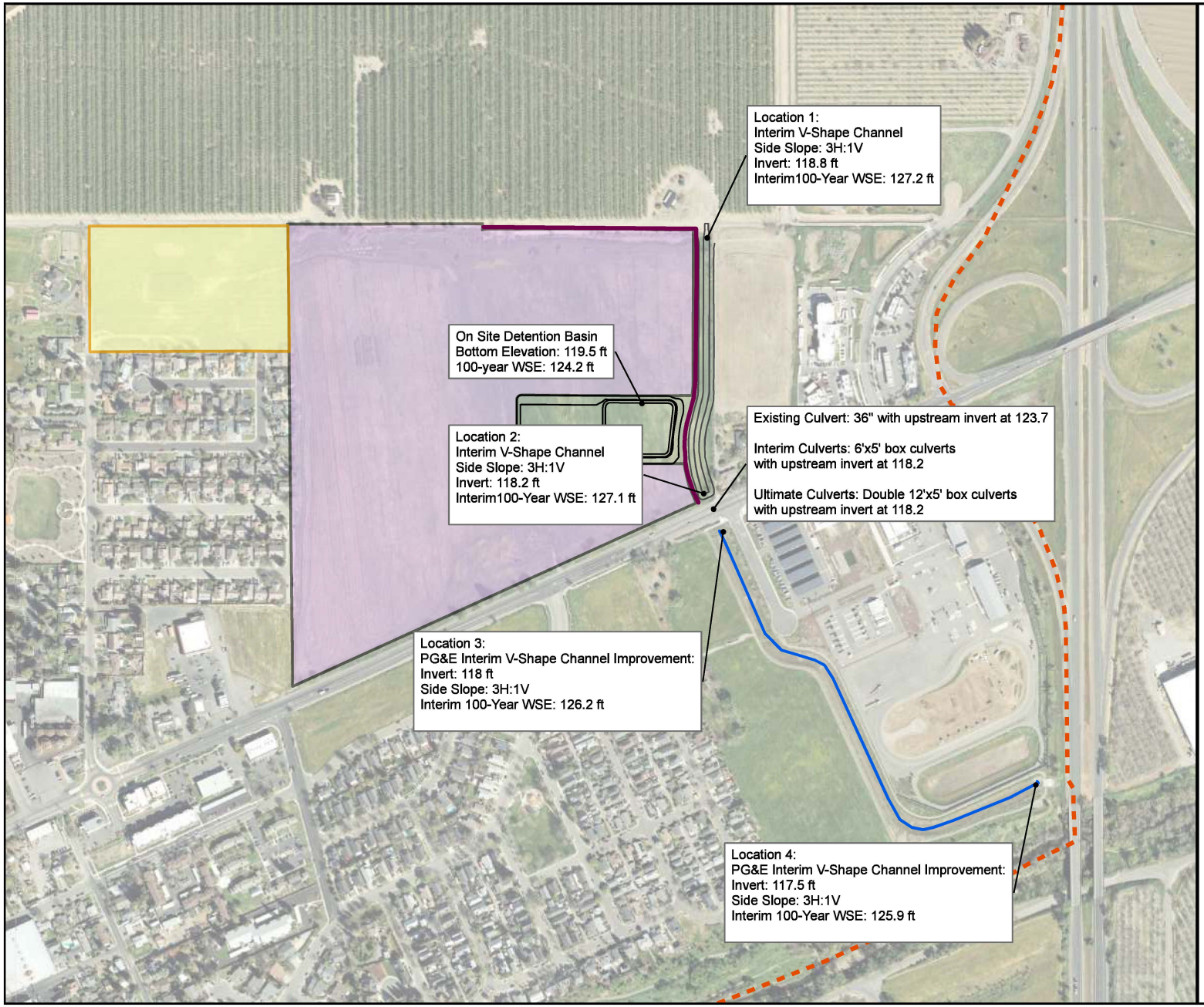
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PRELIMINARY

WOOD RODGERS

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FIGURE 8



FLOW/STAGE LOCATIONS

WINTERS 71 DRAINAGE ANALYSIS

WINTERS, YOLO COUNTY, CALIFORNIA

JUNE 2024

NORTH

0 200 400

FEET

- Flood Berm
- PG&E Interim Channel Improvement
- Walnut Lane 10
- Farmstead
- City General Plan Boundary
- Detention

PRELIMINARY

WOOD RODGERS

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FIGURE 9

ATTACHMENT A

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

TECHNICAL MEMORANDUM

To: Alan Mitchell, PE, Ponticello Enterprises

From: Michael Towne, PE

Date: July 12, 2019

Subject: Walnut 10/ Farmstead Water Quality Design Approach
APNs: 038-050-019, 038-050-018
Yolo County Subdivision #s: 5173, 5174

This memorandum addresses the design approaches to be taken by the builder(s) of the subject subdivisions to comply with the State Storm Water Resources Control Board's General Construction Permit Order 2009-0009-DWQ (amended by 2010-0014-DWQ & 2012-0006-DWQ). The project is located outside of a jurisdiction covered by a Municipal Separate Storm Sewer System (MS4) Permit and is therefore subject to the State's requirements.

The Post-Construction Water Balance Calculator (**Figure 1**) was used as a basis for determining water quality compliance for the General Construction Permit. Water quality treatment will need to be achieved by a variety of measures that address the flow from the 85th percentile, 24 hour storm event. Tree planting should be on the order of two trees per lot on average. This is a combined 262 lot subdivision which would equate to 524 trees (some of these will be in the park). Home construction should include the use of roof gutter downspouts that drain less than 600 square feet of roof to a sheet-flow, landscaped area.

These measures alone meet the minimum requirements of the Water Balance Calculator and therefore no additional water quality measures are necessary. An additional water quality feature will be a drain outfall that runs through a vegetated swale. The swale is unable to meet the design guidelines of the California Stormwater BMP Handbook due to the size of the area being drained and it therefore cannot be included in the measures used in the Water Balance Calculator. The normal depth in the swale is approximately 1.6' which is above the 4" threshold. However, the 400+' long swale will vastly exceed the required length for contact time. **Figure 2** shows the calculations associated with this swale.

The remaining developable acreage of the Farmstead site consists of commercial parcels. Theses parcels will be subject to water quality treatment through on-site low impact development (LID) measures before discharging into the storm drainage conveyance system. Design of the commercial sites and their LID features are not intended to be addressed with this memo.

Post-Construction Water Balance Calculator

User may make changes from any cell that is orange or brown in color (similar to the cells to the immediate right). Cells in green are calculated for you.		(Step 1a) If you know the 85th percentile storm event for your location enter it in the box below		(Step 1b) If you can not answer 1a then select the county where the project is located (click on the cell to the right for drop-down): This will determine the average 85th percentile 24 hr. storm event for your site, which will appear under precipitation to left.	***YOLO***
				(Step 1c) If you would like a more percise value select the location closest to your site. If you do not recgonize any of these locations, leave this drop-down menu at location. The average value for the County will be used.	**DAVIS 2 WSW EXP FARM**

Project Information		***Runoff Calculations***		
Project Name:	***Corbett 10***	(Step 2) Indicate the Soil Type (dropdown menu to right):	***Group C Soils***	**Low infiltration. Sandy clay loam. Infiltration rate 0.05 to 0.15 inch/hr when wet.**
Waste Discharge Identification (WDID):	***Optional***	(Step 3) Indicate the existing **dominant** non-built land Use Type (dropdown menu to right):	***Cultivated Agricultural: minor crop residue cover***	
Date:	***Optional***	(Step 4) Indicate the proposed **dominant** non-built land Use Type (dropdown menu to right):	***A mix of lawn, grass, pasture and tress covering less than 50% of the open space***	
Sub Drainage Area Name (from map):	***Optional***			

Runoff Curve Numbers				Complete Either		
				Sq Ft	Acres	Acres
Existing Runoff Curve Number	**88**	(Step 5) *Total Project Site Area:*			**71.00**	**71.00**
Proposed Development Runoff Curve Number	**90**	(Step 6) *Sub-watershed Area:*			**71.00**	**71.00**
		Percent of total project :		**100%**		

Design Storm					
Based on the County you indicated above, we have included the 85 percentile average 24 hr event - P85 (in)^ for your area.	**0.65**	**in**			
The Amount of rainfall needed for runoff to occur (Existing runoff curve number -P from existing RCN (in)^)	**0.27**	**In**	(Step 7) ***Sub-watershed Conditions***	Complete Either		Calculated Acres
P used for calculations (in) (the greater of the above two criteria)	**0.65**	**In**	Sub-watershed Area (acres)	Sq Ft	Acres	**71.00**
^Available at www.cabmphandbooks.com			Existing Rooftop Impervious Coverage		**0**	**0.00**
			Existing Non-Rooftop Impervious Coverage		**0**	**0.00**
			Proposed Rooftop Impervious Coverage		**23.43**	**23.43**
			Proposed Non-Rooftop Impervious Coverage		**11.5**	**11.50**

			Credits	Acres	Square Feet
			Porous Pavement	**0.00**	**0**
			Tree Planting	**1.97**	**85,813**
Pre-Project Runoff Volume (cu ft)	**21,188**	**Cu.Ft.**	Downspout Disconnection	**23.43**	**1,020,611**
Project-Related Runoff Volume Increase w/o credits (cu ft)	**9,509**	**Cu.Ft.**	Impervious Area Disconnection	**0.00**	**0**
			Green Roof	**0.00**	**0**
			Stream Buffer	**0.00**	**0**
			Vegetated Swales	**0.00**	**0**
Project-Related Volume Increase with Credits (cu ft)	**0**	**Cu.Ft.**	**Subtotal**	**25.40**	**1,106,424**
			Subtotal Runoff Volume Reduction Credit	**10982 Cu. Ft.**	

You have achieved your minimum requirements	(Step 9) ***Impervious Volume Reduction Credits***	**Volume (cubic feet)**	
	Rain Barrels/Cisterns	**0 Cu. Ft.**	
	Soil Quality	**0 Cu. Ft.**	
	Subtotal Runoff Volume Reduction	**0 Cu. Ft.**	
	Total Runoff Volume Reduction Credit	**10,982 Cu. Ft.**	

Walnut 10/Farmstead

Stormwater Quality Swale Calculations

Updated: 5/22/2019

				Swale Geometrics						Hdyraulics			Water Quality	
C	Intensity	Area	WQF	US FL Elev.	DS FL Elev.	Swale Slope	Bottom Width	Side Slope	Swale Length	Manning's "n"	WQ Velocity	Normal Depth	Retention Time	Length Required
---	(in/hr)	(ac)	(cfs)	(ft)	(ft)	(ft/ft)	(ft)	(H:V)	(ft)	---	(fps)	(ft)	(mins)	(ft)
0.50	0.20	71.0	7.10	121.5	119.5	0.0020	10	3	100	0.250	0.3	1.61	10	178

Notes

1. Methodology based on New Development and Redevelopment BMP Handbook and Post-Construction Water Balance Calculator
2. Roughness coefficient for water quality flow is 0.25 per the BMP Handook

Appendix M

Technical Memorandum

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

To:	Megan Buche, PSOMAS (Winters City Engineer) Dave Dowswell, (Winters Interim City Planner)		
From:	Jim Fletter, PE (Lic#C73457) Wood Rodgers	**CC:**	Mike Motroni, Principal Engineer, Wood Rodgers Timothy Denham, Principal Planner, Wood Rodgers
Date:	June 12, 2024		
Subject:	Farmstead Subdivision Current Sewer Demand and Impact to the Gateway Sewer Pump Station		

Background

The owners of the Farmstead Subdivision (Subdivision) prepared a technical memorandum concerning the ability of the City of Winters' (City) Gateway and East Street Sewer Pump Stations to safely convey the Subdivision's sewer demands to \the City's wastewater treatment plant. That memo, dated October 19, 2017, is provided in **Appendix A.** The memo concluded that the Gateway Pump Station has sufficient capacity to support the Subdivision sewer demand because use of the land that PG&E developed is significantly less intensive than the original planned residential use.

In the intervening years since that memo was prepared, the lotting configuration changed with the current Tentative Subdivision Map (TSM), dated January 10, 2024. The TSM, provided in Appendix B, has fewer overall residential units and commercial space. The figure on the following page shows the current land uses and sewer demands. The two tables below demonstrate that the sewer demand to the Gateway Sewer Pump Station is lower with the current TSM.

2017 Farmstead – Peak Wet Weather Flow (PWWF) Sewer Demand

Land Use	Acres	EDU	PWWF (gpm)
Low Density Residential	37.8	211	154
Planned Commercial	18.4	146	103
Open Space	3.6	0	2
Totals	**59.8**	**341**	**259**

2024 Farmstead Peak Wet Weather Flow Sewer Demand

Land Use	Acres	EDU	PWWF (gpm)
Low & Medium Density Residential (Single Family)	39.4	188	140
High Density / Townhome Residential (Multi-Family)	10.1	121	84
Commercial	3.3	26	19
Parks & Park/Detention	6.0		5
Other	3.1		3
Totals	**61.9**	**335**	**251**



JANUARY 2024 LAND USE
FARMSTEAD SUBDIVISION
WINTERS, CA
JUNE 2024

LDR	COMM
MDR	PARK
HDR	PARK/BASIN
TOWNHOMES	OTHER

0 100 200 400
Feet

NORTH

WOOD RODGERS

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Findings

Based on the 2017 memo of PWWF sewer demand (259 gpm) and the 2024 TSM PWWF demand (251 gpm), as shown in the above tables, the sewer demand from the Farmstead Subdivision has decreased by 8 gpm. Wood Rodgers finds that the current land use plan for the Farmstead Subdivision will have no adverse impact on the ability of the Gateway and East Street Sewer Pump Stations to serve the Subdivision.

APPENDIX A

TECHNICAL MEMORANDUM
SKREDEN SUBDIVISION SEWER DEMAND ON GATEWAY SEWER PUMP STATION
OCTOBER 19, 2017

WOOD RODGERS

October 19, 2017

Mr. Mark Skreden
Skreden Commercial Real Estate
1515 Response Road
Sacramento, California 95815

RE: Technical Memorandum – Skreden Subdivision Sewer Demand on Gateway Sewer Pump Station

Dear Mr. Skreden,

EXECUTIVE SUMMARY AND PURPOSE

Wood Rodgers, Inc. (Wood Rodgers) was requested to review existing documentation and data regarding the capacity of the City of Winters' (City) East Street Sewer Pump Station (ESPS) to safely accommodate sewer demands from the planned community north of Grant Avenue (located between Timberline Crest Road and the existing Almond Orchard subdivision east of Walnut Lane). As of the writing of this technical memorandum (memo), a planning application had not been submitted to the City. For the purposes of identification, this community is referred to in this memo as the Skreden Subdivision or Subdivision.

The location of the Skreden Subdivision is further identified on the vicinity map in **Figure 1**. The developers envision that this Subdivision will consist of 211 single family detached residential units and office/retail units, as well as a market. Some open spaces, including parks, stormwater quality ponds and channel facilities, are planned as well. A diagram of the envisioned subdivision is provided in **Figure 2**. The figure includes a sketch of the tentative land use layout. When overlaying the sketch onto the current unimproved parcels, an approximate acreage can be obtained to estimate sewer demands that are expected once the parcels are fully developed.

The original purpose of this memo was to determine whether or not the ESPS has sufficient capacity in the short- and long-term to safely accept the sewer demands from this Subdivision. However, upon further investigation, an alternative was developed that provides zero impact to the East Street Sewer Pump Station by reallocating all of the Subdivision's sewer demand to the City's Gateway Sewer Pump Station sewer shed.

This memo demonstrates that the City's Gateway Sewer Pump Station (GPS) has an excess capacity due to revised sewer demand estimates of the Pacific Gas and Electric Company (PG&E) facility from the original estimates used to size the pump station. The location of this facility is shown in Figure 1. Additional demand on the GPS sewer shed from the Skreden Subdivision is shown to exceed the current capacity of the GPS by approximately 2%. Further analysis of the demands from the businesses north of Grant Avenue is recommended because, as with the PG&E facility, the demand from those businesses is likely much lower than originally assumed. By allowing the reallocation of the Subdivision's sewer demands to the GPS, the City will efficiently utilize its existing pump station at build-out and will remove a major cost barrier limiting development of the commercially zoned land along Grant Avenue. How this may be accomplished is outlined in the following paragraph.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME



Figure 1

Vicinity Map

Skreden Subdivision

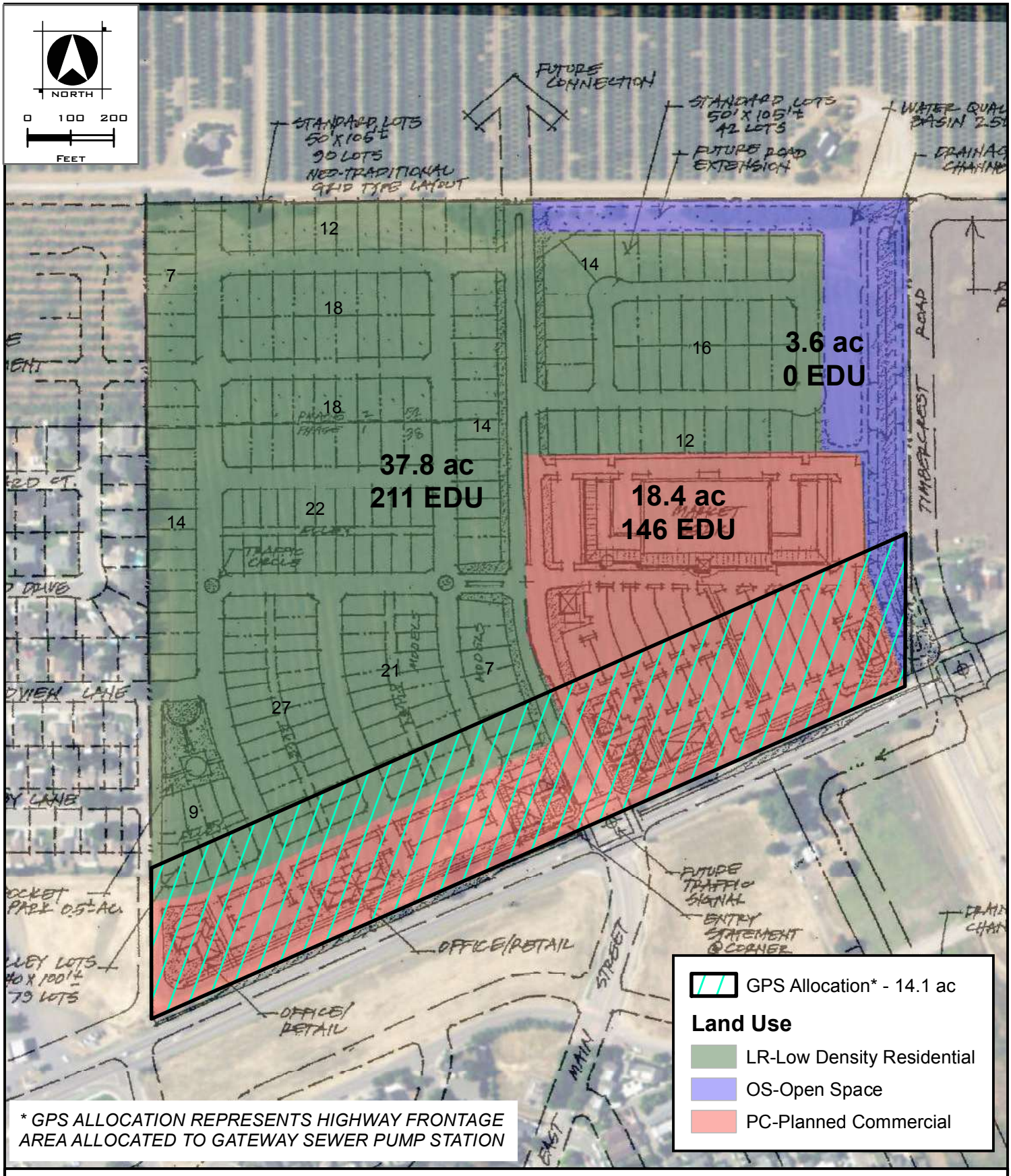
Winters, CA

October 2017



Prepared By: JEF *Checked By: JK*

J:\3000-s\3559 Skreden Commercial Real Estate\3559001_Sewer_Analysis\Civil\Studies\Sewer\ESPS Sewer Analysis\Figures\Fig1 Skreden Su-Vicinity Map.mxd 10/17/2017 3:20:02 PM jfletter



PROPOSED LAND USE
SKREDEN SUBDIVISION
WINTERS, CA
OCTOBER, 2017

WOOD RODGERS

FIGU 1006

HISTORIC DOCUMENTATION AND DATA

The City of Winters maintains records and documentation used to identify planning-level sewer demands from City parcels. The following documents were utilized for this purpose:

- Sewer Master Plan[1] (SMP) used to determine equivalent dwelling units and peak wet weather flows for the Skreden Subdivision.
- PG&E Wastewater Demand Estimates[2] used to identify current demand to the GPS.
- I-505 Gateway Sewer Improvement Allocation and Allocation Plan, used to determine capacity allocations to parcels within the GPS sewer shed.

The latter two documents are provided in Appendices A and B, respectively.

GATEWAY SEWER PUMP STATION

The GPS was constructed to support the Peak Wet Weather Flow (PWWF) demands for the commercial lots fronting Grant Avenue and on Matsumoto Drive (County Road 90). PWWF is typically a derived maximum sewer flow based on average daily sewer flow generation, a daily peaking multiplier and potential stormwater infiltration into the sewer system. Those lots are identified in the "Sewer Cost Allocation Plan" provided in Appendix B. That appendix also includes acreages of each parcel as shown on the "Allocation of Sewer Facility Improvements" table. Per the GPS improvement plans, the pump station was constructed with a capacity of 400 gallons per minute (gpm)[3].

Within the table, a portion of the Skreden Subdivision is allocated to contribute to the GPS sewer shed. That portion is identified as Assessor Parcel Number 050-038-018 and consists of 14.1 acres. A hatch of this area is superimposed on the land use in Figure 2.

Skreden Subdivision Allocation of PWWF

The table in Appendix B identified 81.42 acres of developable land that is allocated to the pumping capacity of the GPS. The Skreden Subdivision's portion of the acreage is 14.1 of the total 81.42 acres, or 17.3%. Since the GPS pumping capacity is 400 gpm, the Subdivision's allocation can be derived as 69 gpm[4].

PG&E DEVELOPMENT

Per the allocation table in Appendix B, the Jordan and McClish developable lands total 55.2 acres. Using the same ratio method above and the parcel acreages shown in the Appendix B, the PWWF demand to the pump station from these two lands is 271 gpm. The PG&E facility encompasses the entire Jordan parcel and most of the McClish parcel. The overall developed lands for PG&E represents approximately 73.4% of the of the GPS sewer shed. **Figure 3**, below, shows the PG&E development that encompasses the Jordan developed lands, a portion of the McClish developed lands,

[1] RMC, Wastewater Collection System Master Plan, December 2006
[2] BKF, "PG&E Gas Operations Technical Training Center – Winters, CA, Water Use and Wastewater Demand Estimates", March 17, 2014
[3] Laugenour and Meikle, Improvement Plans for Wastewater Lift Station Project (SPS5), July 14, 2011, Sheet 6, Construction Note 1.
[4] Simple ratio allocation is possible because the average day dry weather flow for the parcels in Appendix B are equivalent (2,500 gpd/acre) based on the SMP criteria, Table 3-1.

and the remainder of undeveloped McClish land. The drainage channel to the west of PG&E is included in the PG&E lands.

The PG&E PWWF can be broken out from the undeveloped portion of the McClish land utilizing the SMP criteria and the acreages shown in Figure 3. The information is provided in the following table:

Land Use	Acres	PWWF (gpm)
PG&E	40.5	199
Undeveloped McClish	14.7	72
Totals	55.2	271

As Shown in Appendix A, BKF calculated that the average day dry weather flow (ADDF) demand from the PG&E facility will be 5 gpm (7,222 galons per day) with the SMP as the basis for their calculations. ADDF is the average daily sewer flow generated before multiples are applied for peak dry weather flow and stormwater infiltration to arrive at a PWWF. Utilizing the PG&E facility information and the SMP criteria, the PWWF from the PG&E facilities is calculated to be 17 gpm.

The PG&E facility was calculated by BKF to demand far less than the 199 gpm that the pump station was constructed to accept. The total of this unused capacity is 182 gpm. This discrepancy is due to several factors including the following:

- PG&E's facility has an ADDF of 2,000 gpd versus the 2,500 gpd for the master planned use.
- **The development density is expected to be 287 employees per day over 40.5 acres. The SMP planned for 3,360 employees over that same acreage.**
- Stormwater infiltration for the PG&E facility is based on building acreage (3.82 ac). The SMP planned for infiltration over the entire 40.5 acres. 90% of the facility will be non-sewered.

SKREDEN SUBDIVISION

As described above and shown in Figure 2, the Skreden Subdivision incorporates residential and commercial improvements. The table below provides the PWWF demands based on land use area, Equivalent Dwelling Units (EDU), and the SMP criteria.

Land Use	Acres	EDU	PWWF (gpm)
Low Density Residential	37.8	211	154
Planned Commercial	18.4	146	103
Open Space	3.6	0	2
Totals	59.8	341	259

As describe earlier in this memo, the 14.1 acre portion of the Skreden Subdivision that is allocated to the GPS (shown on Figure 2) represents 69 gpm of the total PWWF in the above table. The remaining PWWF that is not allocated to the GPS is 190 gpm (259 gpm less 69 gpm of demand current allocated to the GPS).

Redirection of Sewer Demand for Skreden Subdivision

Figure 2 highlights the area of the Skreden Subdivision that is currently within the GPS sewer shed. The remaining 45.7 acres is programmed to flow to a future pump station north of the Subdivision. This north pump station shed is designated "Future Pump Station C" on Figure 5-24 in the SMP.

By way of this memo, the developer of the Skreden Subdivision is proposing to permanently reallocate all of the PWWF demand to the GPS sewer shed. Based on the information provided here, the PG&E facility was not developed with the demand anticipated by the SMP resulting in 182 gpm of unused capacity. Reallocating the 190 gpm from the "Future Pump Station C" sewer shed to the GPS sewer shed would result in an 8-gpm capacity deficiency (2% of the 400 gpm capacity).



JORDAN & MCCLISH PARCELS
PG&E DEVELOPMENT
WINTERS, CA
OCTOBER, 2017

WOOD RODGERS

J:\3000-s\3559 Skreden Commercial Real Estate\3559001_Sewer_Analysis\GIS\Tasks\PG&E Area.mxd 10/25/2017 3:01:13 PM jfletter

FIGURE 1010

FINDINGS & CONCLUSION

This memo has shown that the GPS has an unused capacity of 182 gpm because the original lands now occupied by the PG&E facility were allocated more PWWF demand than was ultimately developed. The southern portion of the Skreden Subdivision has been allocated 69 gpm to the GPS; however, an additional 190 gpm of PWWF from the north portion could be allocated to the GPS, thereby exceeding the capacity of the pump station by 8 gpm.

In order to reallocate the entire Skreden Subdivision to the GPS sewer shed without the capacity deficiency, the following two possible actions are provided for consideration:

1) Demonstrate that the existing development within the GPS sewer shed, other than PG&E, does not utilize their allotted share of the 400-gpm capacity of the GPS.
2) Should the above option not realize the additional capacity necessary for the entire proposed Skreden Subdivision, then the size of the residential and/or commercial Subdivision could be reduced.

While reallocating the 190 gpm of sewer demand from the Skreden Subdivision to the GPS sewer shed will affect the pump station, in no way can it affect demands on the East Street Sewer Pump Station. This is because the GPS naturally attenuates all flow from its sewer shed since the pumps operate at a maximum rate of 400 gpm regardless of the shed demands.

RECOMMENDATION

This technical memorandum provides data and information regarding the sewer demand and the opportunity to reallocate a portion of the Skreden Subdivision sewer demand to the GPS sewer shed. A recommendation for this reallocation is not provided. If Option 1, above, is considered, then Wood Rodgers recommends review of historic operational data of the GPS to quantify the average day dry weather flow since completion of the Arco and Burger King developments. These developments are located north of Grant Avenue and east of Matsumoto Road. Prior to completion of the PG&E facility, these facilities should have been the sole demand to the pump station. This data and the SMP criteria can be used to arrive at a PWWF demand from these parcels. The parcels are identified as 038-050-076 and 077 in the table in Appendix B. The information may demonstrate that the demand from these parcels on the GPS is less than the allocation used to size the pump station. In this way, it may be possible to show that reallocation of the Skreden Subdivision sewer demands will not result in exceedance of the pump station's capacity.

Respectfully Submitted,
WOOD RODGERS, INC.

Jim Fletter, PE
Associate Engineer

Attachments: Appendix A – PG&E Gas Operations Technical Training Center – Winters, CA Water Use And Wastewater Demand Estimates
Appendix B – I-505/Gateway Sewer Improvement Allocation, Allocation Of Sewer Facility Improvements, Sewer Cost Allocation Plan

References: *City of Winters 2006 Wastewater Collection System Master Plan*

APPENDIX A

PG&E GAS OPERATIONS TECHNICAL TRAINING CENTER – WINTERS, CA
WATER USE AND WASTEWATER DEMAND ESTIMATES

March 17, 2014

City of Winters
Alan Mitchell, Assistant City Engineer
c/o Ponticello Enterprises Consulting Engineers, Inc.
1216 Fortna Avenue
Woodland, CA 95776

RE: PG&E Gas Operations Technical Training Center – Winters, CA
Water Use and Wastewater Demand Estimates

Dear Mr. Mitchell:

This letter summarizes the domestic water use and wastewater demand estimates for the proposed project. Three sources of unit demand data were referenced for water use, as follows:

1) Table 2-4: Land Use and Demand Allocations from the City of Winters *Water Master Plan*, December 2006;

2) Table 2-2: Non-Residential Land Uses from the Northern California Water Association *Land Use/Water Supply Analysis Guidebook*, November 2007; and,

3) Actual water use data from PG&E's Livermore Training Center facility.

Three sources of unit demand data were referenced for wastewater demand, as follows:

1) Table 3-1: ADWF Factor by Land Use Category from the City of Winters *Sewer Collection System Master Plan*, December 2006;

2) Table H2.1(1): Estimated Waste/Sewage Flow Rates from the 2013 California Plumbing Code (CPC); and,

3) Actual water use data from PG&E's Livermore Training Center facility.

SITE USE

The proposed developed area of the site will be approximately 34.9 acres. A total of approximately 4.3 acres of land surrounding the buildings will be planted and irrigated. An area of approximately 8.9 acres will be used for excavation equipment training. The excavation training area will be undeveloped and will require dust control efforts during the dry weather months. The remaining project area will consist of hardscapes/pavements and undeveloped/hydroseeded areas.

At build-out, the proposed project will include a total of approximately 166,300 square feet (SF) of building space and accommodate up to 287 employees (staff, faculty, and trainees). Building uses will be vocational training. A "Utility Village" totaling approximately 9,000 SF of mock residential units is included in the building area total, but for purposes of water use and wastewater demand estimating is assumed to have zero demand since no connections will be provided to the units.

CITY WATER AND SEWER MASTER PLAN PROJECTIONS

The City's *Water Master Plan* water use projections include the project area within 54 acres of Planned Commercial/Business Park (PC/BP) use (Figure 2-3) with a unit demand of 2,038 gallons per day per acre (Table 2-4) and a total Average Day Demand of 0.11 million gallons per day (MGD) (Table 2-4) or 110,000 gallons per day (GPD).

The City's *Sewer Master Plan* sewer demand projections include the project area within 54 acres of Planned Commercial/Business Park (PC/BP) use (Figure 2-2) with a unit demand of 2,500 gallons per day per acre (Table 3-1) and a total Average Dry Weather Flow of 136,100 gallons per day (GPD) (Table 3-3).

PROJECT WATER USE PROJECTIONS

City of Winters *Water Master Plan* Unit Demand

Table 2-4 illustrates unit demands for various land uses. Light Industrial was selected as the most similar land use to Vocational Training. From Table 2-4, the unit demand for light industrial land use is listed as 2,185 gallons per acre per day. Applying this unit demand to the building areas, the indoor water use (Average Day Demand) is expected to be approximately 7,890 GPD. Table 2-4 indicates that the 2,185 gallons per acre per day unit demand includes irrigation demand, so applying this same unit demand to the irrigated land area yields an expected outdoor water use of 9,396 GPD. The projection of domestic and irrigation water use at the project site based on the City's *Water Master Plan* is 17,285 GPD (Average Day Demand).

Northern California Water Association *Land Use/Water Supply Analysis Guidebook* Unit Demand

The Northern California Water Association (NCWA) was formed in 1992 to organize a regional effort to ensure that the region has reliable and affordable water supplies. Its members consist of water districts, water companies, small towns, rural communities, and landowners. The primary objective of the *Land Use/Water Supply Guidebook* (November 2007) is to provide practical information to assist with review or preparation of water supply and demand analyses as part of local land use planning processes.

Table 2-2 of the Guidebook illustrates unit water demands for various land uses. Light Industrial was selected as the most similar land use to Vocational Training. From Table 2-2, the unit water demand for light industrial land use is assumed to be 2 acre-feet per acre per year. Applying this unit demand to the building areas, the indoor water use (Average Day Demand) is expected to be approximately 6,447 GPD. From Table 2-2, the unit water demand for landscaping is assumed to be 4 acre-feet per acre per year. Applying this unit demand to the irrigated land area yields an expected outdoor water use of 15,354 GPD. The projection of domestic and irrigation water use at the project site based on the NCWA *Guidebook* is 21,801 GPD (Average Day Demand).

Livermore Training Facility Unit Demand

The Livermore Training Facility is a 44.2-acre site with a building area of 29,636 SF. The area requiring dust control is approximately 4 acres. The landscaped/irrigated area is approximately 6 acres.

Water use data from the Livermore Training Facility for February 2012 to January 2014 was provided by PG&E. The site includes a total of eight City of Livermore water meters. Three of the meters are associated with fire services and are not considered in this analysis. One of the meters (2") serves the buildings' domestic use. The remaining four meters are primarily used for irrigation. One of these irrigation services includes a PG&E submeter that is used to measure water use associated with dust control operations.

Based on the water use data from the Livermore Training Facility, the average daily domestic unit demand for the two-year period is 1,927 gallons per day per acre, the average daily irrigation unit demand is 2,284 gallons per day per acre, and the average daily dust control demand is 424 gallons per day per acre. Applying these unit demands to the Winters site areas yields Average Day Demands of 6,957 GPD for domestic use, 9,823 GPD for irrigation use, and 3,774 GPD dust control for dust control. The projection of total water use at the project site based on the water use data from the Livermore Training Facility is 20,554 GPD (Average Day Demand).

PROJECT WASTEWATER DEMAND ESTIMATES

City of Winters *Sewer Collection System Master Plan* Unit Demand

Table 3-1 illustrates unit demands for various land uses. Light Industrial was selected as the most similar land use to Vocational Training. From Table 3-1, the unit wastewater demand for light industrial land use is assumed to be 2,000 gallons per acre per day. Applying this unit demand to the building areas, the indoor wastewater demand (Average Dry Weather Flow) is expected to be approximately 7,222 gallons per day (GPD). The total Average Dry Weather Flow using the City's *Sewer Collection System Master Plan* unit demand is 7,222 GPD.

California Plumbing Code Unit Demand

Table H2.1(1) lists various estimates of wastewater flow rates for different land use types. For reference, offices, elementary schools, high schools, and stores are assumed to generate approximately 20 GPD per employee/staff member/student. The Factories classification was selected as the most similar land use to Vocational Training. The Factories unit demand is 25 GPD per employee. Using 287 employees at this unit rate would yield a wastewater demand of 7,175 GPD. Thus, the total Average Dry Weather Flow for the proposed project using the CPC Table H2.1(1) unit demand would be 7,175 GPD.

Livermore Training Facility Unit Demand

The water use data for the 4-month period of November through March within the 24-month data provided was used to estimate monthly sewer demand. This monthly sewer demand was then multiplied by 12 to yield an annual demand which was then converted to an average daily unit demand. The data set yields a unit demand of 2,009 gallons per day per acre. Applying this unit demand to the Winters site yields an Average Dry Weather Flow of 7,670 GPD.

CONCLUSIONS

The three sources yield indoor water use estimates of 7,890 GPD, 6,447 GPD, and 6,957 GPD (Average Day Demand). Based on 287 employees, this translates to an average daily use between 22.5 GPD and 27.5 GPD by an individual. The three sources yield outdoor water use (irrigation) estimates of 9,396 GPD, 15,354 GPD, and 9,823 GPD (Average Day Demand). Based on the Livermore Training Center water use, the Winters water use for dust control is expected to be approximately 3,774 GPD (Average Day Demand). The total domestic water use Average Day Demand is therefore expected to be between 20,554 GPD and 25,575 GPD. The City's *Water Master Plan* had projected a total of 110,000 GPD for the 54-acre area that the project lies within. Thus, the actual water use will be well below the City's projection of water use.

Table 1: Water Use Summary

	City Projections	Project Estimates		
	Water Master Plan Projections	*Master Plan* Unit Demand Method	NCWA Unit Demand Method	Livermore Site Unit Demand Method
	[GPD]	[GPD]	[GPD]	[GPD]
Average Day Demand	110,000	21,059	25,575	20,554

The three sources yield wastewater demand estimates of 7,222 GPD, 7,175 GPD, and 7,670 GPD (Average Dry Weather Flow). The City's *Sewer Master Plan* had projected a total of 136,100 GPD for the 54-acre area that the project lies within. Thus, the actual wastewater demand will be well below the City's projection of wastewater demand.

Table 2: Sewer Demand Summary

	City Projections	Project Estimates		
	Sewer Master Plan Projections	*Master Plan* Unit Demand Method	NCWA Unit Demand Method	Livermore Site Unit Demand Method
	[GPD]	[GPD]	[GPD]	[GPD]
Average Dry Weather Flow	136,100	7,222	7,175	7,670

Please also refer to the attached tables. Table A illustrates the project water use estimates. Table B illustrates the project wastewater demand estimates. Table C illustrates the Livermore Training Center water use and wastewater demand summary.

Sincerely,

Jaysen Long, P.E.
Principal / Vice President

James McCurdy, P.E.
Project Manager

Attachments

TABLE A: ESTIMATED WATER USE - AVERAGE DAY DEMAND

Use	Area		Employees	Source 1 - Winters[1]		Source 2 - NCWA[2]		Source 3 - Livermore	
	[SF]	[acre]	[#]	Unit Demand [gal/day/acre]	Demand [gal/day]	Unit Demand [ac-ft/acre/year]	Demand [gal/day]	Unit Demand [gal/day/acre]	Demand [gal/day]
Indoor									
Learning Center	95,800	2.20		2,185 [3]	4,805.4	2.0 [4]	3,926.5	1,926.7 [5]	4,237.2
T&D Construction	10,500	0.24		2,185 [3]	526.7	2.0 [4]	430.4	1,926.7 [5]	464.4
Utility Village	9,000	0.21		-	-	-	-	-	-
Weld Lab	25,000	0.57		2,185 [3]	1,254.0	2.0 [4]	1,024.7	1,926.7 [5]	1,105.8
Expansion Area	26,000	0.60		2,185 [3]	1,304.2	2.0 [4]	1,065.6	1,926.7 [5]	1,150.0
Indoor Subtotal	166,300	3.82	287		7,890.3		6,447.1		6,957.4
Indoor Use per Employee					27.5		22.5		24.2
Outdoor									
Landscape		4.30 [6]		2,185 [7]	9,395.5	4.0 [8]	15,354.1	2,284.3 [5]	9,822.5
Dust Control		8.90 [9]		424.0 [5]	3,773.6	424.0 [5]	3,773.6	424.0 [5]	3,773.6
Outdoor Subtotal		13.20			13,169.1		19,127.8		13,596.1
Indoor/Outdoor Total		17.02			21,059.4		25,574.9		20,553.5

[1] City of Winters, *Water Master Plan*, December 2006

[2] Northern California Water Association, *Land Use/Water Supply Analysis Guidebook*, November 2007

[3] *Water Master Plan*, Table 2-4: Land Use and Demand Allocations, Light Industrial classification

[4] *Land Use/Water Supply Analysis Guidebook*, Table 2-2: Non-Residential Land Uses, Light Industrial classification

[5] Livermore Training Center Water Use Data, Feb 2012 to Jan 2014 (See Table C)

[6] Irrigated Project Area

[7] *Water Master Plan*, Table 2-4 indicates that Water Use Factors include irrigation demand

[8] *Land Use/Water Supply Analysis Guidebook*, Table 2-2: Non-Residential Land Uses, Landscape classification

[9] Excavation Training Area

TABLE B: ESTIMATED WASTEWATER DEMAND - AVERAGE DRY WEATHER FLOW

Use	Area		Employees	Source 1 - Winters[1]		Source 2 - CPC Table H2.1(1)[2]		Source 3 - Livermore	
	[SF]	[acre]	[#]	Unit Demand [gal/day/acre]	Demand [gal/day]	Unit Demand [gal/day/employee]	Demand [gal/day]	Unit Demand [gal/day/acre]	Demand [gal/day]
Learning Center	95,800	2.20		2,000 [3]	4,398.5				
T&D Construction	10,500	0.24		2,000 [3]	482.1				
Utility Village	9,000	0.21		-	-				
Weld Lab	25,000	0.57		2,000 [3]	1,147.8				
Expansion Area	26,000	0.60		2,000 [3]	1,193.8				
Totals	166,300	3.82	287		7,222.2	25.0 [4]	7,175.0	2,008.9 [5]	7,669.5

[1] City of Winters, *Sewer Collection System Master Plan*, December 2006

[2] 2013 California Plumbing Code, Table H2.1(1): Estimated Waste/Sewage Flow Rates

[3] *Sewer Collection System Master Plan*, Table 3-1: ADWF Factor by Land Use Category, Light Industrial classification

[4] CPC Table H2.1(1), Factories classification

[5] Based on 4-month (November through March) Domestic Water Use at Livermore Training Center (See Table C)

TABLE C: LIVERMORE TRAINING CENTER WATER USE SUMMARY & WASTEWATER DEMAND ESTIMATE

	Irrigation		Domestic			Dust Control		Wastewater[1]	
	Average Day Demand [GPD]	Unit Demand [GPD/acre]	Average Day Demand [GPD]	Unit Demand [GPD/acre]	Unit Demand [GPD/SF]	Average Day Demand [GPD]	Unit Demand [GPD/acre]	Average Dry Weather Flow [GPD]	Unit Demand [GPD/acre]
2012	14929.7	2488.3	958.0	1408.1	0.032	1592.4	398.1		
2013	12481.9	2080.3	1663.6	2445.3	0.056	1799.6	449.9		
Average	13705.8	2284.3	1310.8	1926.7	0.044	1696.0	424.0	1366.8	2008.9

[1] Based on average monthly water use in the months of December, January, February, and March. [Total 4-month water use / 4 = monthly average; Monthly average * 12 = annual use; Annual use / 365 = daily use]

APPENDIX B

I-505/GATEWAY SEWER IMPROVEMENT ALLOCATION
ALLOCATION OF SEWER FACILITY IMPROVEMENTS
SEWER COST ALLOCATION PLAN

I-505/Gateway Sewer Improvement Allocation
Allocation of Sewer Facility Improvements
REVISED 4/13/2015

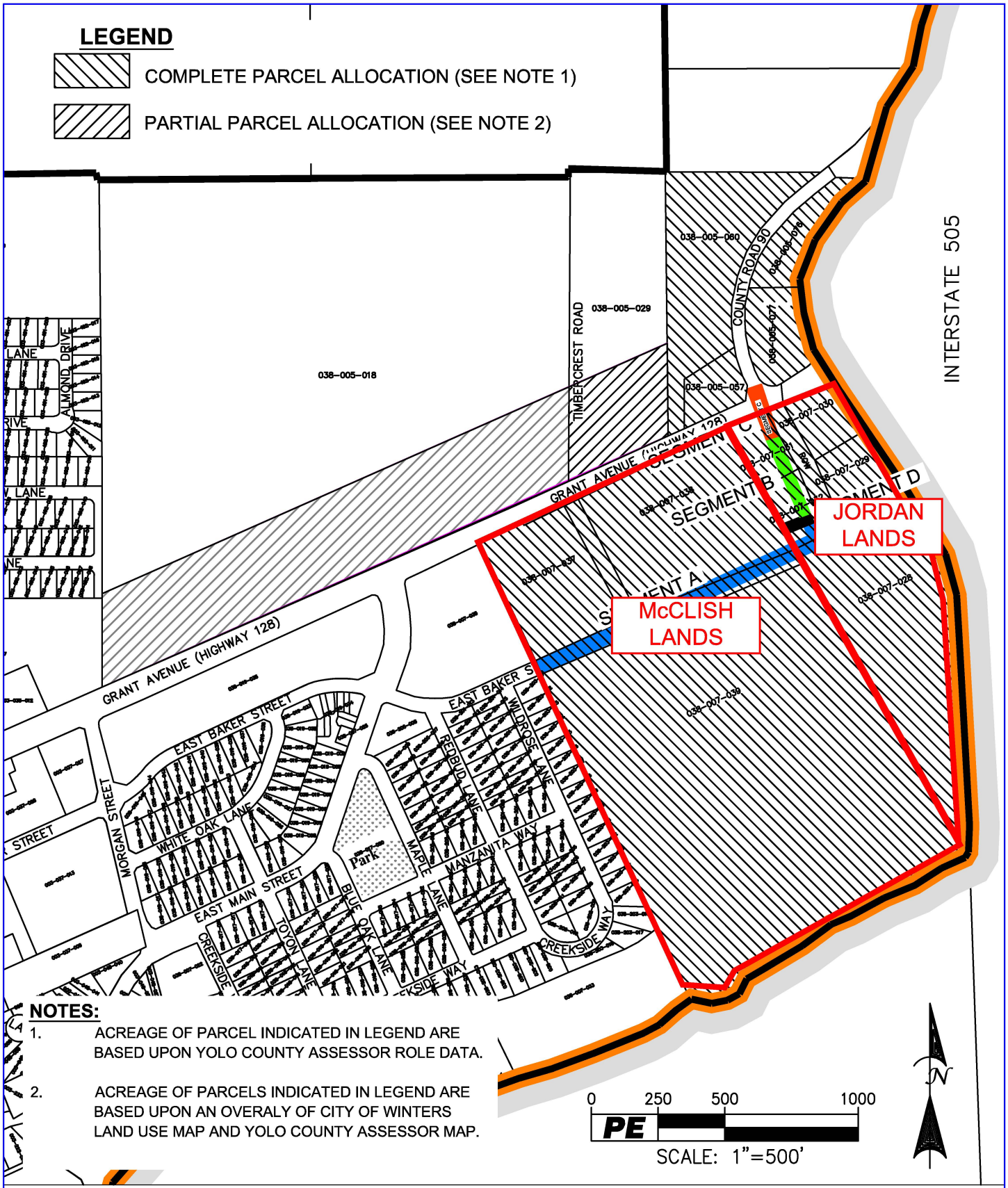
Sewer Construction Cost	Area of Benefit	Cost per acre	Cost of Segment
Segment A - Gravity in McClish	60.60	$2,081.06	$126,112
Segment B - Gravity in Jordan	20.82	$3,385.95	$70,499
Segment C - Gravity across Hwy	9.10	$19,925.38	$181,341
Segment D - Pump Station	81.42	$6,257.19	$509,467
Total Cost Estimate			**$887,419**

	Area (ac)	Cost (per ac)	Cost Allocation
Jordan[1 3]			
038-070-028	7.50	$9,643	$ 72,324
038-070-029	0.87	$9,643	$ 8,390
038-070-030	0.84	$9,643	$ 8,100
038-070-031	0.87	$9,643	$ 8,390
038-070-032	0.84	$9,643	$ 8,100
ROW	0.80	$9,643	$ 7,715
Subtotal (Jordan)	11.72		$ 113,018
McClish [1 4]			
038-070-037	4.44	$8,338	$ 37,022
038-070-038	5.94	$8,338	$ 49,529
038-070-039	30.92	$8,338	$ 257,819
ROW	2.20	$8,338	$ 18,344
Subtotal (McClish)	43.50		$ 362,714
North of Grant			
038-050-076[1 5]	1.07	$29,569	$ 31,638
038-050-077[1 5]	1.27	$29,569	$ 37,552
038-050-057[1 5]	0.89	$29,569	$ 26,346
038-0500-60[1 5]	5.87	$29,569	$ 173,567
038-050-029[2 4]	3.00	$8,338	$ 25,015
050-038-018[2 4]	14.10	$8,338	$ 117,569
Subtotal (N. Grant)	26.20		$ 411,687
TOTAL (Developable Land)	81.42		$ 887,419

Notes:
1. Acreage based upon Yolo County Assessor Role data for Assessor Parcel Number. (14/15)
2. Acreage based upon overlay of City of Winters Land Use Map and Yolo County Assessor Map.
3. Cost includes sewer segment B & D.
4. Cost includes sewer segments A & D.
5. Cost includes sewer segments C, B & D

Skreden Subdivision Portion Allocated to Gateway Pump Station

Printer: 4/13/2015 10:27 AM



NOTES:

1. ACREAGE OF PARCEL INDICATED IN LEGEND ARE BASED UPON YOLO COUNTY ASSESSOR ROLE DATA.

2. ACREAGE OF PARCELS INDICATED IN LEGEND ARE BASED UPON AN OVERALY OF CITY OF WINTERS LAND USE MAP AND YOLO COUNTY ASSESSOR MAP.

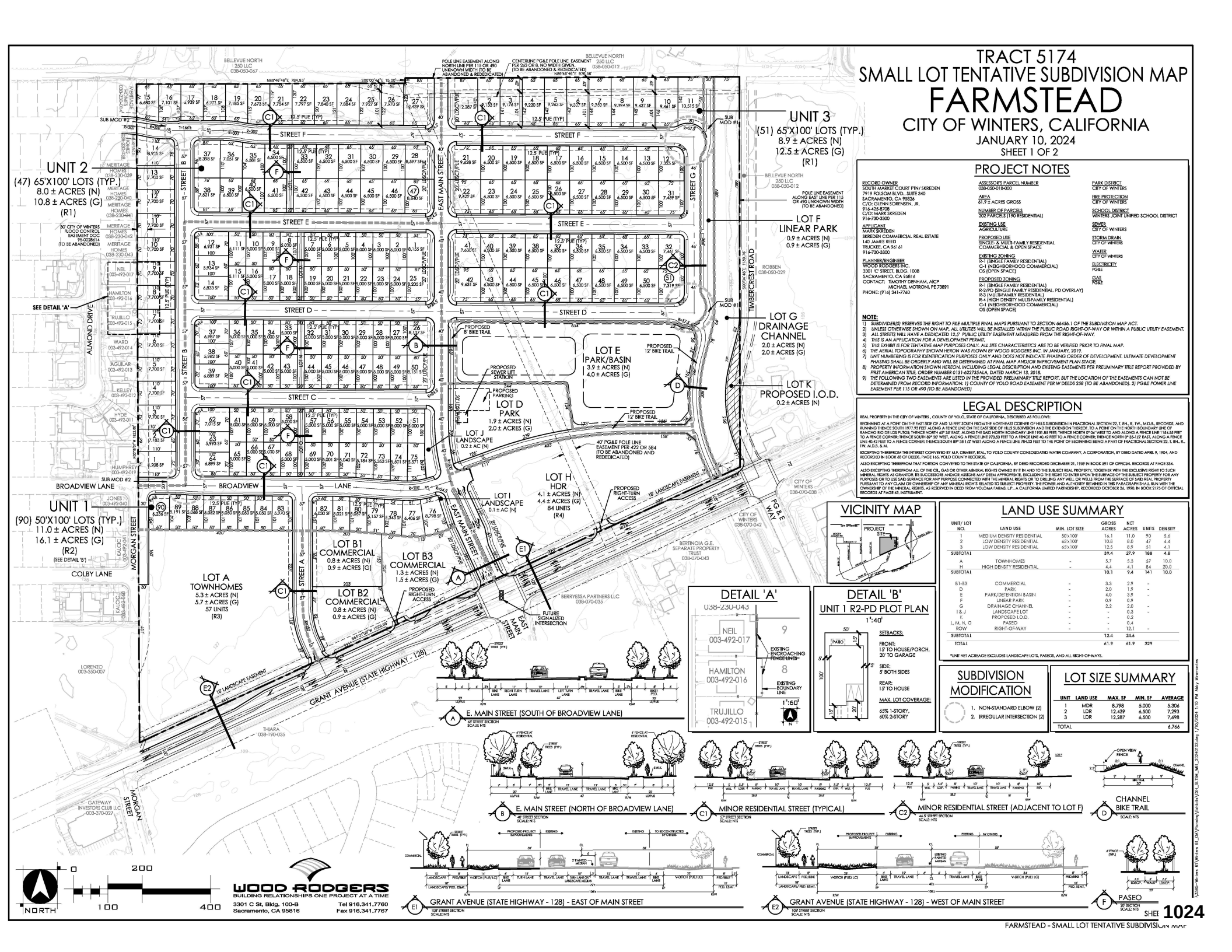
PONTICELLO ENTERPRISES
CONSULTING ENGINEERS
1216 Fortna Avenue
Woodland, CA 95776
Phone: (530) 668-5883
Fax : (530) 668-5893

CITY OF WINTERS
I-505/GATEWAY UTILITY IMPROVEMENTS
SEWER COST ALLOCATION PLAN

DRAFT April 13, 2015

APPENDIX B

FARMSTEAD SMALL LOT TENTATIVE SUBDIVISION MAP
JANUARY 10, 2024



TRACT 5174
SMALL LOT TENTATIVE SUBDIVISION MAP
FARMSTEAD
CITY OF WINTERS, CALIFORNIA
JANUARY 10, 2024
SHEET 1 OF 2

PROJECT NOTES

RECORD OWNER
SOUTH MARKET COURT PTN/ SKREDEN
7919 FOLSOM BLVD., SUITE 340
SACRAMENTO, CA 95826
C/O: GLENN SORENSEN, JR.
916-425-8708
C/O: MARK SKREDEN
916-780-3300

APPLICANT
MARK SKREDEN
SKREDEN COMMERCIAL REAL ESTATE
140 JAMES REED
TRUCKEE, CA 96161
916-730-3300

PLANNER/ENGINEER
WOOD RODGERS INC.
3301 'C' STREET, BLDG. 100B
SACRAMENTO, CA 95816
CONTACT: TIMOTHY DENHAM, AICP
MICHAEL MOTRONI, PE 73891
PHONE: (916) 341-7760

ASSESSOR'S PARCEL NUMBER
038-050-018-000

AREA
61.7 ± ACRES GROSS

NUMBER OF PARCELS
202 PARCELS (190 RESIDENTIAL)

EXISTING USE
AGRICULTURE

PROPOSED USE
SINGLE- & MULTI-FAMILY RESIDENTIAL
COMMERCIAL & OPEN SPACE

EXISTING ZONING
R- (SINGLE FAMILY RESIDENTIAL)
C-1 (NEIGHBORHOOD COMMERCIAL)
OS (OPEN SPACE)

PROPOSED ZONING
R- (SINGLE FAMILY RESIDENTIAL)
R-2/PD (SINGLE FAMILY RESIDENTIAL, PD OVERLAY)
R-3 (MULTI-FAMILY RESIDENTIAL)
R-4 (HIGH DENSITY MULTI-FAMILY RESIDENTIAL)
C-1 (NEIGHBORHOOD COMMERCIAL)
OS (OPEN SPACE)

PARK DISTRICT
CITY OF WINTERS

FIRE PROTECTION
CITY OF WINTERS

SCHOOL DISTRICT
WINTERS JOINT UNIFIED SCHOOL DISTRICT

SEWER
CITY OF WINTERS

STORM DRAIN
CITY OF WINTERS

WATER
CITY OF WINTERS

ELECTRICITY
PG&E

GAS
PG&E

NOTE:
1) *SUBDIVIDER(S) RESERVES THE RIGHT TO FILE MULTIPLE FINAL MAPS PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT.*
2) *UNLESS OTHERWISE SHOWN ON MAP, ALL UTILITIES WILL BE INSTALLED WITHIN THE PUBLIC ROAD RIGHT-OF-WAY OR WITHIN A PUBLIC UTILITY EASEMENT.*
3) *ALL STREETS WILL HAVE A DEDICATED 12.5' PUBLIC UTILITY EASEMENT MEASURED FROM THE RIGHT-OF-WAY.*
4) *THIS IS AN APPLICATION FOR A DEVELOPMENT PERMIT.*
5) *THIS EXHIBIT IS FOR TENTATIVE MAP PURPOSES ONLY. ALL SITE CHARACTERISTICS ARE TO BE VERIFIED PRIOR TO FINAL MAP.*
6) *THE AERIAL TOPOGRAPHY SHOWN HEREON, INCLUDING LEGAL DESCRIPTION WAS FLOWN BY WOOD RODGERS INC. IN JANUARY, 2019.*
7) *UNIT NUMBERING IS FOR IDENTIFICATION PURPOSES ONLY AND DOES NOT INDICATE PHASING ORDER OF DEVELOPMENT. ULTIMATE DEVELOPMENT PHASING SHALL BE DETERMINED AT FINAL MAP AND/OR IMPROVEMENT PLAN STAGE.*
8) *PROPERTY INFORMATION SHOWN HEREON, INCLUDING LEGAL DESCRIPTION AND EXISTING EASEMENTS PER PRELIMINARY TITLE REPORT PROVIDED BY FIRST AMERICAN TITLE, ORDER NUMBER 0131-6227354LA, DATED MARCH 13, 2018.*
9) *THE FOLLOWING TWO EASEMENTS ARE LISTED IN THE PROVIDED PRELIMINARY TITLE REPORT, BUT THE LOCATION OF THE EASEMENTS CAN NOT BE DETERMINED FROM PROVIDED INFORMATION: 1) COUNTY OF YOLO ROAD EASEMENT PER W DEEDS 258 (TO BE ABANDONED). 2) PG&E POWER LINE EASEMENT PER 115 OR 490 (TO BE ABANDONED)*

LEGAL DESCRIPTION

REAL PROPERTY IN THE CITY OF WINTERS, COUNTY OF YOLO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST SIDE OF AND 15 FEET SOUTH FROM THE NORTHEAST CORNER OF HILLS SUBDIVISION IN FRACTIONAL SECTION 22, T. 8N., R. 1W., M.D.B., RECORDS, AND RUNNING THENCE SOUTH 1977.93 FEET ALONG A FENCE LINE ON THE EAST SIDE OF HILLS SUBDIVISION AND THE EXTENSION THEREOF, TO A POINT ON THE NORTH BOUNDARY LINE OF RANCHO LAS PUTAS; THENCE NORTH 65° 32' EAST, ALONG THE SAID NORTH BOUNDARY LINE 1931.86 FEET; THENCE NORTH 0° 34' WEST TO AND ALONG A FENCE LINE 1154.55 FEET TO A FENCE CORNER; THENCE SOUTH 89° 30' WEST, ALONG A FENCE LINE 975.53 FEET TO A FENCE LINE 40.42 FEET TO A FENCE CORNER; THENCE NORTH 0° 35-1/2' EAST, ALONG A FENCE LINE 40.42 FEET TO A FENCE CORNER; THENCE SOUTH 89° 38 1/2' WEST ALONG A FENCE LINE 784.03 FEET TO THE POINT OF BEGINNING BEING A PART OF FRACTIONAL SECTION 22, T. 8N., R. 1W., M.D.B. & M.

EXCEPTING THEREFROM THE INTEREST CONVEYED BY M.F. ORMSBY, ETAL, TO YOLO COUNTY CONSOLIDATED WATER COMPANY, A CORPORATION, BY DEED DATED APRIL 9, 1904, AND RECORDED IN BOOK 48 OF DEEDS, PAGE 165, YOLO COUNTY RECORDS.

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA, BY DEED RECORDED DECEMBER 21, 1959 IN BOOK 591 OF OFFICIAL RECORDS AT PAGE 334.

ALSO EXCEPTING THEREFROM ALL OF THE OIL, GAS OR OTHER MINERAL RIGHTS OWNED BY E'IN AND TO THE SUBJECT REAL PROPERTY, TOGETHER WITH THE EXCLUSIVE RIGHT TO SUCH MINERAL RIGHTS AS GRANTOR, ITS SUCCESSORS AND/OR ASSIGNS MAY DEEM APPROPRIATE, EXCLUDING THE RIGHT TO ENTER UPON THE SURFACE OF THE SUBJECT PROPERTY FOR ANY PURPOSES OR TO USE SAID SURFACE FOR ANY PURPOSE CONNECTED WITH THE MINERAL RIGHTS OR TO DRILLING ANY WELL OR WELLS FROM THE SURFACE OF SAID REAL PROPERTY PURSUANT TO ANY CLAIM OR OWNERSHIP OF ANY MINERAL RIGHTS RELATED TO SUBJECT PROPERTY. THE POWER AND AUTHORITY RETAINED IN THIS PARAGRAPH SHALL RUN WITH THE OWNERSHIP OF THE MINERAL RIGHTS, AS RESERVED IN DEED FROM YOLOWA FARMS, L.P., A CALIFORNIA LIMITED PARTNERSHIP, RECORDED OCTOBER 26, 1990, IN BOOK 2175 OF OFFICIAL RECORDS AT PAGE 53, INSTRUMENT.

LAND USE SUMMARY

UNIT/ LOT NO.	LAND USE	MIN. LOT SIZE	GROSS ACRES	NET ACRES	UNITS	DENSITY
1	MEDIUM DENSITY RESIDENTIAL	50'x100'	16.1	11.0	90	5.6
2	LOW DENSITY RESIDENTIAL	65'x100'	10.8	8.0	47	4.4
3	LOW DENSITY RESIDENTIAL	65'x100'	12.5	8.9	51	4.1
SUBTOTAL			39.4	27.9	188	4.8
A	TOWNHOMES	-	5.7	5.3	57	10.0
H	HIGH DENSITY RESIDENTIAL	-	4.4	4.1	84	20.0
SUBTOTAL			10.1	9.4	141	10.0
B1-B3	COMMERCIAL	-	3.3	2.9	-	
D	PARK	-	2.0	1.9	-	
E	PARK/DETENTION BASIN	-	4.0	3.9	-	
F	LINEAR PARK	-	0.9	0.9		
G	DRAINAGE CHANNEL	-	2.2	2.0	-	
I & J	LANDSCAPE LOT	-	-	0.3	-	
K	PROPOSED I.O.D.	-	-	0.2		
L, M, N, O	PASEO	-	-	0.4		
ROW	RIGHT-OF-WAY	-	-	12.1	-	
SUBTOTAL			12.4	24.6		
TOTAL			61.9	61.9	329	

*UNIT NET ACREAGE EXCLUDES LANDSCAPE LOTS, PASEOS, AND ALL RIGHT-OF-WAYS.

SUBDIVISION MODIFICATION

1. NON-STANDARD ELBOW (2)
2. IRREGULAR INTERSECTION (2)

LOT SIZE SUMMARY

UNIT	LAND USE	MAX. SF	MIN. SF	AVERAGE
1	MDR	8,798	5,000	5,306
2	LDR	12,439	6,500	7,293
3	LDR	12,287	6,500	7,498
TOTAL				6,766

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

X:\3385-Winters #1\Winters 81 JIA\Planning\Exhibits\Oct. 5\Sht_Mst - 20240102.dwg 1/10/2024 1:10 PM Abby Mammoties

Appendix N

Farmstead Subdivision Project

Transportation Study

Prepared for:
City of Winters

June 2024

SA23-0203

FEHR PEERS

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1. Introduction

This study summarizes the results of the transportation analysis prepared for the proposed Farmstead Subdivision Project (the project) described below. This study is divided into two primary components. First, a transportation impact analysis (Chapter 3), which evaluates potential project impacts to vehicle miles traveled (VMT), impacts to transit, bicycle, and pedestrian components of the transportation system, and impacts to transportation system safety in accordance with the current CEQA Guidelines. Second, a traffic operations analysis (Chapter 4), which evaluates the potential effects of the project with respect to traffic operations (i.e., vehicle delay) on roadway facilities within the vicinity of the project site.

The traffic operations analysis is deliberately separate from the transportation impact analysis in accordance with changes to the CEQA Guidelines resulting from the passage of Senate Bill (SB) 743, which eliminated the use of vehicle delay or level of service (LOS) for the purposes of identifying environmental impacts for land use projects. Instead, the traffic operations analysis addresses the project's consistency with City of Winters General Plan policies related to vehicle traffic operations and LOS.

Proposed Project

The Farmstead Subdivision Project site occupies approximately 62 acres in Winters, California. The project site is bounded by Grant Avenue, or State Route 128 (SR 128) on the south, Timber Crest Road/PG&E Way on the east, Willow Canal on the north, and Morgan Street on the west. The project would be comprised of a mix of uses, including 329 dwelling units and approximately 37,000 square feet of commercial space. Figure 1 presents the project site plan (Illustrative Map Farmstead, Wood Rodgers, January 9, 2024).

The local roadway network would be extended into the project site. Vehicle access to/from Grant Avenue would be provided via East Main Street, Street A, and two right-in/right-out only (RIRO) driveways serving the parcels along the northerly frontage of Grant Avenue west and east of East Main Street. Vehicle access to/from the west would be provided via Street F (also known as Overhouse Drive to/from the west), Broadview Lane, and Colby Lane.

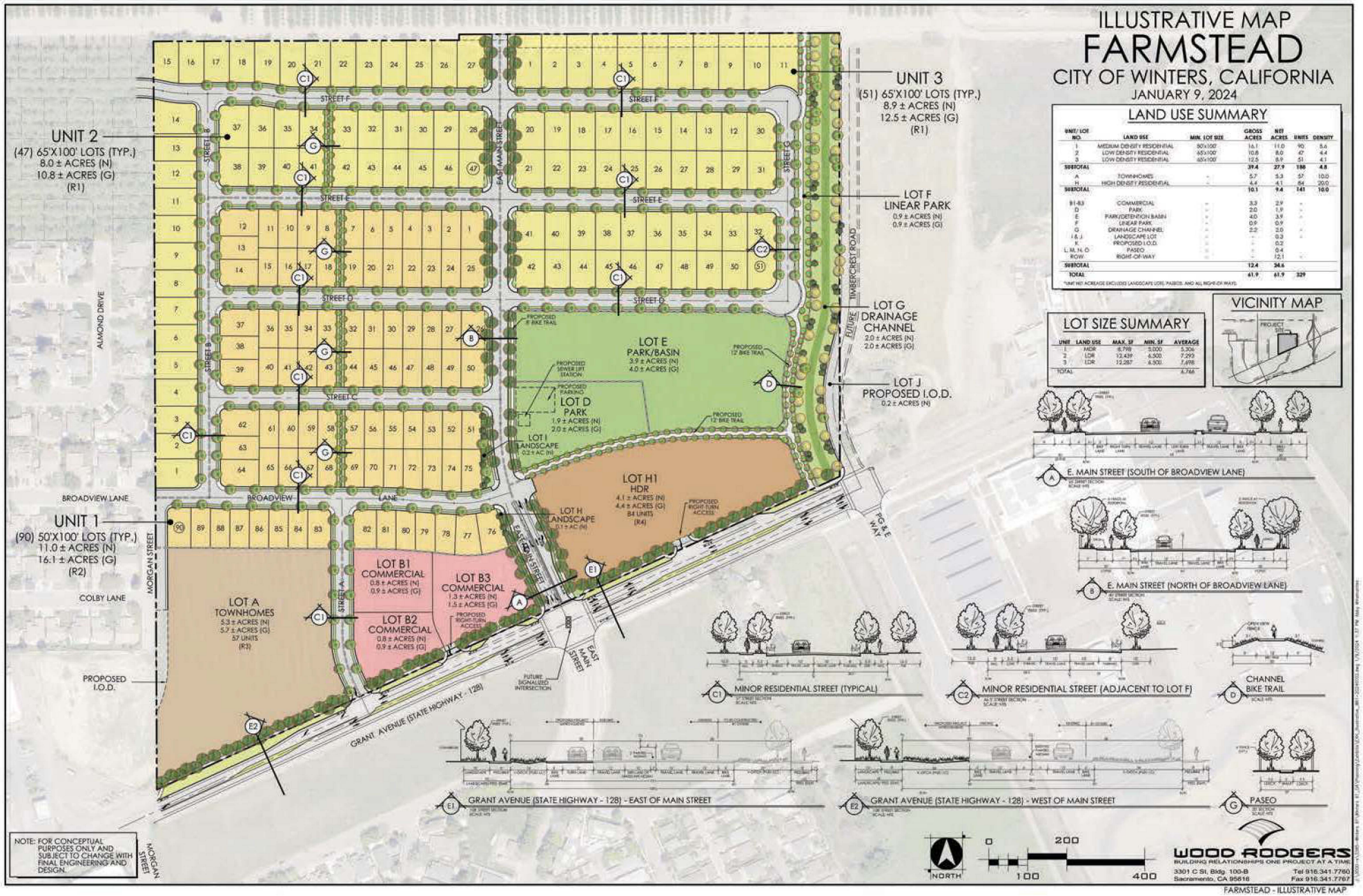


Figure 1

Project Site Plan

2. Existing Conditions

This section describes existing conditions for roadway, transit, bicycle, and pedestrian components of the transportation system.

Roadway System

I-505 is a north-south highway that provides the primary regional access to the City from Vacaville and central Solano County to the south, and from Woodland and I-5 to the north. Through the City, it is a four-lane, divided facility. According to Caltrans average daily traffic (ADT) data from 2017, I-505 carries approximately 24,500 daily trips within the vicinity of the East Grant Avenue interchange. I-505 has a straight alignment through Winters with a grade-separated, partial cloverleaf interchange at East Grant Avenue. The Grant Avenue/I-505 Southbound Ramps intersection is side-street stop-controlled and the Grant Avenue/I-505 Northbound Ramps intersection is signalized. The City of Winters Circulation Master Plan identifies a future traffic signal at the Grant Avenue/I-505 Southbound Ramps intersection (this improvement is also included in the City's impact fee program).

SR-128 (Grant Avenue) is a two-lane arterial running east-west through Winters. Within the City of Winters, SR-128 is referred to as Grant Avenue. Local motorists utilize Grant Avenue as the primary route to I-505, as well as Davis and other regional destinations along the I-80 corridor. SR-128 transitions into Russell Boulevard as it runs east of Winters towards Davis. West of Winters, SR-128 travels past Lake Berryessa and eventually into Napa County. SR-128 is owned, operated, and maintained by Caltrans. The City of Winters Circulation Master Plan plans for East Grant Avenue to be widened to four lanes from East Main Street to I-505 (this improvement is also included in the City's impact fee program).

East Main Street is a two-lane collector utilized for local access to downtown Winters and the adjacent residential neighborhoods. Currently a 'partial-loop' through the southern and northwestern portions of the City, Main Street has long been planned to provide a complete loop through Winters. The Grant Avenue/East Main Street intersection is side-street stop-controlled. The City of Winters Circulation Master Plan identifies a future traffic signal at this intersection (this improvement is also included in the City's impact fee program).

Railroad Avenue is the primary north-south roadway through the City. This two-lane arterial bisects the City, beginning at the Solano County line, crossing Putah Creek, and traveling north through Winters towards Esparto. Local motorists utilize Railroad Avenue for access to the downtown Winters business district. The Grant Avenue/Railroad Avenue intersection is controlled by a traffic signal.

Dutton Street is a two-lane collector road serving industrial and residential uses north of Grant Avenue. The Grant Avenue/Dutton Street intersection is currently side-street stop-controlled. The City of Winters Circulation Master Plan identifies a future roundabout at this intersection.

Walnut Lane is a two-lane collector road serving residential uses north of Grant Avenue and commercial uses south of Grant Avenue. The Grant Avenue/Walnut Lane intersection is controlled by a roundabout.

Morgan Street is a two-lane local road serving residential uses south of Grant Avenue. The Grant Avenue/Morgan Street intersection is currently side-street stop-controlled. The City of Winters Circulation Master Plan identifies a future roundabout at this intersection (this improvement is also included in the City's impact fee program) and envisions the extension of Morgan Street north of Grant Avenue.

Timber Crest Road/PG&E Way is a two-lane collector road serving the PG&E Gas Safety Academy. The Grant Avenue/Timber Crest Road/PG&E Way intersection is controlled by a traffic signal. The City of Winters Circulation Master Plan envisions extending Timber Crest Road north of Grant Avenue.

Matsumoto Lane/County Road 90 (CR 90) is a two-lane collector road that serves highway commercial uses north of Grant Avenue. The Grant Avenue/Matsumoto Lane/County Road 90 intersection is controlled by a traffic signal.

Transit System

The Yolo County Transportation District (YoloTD) provides public transit service (Yolobus) in the City of Winters. Currently, the City of Winters is served by the Yolobus YOUR Ride on-demand microtransit service. The service provides point-to-point rides within Winters (including the adjacent El Rio Villa community) and to/from the cities of Davis and Vacaville. All trips must begin or end in Winters. The service is available Monday through Saturday between 8:30 A.M. and 4:30 P.M.

No transit stops are located adjacent to the project site. The closest bus stops to the project site are located on Grant Avenue east of Timber Crest Road/PG&E Way and on Grant Avenue west of Morgan Street.

YoloGO, the future service plan for Yolobus service throughout Yolo County, recommends the reinstatement of Route 220C, a commuter bus route that connected Winters with the City of Davis and UC Davis prior to the COVID-19 pandemic.

Bicycle System

Caltrans recognizes four classifications of bikeway facilities, as described below:

- **Class I – Shared-Use Paths** provide a separate right-of-way for the exclusive use of people walking and bicycling. They tend to have minimal intersecting vehicle traffic and are often considered the lowest-stress facilities for people walking and bicycling.
- **Class II – Bike Lanes** designate an exclusive space for bicyclists through the use of pavement markings and signage. Bike lanes are located adjacent to motor vehicle travel lanes and flow in the same direction as motor vehicle traffic. Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane.
- **Class III – Bike Routes** are designated streets where bicyclists and automobile drivers are encouraged to share the road. The routes are typically designated with signage, but some streets also use sharrows to indicate where bicyclists should position themselves on the road.
- **Class IV – Separated Bikeways** are often referred to as "cycle tracks" and are a relatively new class of bicycle facility. They have different forms but all share common elements—they provide space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. Separated bikeways are typically situated between the motor vehicle travel lane/parking lane and the sidewalk.

Bicycle facilities are not currently present within the immediate project site vicinity. A shared-use path is provided on the south side of Grant Avenue between East Main Street and McClish Lane and between Timber Crest Road/PG&E Way and Matsumoto Lane/County Road 90.

The City of Winters Bikeway System Master Plan (City of Winters, 2013) identifies future bicycle facility improvements throughout the City. Additionally, the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan (Caltrans, 2010) identifies bicycle facility improvements along Grant Avenue between Railroad Avenue and I-505. Both plans identify the construction of both Class I shared-use paths and Class II bike lanes on Grant Avenue between Railroad Avenue and I-505 and the construction of Class II bike lanes on East Main Street.

Pedestrian System

Pedestrian facilities are generally limited and discontinuous within the study area. The north side of Grant Avenue lacks continuous sidewalks between Walnut Lane and Matsumoto Lane/County Road 90 and the south side of Grant Avenue lacks continuous sidewalks between Morgan Street and Timber Crest Road/PG&E Way.

Marked crosswalks across Grant Avenue are provided at Walnut Lane, Timber Crest Road/PG&E Way, and Matsumoto Lane/County Road 90. Within the immediate project site vicinity, Grant Avenue lacks marked crosswalks for an approximately one-half mile stretch between Walnut Lane and Timber Crest Road/PG&E Way.

The City of Winters Bikeway System Master Plan and the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan identify future bicycle/pedestrian improvements on Grant Avenue between Railroad Avenue and I-505, including the construction of Class I shared-use paths and/or sidewalks. Additionally, intersection traffic control and pedestrian crossing improvements are identified at several intersections along Grant Avenue, including Dutton Street, Morgan Street, Walnut Lane, East Main Street, and Timber Crest Road/PG&E Way.

Collision History

According to the Statewide Integrated Traffic Records System (SWITRS), 13 injury collisions were reported within the study area (the area contained within a one-quarter mile buffer around Grant Avenue between Railroad Avenue and I-505) between 2018 and 2022. Table 1 provides a summary of the collisions, including their location, parties involved, and primary collision factor. Four of the 11 collisions were due to unsafe speed, four due to improper turning, and two due to automobile right-of-way. There was one fatal collision and two severe injury collisions. One reported collision involved a bicycle and two reported collisions involved a pedestrian. Concentrations of collisions in the study area occurred on Grant Avenue near the I-505 interchange and at Railroad Avenue.

The fatal collision occurred on Grant Avenue between Walnut Lane and Morgan Street and involved a pickup/panel truck completing an eastbound left-turn and a passenger vehicle traveling westbound on Grant Avenue. The collision was a broadside collision. The truck driver was at fault and the primary collision factor was automobile right-of-way.

Table 1: Five-Year Injury Collision History Near Project Site

Location	Parties[1]	Type	Primary Collision Factor	Year
Grant Avenue at 1st Street	**Vehicle**, Vehicle	Rear End	Unsafe Speed	2018
Grant Avenue at Railroad Ave	**Motorcycle/Scooter,** Vehicle	Broadside	Improper Passing	2021
Grant Avenue at Railroad Ave	Vehicle, **Bicycle**	Broadside	Improper Turning	2021
Railroad Avenue at E Baker St	**Vehicle**, Pickup/Panel Truck	Broadside	Automobile Right-of-Way	2020
Grant Avenue at Walnut Lane	**Vehicle**, Vehicle	Rear End	Driving Under the Influence of Alcohol or Drug	2018
Grant Avenue West of Morgan Street	**Pickup/Panel Truck,** Vehicle	Broadside	Automobile Right-of-Way	2020
Morgan Street South of Baker Street	**Vehicle,** Vehicle	Rear End	Improper Turning	2018
Grant Avenue at PG&E Way	**Vehicle,** Vehicle	Broadside	Traffic Signals and Signs	2022
Grant Avenue East of PG&E Way	**Vehicle,** Pickup/Panel Truck, Pickup/Panel Truck	Rear End	Unsafe Speed	2022
I-505 SB On-Ramp from EB SR 128	**Vehicle,** Vehicle, Motorcycle/Scooter	Sideswipe	Unsafe Speed	2021
I-505 SB On-Ramp from EB SR 128	**Pickup/Panel Truck**	Overturned	Improper Turning	2021
I-505 NB Off-Ramp to SR 128	**Vehicle,** Pickup/Panel Truck	Broadside	Unsafe Speed	2021
I-505 NB On-Ramp from EB SR 128	**Motorcycle/Scooter**	Overturned	Improper Turning	2022

Notes: [1] **Bold** party identified as party at-fault. Grey denotes fatal or severe injury collision.
Source: Statewide Integrated Traffic Records Database, 2023.

3. Transportation Impact Analysis

Regulatory Setting

Federal

No federal plans, policies, regulations, or laws related to transportation and circulation apply to the project. However, federal regulations relating to the Americans with Disabilities Act, Title VI, and environmental justice relate to transit service.

State

The State of California has enacted several pieces of legislation that outline the state's commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and contribute to reductions in greenhouse gas (GHG) emissions in line with state climate goals. This legislation includes the following.

- Assembly Bill (AB) 32 (2006)
- Senate Bill (SB) 375 (2008)
- SB 226 (2011)
- SB 743 (2013)

Assembly Bill 32

AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires the following.

(a) the statewide GHG emissions limit shall remain in effect unless otherwise amended or repealed.

(b) it is the intent of the Legislature that the statewide GHG emissions limit continues in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020.

(c) the CARB shall make recommendations to the Governor and the Legislature on how to continue reductions of GHG emissions beyond 2020.

Senate Bill 375

SB 375 requires metropolitan planning organizations (MPOs) to prepare a sustainable communities strategy (SCS) as part of their regional transportation plans (RTPs). The SCS demonstrates how the region will meet its GHG reduction targets through integrated land use, housing, and transportation planning.

Specifically, the SCS must identify a transportation network that is integrated with the forecasted development pattern for the plan area and will reduce GHG emissions from automobiles and light trucks in accordance with targets set by the California Air Resources Board (CARB).

In 2017, the State Legislature passed SB 150, which requires CARB to prepare a report beginning in 2018 and every 4 years thereafter analyzing the progress made by each MPO in meeting regional GHG emission reduction targets.

The Sacramento Area Council of Governments (SACOG) serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands in the Lake Tahoe Basin. The City of Winters is in Yolo County and therefore is within the SACOG MPO.

SB 375 also provides streamlining (i.e., limited CEQA review) for certain transit priority projects that are consistent with the SCS.

Senate Bill 226

SB 226 revises the State CEQA Guidelines to set forth a streamlined review process for infill projects, including performance standards to determine an infill project's eligibility for that streamlined review. One of the requirements for streamlined review is that the project be consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a SCS or an alternative planning strategy.

Senate Bill 743

SB 743 creates or encourages several statewide changes to the evaluation of transportation and traffic impacts under CEQA. First, it directs the Governor's Office of Planning and Research (OPR) to amend the State CEQA Guidelines to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the new metrics beyond TPAs. In the amended State CEQA Guidelines, OPR selected VMT as the preferred transportation impact metric and applied its discretion to recommend the use of VMT statewide. The California Natural Resources Agency certified and adopted the amended State CEQA Guidelines in December 2018. The amended State CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts" and the provisions requiring the use of VMT applied statewide as of July 1, 2020. The amended State CEQA Guidelines further state that land use "projects within 0.5 mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less-than-significant transportation impact."

Second, SB 743 establishes that aesthetic and parking impacts of a residential, mixed-use residential, or employment center projects on an infill site within a TPA shall not be considered significant impacts on the environment.

Third, SB 743 added Section 21099 to the Public Resources Code, which states that automobile delay, as described by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment upon certification of the State CEQA Guidelines by the California Natural Resources Agency. Since the amended State CEQA Guidelines were certified in December 2018, changes in LOS or similar measures of vehicular capacity or traffic congestion are not considered a significant impact on the environment.

Lastly, SB 743 establishes a new CEQA exemption for a residential, mixed-use, and employment center project (a) within a TPA, (b) consistent with a specific plan for which an EIR has been certified, and (c) consistent with an SCS. This exemption requires further review if the project or circumstances changes significantly.

Technical Advisory on Evaluating Transportation Impacts in CEQA

To aid in SB 743 implementation, OPR released a Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) in December 2018. The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use these recommendations at their discretion.

The Technical Advisory identifies screening thresholds to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests that projects meeting one or more of the following criteria should be expected to have a less-than-significant impact on VMT.

- Small projects—projects consistent with a SCS and local general plan that generate or attract fewer than 110 trips per day.
- Projects near major transit stops—certain projects (residential, retail, office, or a mix of these uses) proposed within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor.
- Affordable residential development—a project consisting of a high percentage of affordable housing may be a basis to find a less-than-significant impact on VMT.

- Local-serving retail—local-serving retail development tends to shorten trips and reduce VMT. The Technical Advisory encourages lead agencies to decide when a project will likely be local-serving, but generally acknowledges that retail development including stores larger than 50,000 square feet might be considered regional-serving. The Technical Advisory suggests lead agencies analyze whether regional-serving retail would increase or decrease VMT (i.e., not presume a less-than-significant impact).
- Projects in low-VMT areas—residential and office projects that incorporate similar features (i.e., density, mix of uses, transit accessibility) as existing development in areas with low VMT will tend to exhibit similarly low VMT.

The Technical Advisory also identifies recommended numeric VMT thresholds for residential, office, and retail projects, as described below.

- Residential development that would generate vehicle travel exceeding 15 percent below existing residential VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as a regional VMT per capita or as city VMT per capita.
- Office projects that would generate vehicle travel exceeding 15 percent below existing regional VMT per employee may indicate a significant transportation impact.
- Retail projects that result in a net increase in total VMT may indicate a significant transportation impact.

For mixed-use projects, the Technical Advisory suggests evaluating each component independently and applying the significance threshold for each project type included. Alternatively, the lead agency may consider only the project's dominant use.

The Technical Advisory also provides guidance on impacts to transit. Specifically, the Technical Advisory suggests that lead agencies generally should not treat the addition of new transit users as an adverse impact. As an example, the Technical Advisory suggests the following.

> [An] infill development may add riders to transit systems and the additional boarding and alighting may slow transit vehicles, but it also adds destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network. (Governor's Office of Planning and Research 2018)

<u>California Department of Transportation</u>

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining the State Highway System (SHS). Within the study area, Grant Avenue (SR 128) and I-505 are components of the SHS. Federal highway standards are implemented in

California by Caltrans. Any improvements or modifications to the SHS within the project vicinity would need to be approved by Caltrans. The following Caltrans planning documents emphasize the State of California's focus on transportation infrastructure that supports mobility choice through multimodal options, smart growth, and efficient development.

- Smart Mobility 2010: A Call to Action for the New Decade (Smart Mobility Framework) (California Department of Transportation 2010a).
- Complete Streets Implementation Action Plan (California Department of Transportation 2010b).
- California Transportation Plan 2040 (California Department of Transportation 2016a).
- Strategic Management Plan 2015-2020—2019 Update (California Department of Transportation 2019a).

VMT-Focused Transportation Impact Study Guide

On May 20, 2020, Caltrans adopted the VMT-Focused Transportation Impact Study Guide (TISG) to provide updated guidance to Caltrans Districts, lead agencies, tribal governments, developers, and consultants based on changes to the agency's review process for transportation analysis of land use projects and plans under the updated State CEQA Guidelines. The TISG outlines how Caltrans will review land use projects with a focus on supporting state land use goals, state planning priorities, and GHG emission reduction goals; the TISG identifies land use projects' possible transportation impacts on the SHS and potential non-capacity increasing mitigation measures. The TISG emphasizes that VMT analysis is the primary review focus of Caltrans and references OPR's Technical Advisory as a basis for the guidance in the TISG. Notably, the TISG recommends use of the recommended thresholds in the Technical Advisory for land use projects. The TISG also references the Technical Advisory for screening thresholds that would identify projects and areas presumed to have a less-than-significant transportation impact. Caltrans supports streamlining for projects that meet these screening thresholds because they help achieve VMT reduction and mode shift goals.

Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance

On December 18, 2020, Caltrans released the Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance (Safety Guidance) to provide updated guidance to Caltrans Districts, lead agencies, developers, and consultants conducting safety review for proposed land use projects and plans that would affect the State Highway System. The interim guidance recommends that safety analyses include a review of three primary elements related to transportation safety—design standard compliance, collision history, and collision risk (consistent with the Federal Highway Administration's Systemic Approach to Safety). The interim guidance does not establish specific analysis methods or significance

thresholds for determining safety impacts under CEQA. Additionally, Caltrans notes that local agencies may use the interim guidance at their own discretion as a guide for review of local facilities.

Regional and Local

Sacramento Area Council of Governments

SACOG is the MPO governing the six-county Sacramento region consisting of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties and their 22 cities. SACOG is responsible for the preparation of, and updates to, the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (Sacramento Area Council of Governments 2019) and the associated Metropolitan Transportation Improvement Program (MTIP) for the six-county region. The SACOG 2020 MTP/SCS provides a 20-year transportation vision and corresponding list of transportation projects. The MTIP identifies short-term projects (i.e., projects with a 7-year horizon) in more detail. The current SACOG 2020 MTP/SCS was adopted by the SACOG board on November 18, 2019.

The SACOG 2020 MTP/SCS (Sacramento Area Council of Governments 2019) provides the basis for air quality conformity findings related to the national Clean Air Act and determinations of whether the region is complying with GHG reduction targets for automobiles and light trucks established under SB 375. Major projects that are inconsistent with the plan could jeopardize the plan's effectiveness for air pollution and GHG reduction. Consequently, consistency with the MTP/SCS is a potential basis for determining adverse impacts related to these environmental topics.

The SACOG 2020 MTP/SCS acknowledges the following.

> A more compact land development pattern and providing alternatives to driving alone are critical strategies for reducing the amount of driving we do in our daily lives. Location within the region is likely the most important variable in determining how much time people spend in their vehicles. Communities within existing urban areas, and with a mix and density of uses, tend to produce less VMT per resident than places that are farther away and spread out. These "lower VMT" areas also tend to have the density and mix of uses to support better transit service and are friendlier to biking and walking for some trips. (Sacramento Area Council of Governments 2019)

To this end, the SACOG 2020 MTP/SCS includes figures showing the distribution of VMT generation in the SACOG region presented in VMT per capita. One figure presents the VMT generation for the base year (2016), and one presents the VMT generation in the horizon year of the MTP/SCS (2040).

City of Winters General Plan

The City of Winters General Plan was adopted in 1992 and sets forth overarching goals and objectives related to transportation and circulation in the context of planned land use within the City. The General

Plan guides the development of new roads and roadway modifications to serve long-term needs of Winters. The General Plan also provides direction for multimodal implementation.

All of the study intersections and roadway segments are subject to the City of Winters' level of service (LOS) standards. The City of Winters General Plan identifies LOS D conditions as the threshold service level throughout the City. The Yolo County Congestion Management Plan identifies LOS D conditions as the threshold service level for Intersections located along Grant Avenue (State Route 128).

Relevant transportation policy statements from the General Plan are provided below.

- Goal III.A. To create and maintain a roadway network that will ensure the safe and efficient movement of people and goods throughout the city.
- Goal III.G. To promote pedestrian and bicycle travel as alternatives to automobile use.
- Policy III.A.9. The City shall require street designs consistent with principles of interconnected network path design. The City shall insure that there are multiple, local street access points to all developments throughout the city. The City shall insure that direct access to all local streets from primary and secondary collectors is maintained. At the discretion of the City, alleys may be used in conjunction with the overall street layout.
- Policy III.A.10. Street designs should promote pedestrian and bicycle travel and should emphasize safety over travel speed and capacity. Collector streets should not be used as separators of neighborhoods.
- Policy III.B.3. The City shall require bus turnouts and shelters in higher density residential and commercial areas and other areas deemed appropriate.
- Policy III.G.1. The City shall create and maintain a safe and convenient system of pedestrian and bicycle routes that encourages walking or bicycling as an alternative to driving. The pedestrian and bicycle system shall connect all residential areas, schools, and shopping and employment areas in the city. The bicycle system shall favor on-street bike lanes over separated bike paths. New development shall be required to pay its share of the costs for development and maintenance of this system.
- Policy III.G.2. The City shall require installation of sidewalks along all streets in all newly developing areas.
- Policy III.G.6. The City shall require inclusion of bicycle parking facilities at all new major public and quasi-public facilities and commercial and employment sites. Major employers shall be encouraged to provide showers and lockers in their facilities to encourage biking.

- Policy V.A.15. The City shall pursue the development of a citywide network of pedestrian and bicycle pathways and equestrian trails. The pedestrian and bicycle pathway and trail system

should be designed to link parks, schools, civic and major shopping and employment centers. The City's bicycle pathway system should be integrated with the countywide bikeway system.

City of Winters Circulation Master Plan

The City of Winters Circulation Master Plan (2017) identifies several roadway network modifications within the study area:

- Extension of East Main Street and Timber Crest Road north of Grant Avenue
- Construction of Moody Slough Road between County Road 88 and Matsumoto Road
- Widening of Grant Avenue from two to four lanes between East Main Street and I-505
- Installation of new traffic signals at the following intersections:
    - Grant Avenue/East Main Street
    - Grant Avenue/I-505 Southbound Ramps
    - East Main Street/Moody Slough Road
    - Timber Crest Road/Moody Slough Road
- Installation of new roundabouts at the following intersections:
    - Grant Avenue/Dutton Street
    - Grant Avenue/Morgan Street

City of Winters Design Guidelines

The City of Winters Design Guidelines (1999) provide the community design expectations for the development of commercial and residential areas in Winters. The Design Guidelines include the following transportation-related guidance and requirements for the Grant Avenue corridor between Dutton Street and I-505 (i.e., within the immediate project site vicinity):

- Vision Statement: A transition from highway commercial to pedestrian commercial is envisioned as one moves towards the western sections of the corridor from I-505.
- Circulation Access: To keep traffic flowing freely, ingress and egress to adjacent properties on Grant Avenue shall be carefully planned. Individual driveways will be allowed only where previously existing or where they represent the only feasible access and are consistent with Caltrans regulations. Joint driveways may be permitted if necessary, but should be kept to a minimum. The preference is for Grant Avenue frontage parcels to get their access via the adjacent cross streets which run perpendicular to Grant Avenue. Median left turn lanes will be provided to ensure easy access and maximum circulation efficiency.

- Street Standards: Grant Avenue will be a 4-lane arterial,[1] with pavement from 66 to 84 feet, and a 106 to 124 foot wide right-of-way. A landscaped center median with left turn pockets will be provided along the corridor
- Bicycles: Grant Avenue is a significant street for bicycle traffic. Bicycle lanes will be clearly marked adjacent to the sidewalk curb in each direction
- Pedestrians: Pedestrians will be provided with a sidewalk on each side of Grant Avenue. Crosswalks will be paved with contrasting materials in order to alert motorists to pedestrian safety and to provide architectural texture and community character. Crosswalk signalization will be provided at all through cross streets. Attention to pedestrian access shall be emphasized in the western sections of the corridor.

Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan

Caltrans prepared the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan (2010) to identify multi-modal transportation improvements along the Grant Avenue corridor. The plan was prepared for Caltrans and the City of Winters and adopted by the Winters City Council in February 2011. The plan includes the following future transportation improvements within the study area:

- Widening of Grant Avenue from two to four lanes between East Main Street and I-505
- Construction of Class I shared-use paths and Class II bike lanes on both side of Grant Avenue
- Construction of new roundabouts at Grant Avenue intersections with Dutton Street, Walnut Lane (since constructed), and Morgan Street
- Installation of new traffic signals at Grant Avenue intersections with East Main Street, Timber Crest Road (since constructed) and I-505 Southbound Ramps

City of Winters Grant Avenue Design Guidelines

The City of Winters Grant Avenue Design Guidelines (2011) establish guidance to property owners and design professionals in planning and designing new building and remodeling existing structures within the Grant Avenue Economic Development Advisory Project Area. This area generally covers the Grant Avenue corridor between Railroad Avenue and I-505 and includes the project's Grant Avenue frontage parcels.

The City of Winters Grant Avenue Design Guidelines include the following transportation-related elements that pertain to the project:

[1] Note that this standard is based on the City's Circulation Master Plan at the time of the publication of the Design Standards. Recent medications to the Circulation Master Plan now plan for the widening of Grant Avenue to four lanes between East Main Street and I-505.

- Connectivity
    - Provide for pedestrian, bicycle, and vehicle travel within the Grant Avenue corridor.
    - In proposing a project, applicants shall consider and demonstrate how the development will connect with the Grant Avenue Complete Streets Concept Plan, Class I and II bikeways, pedestrian/bicycle facilities within the project and with bordering facilities, and the Putah Creek Park Master Plan and Trail System.
    - As a priority, developments should provide direct connection with bicycle/pedestrian facilities that border the project site, minimize bicycle/pedestrian and vehicular conflicts within and external to the project, reduce vehicular ingress/egress from the project, and create effective circulation/flow within the project.
- Vehicular Circulation
    - Provide separate vehicular and pedestrian circulation systems with a strong emphasis on pedestrian linkages between uses.
    - The City of Winters wishes to minimize conflicts for excessive ingress/egress locations along Grant Avenue. Projects shall consider alternatives to Grant Avenue such as arterials (East Main Street, Timber Crest Road, or Walnut Lane).
    - Locate additional site access points as far as possible from street intersections to minimize conflicts. More than one access to a site from a public street may be permitted when the additional access will not be hazardous to the safety and operation of the street or pedestrians and when it facilitates the integration of commercial development into the community.
- Bicycle Circulation and Parking
    - Bicycle paths and routes shall be designed to provide continuous circulation through the site separated from vehicle travel ways, wherever feasible.
- Pedestrian Circulation
    - Continuous pedestrian walkways shall be provided to connect the public sidewalk to the principal customer entrances at each tenant space. Drive aisles should not be uses as pedestrian walkways.
    - Sidewalks and pedestrian ways shall be scaled to the use and expectations of pedestrian volumes in any given location with the minimum width of the sidewalk and pedestrian ways no less than 5 feet, and no less than 8 feet where multi-use is proposed.

City of Winters Bikeway System Master Plan

The current version of the Bikeway System Master Plan was approved by the City of Winters City Council in 2013. The applicable transportation policy statements from this document are described below.

- Goal 3. Encourage a community culture that supports the use of bicycling as a major mode of transportation throughout the city.
- Goal 4. Establish a well-connected bikeways system that is well-integrated with other modes of transportation and other alternative modes of transportation.
- Goal 6. Create a convenient and safe bikeway system that aims to reduce vehicle congestion, improve air quality and improve individual physical fitness.

The 2013 Bikeway System Master Plan identifies five priority projects as follows. A portion of the first two projects described below are located along the project frontage on Grant Avenue.

- Grant Avenue (SR 128) from East Main Street to I-505 – Class I/II bike lanes and pedestrian facilities
- Grant Avenue (SR 128) from Railroad Avenue to East Main Street – Bike/pedestrian upgrade
- Grant Avenue (SR 128) from I-505 to El Rio Villa-Yolo Housing – Class I trail
- Putah Creek Pedestrian and Bike Bridge – Class I trail
- West Section of Main Street – Class I trail

Yolo County Transportation District

The Yolo County Transportation District (YoloTD) provides public transit service (Yolobus) in the City of Winters. YoloTD recently prepared YoloGO (2021), the future service plan for Yolobus service throughout Yolo County. YoloGO recommends the reinstatement of Route 220C, a commuter bus route that connected Winters with the City of Davis and UC Davis prior to the COVID-19 pandemic.

Thresholds of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. For the purposes of this analysis, an impact is considered significant if implementation of the project would have any of the effects described below.

The standards of significance in this analysis are based upon the current practice of the appropriate regulatory agencies as described in the Regulatory Setting section. For most areas related to transportation and circulation, policies from the City of Winters' General Plan have been used. For the State Highway System, Caltrans' standards were used.

Vehicle Miles Traveled Impacts

State CEQA Guidelines Section 15064.3, subdivision (b) outlines criteria for analyzing transportation impacts using VMT. For land use projects, VMT exceeding an applicable threshold of significance may indicate a significant impact.

The City of Winters has not formally adopted guidance or thresholds related to VMT impact analysis (i.e., tailored screening criteria, preferred metrics and calculation methods, and use-specific thresholds). Therefore, this analysis relies on guidance from the Technical Advisory. Per the Technical Advisory, the project would result in a significant impact if it would do any of the following.

- Generate vehicle travel exceeding 15 percent below existing regional household VMT per capita for residential uses.
- Generate vehicle travel exceeding 15 percent below existing regional work VMT per employee for employment uses.
- Include retail development that would result in a net increase in total VMT.

Transit System Impacts

The project would result in a significant transportation impact if it would do any of the following.

- Physically disrupt an existing transit service/facility.
- Interfere with the implementation of a planned transit service/facility.
- Create an inconsistency with the transit policies or standards of plans adopted by the City of Winters, YoloTD, or Caltrans.

Bicycle and Pedestrian System Impacts

The project would result in a significant transportation impact if it would do any of the following.

- Physically disrupt an existing bicycle or pedestrian facility.
- Interfere with the implementation of a planned bicycle or pedestrian facility.
- Create an inconsistency with the bicycle or pedestrian policies or standards of plans adopted by the City of Winters or Caltrans.

Transportation System Safety Impacts

The project would result in a significant transportation impact if it would do any of the following.

- Result in a geometric design feature that is inconsistent with applicable design standards.
- Result in a change to the volume, mix, or speed of traffic that is not compatible with the existing facility design.

Methods of Analysis

The transportation impact analysis methodology includes a combination of quantitative and qualitative evaluations of the transportation system. The specific analysis methods are described below.

Project Description

The proposed Farmstead Subdivision Project would include the construction of 329 dwelling units (57 units of townhomes, 98 units of low density residential, 90 units of medium density residential, 84 units of high density residential) and approximately 37,000 square feet of commercial space. Low and medium density residential uses would be located on the northern portion of the project site, while the townhomes, high density residential, and commercial uses would be concentrated on the Grant Avenue frontage parcels. Refer to Figure 1 for a project site.

Roadway System Modifications

The local roadway network would be extended into the project site. East Main Street would be extended north of Grant Avenue into the project site, terminating at the northerly boundary of the project site. New Street A would be constructed north of Grant Avenue into the project site west of East Main Street. Colby Lane, Broadview Lane, and Street F (Overhouse Drive) would be extended east into the project site from existing and planned residential areas located west of the project site.

The project would modify Grant Avenue between Morgan Street and Timber Crest Road/PG&E Way. Westbound Grant Avenue would be widened to two lanes from Timber Crest Road/PG&E Way to immediately west of Street A and eastbound Grant Avenue would be widened to two lanes from East Main Street to Timber Crest Road/PG&E Way. On Grant Avenue between Morgan Street and Street A, the project would maintain the existing three-lane cross section with two lanes in each direction and a two-way left-turn lane (TWLTL) and add a raised center median.

The Grant Avenue/East Main Street and Grant Avenue/Street A intersections would be the primary vehicular access points to/from the project site via Grant Avenue. Grant Avenue/East Main Street is an existing side-street stop-controlled intersection located approximately 675 feet west of the Grant Avenue/Timber Crest Road/PG&E Way intersection. The project site plan indicates that a future traffic signal would be installed at the Grant Avenue/East Main Street intersection. It is assumed that the traffic signal and accompanying new pedestrian crossings would not be constructed as part of the project. Vehicle ingress would be provided via westbound right-turn, northbound through, and eastbound left-turn maneuvers. Vehicle egress would be provided via a southbound left-turn lane, a through lane, and a right-turn lane. Grant Avenue/Street A would be a new intersection constructed approximately 490 feet west of the Grant Avenue/East Main Street intersection and 590 feet east of the Grant Avenue/Morgan

Street intersection. This intersection would be side-street stop-controlled. Vehicle ingress would be provided via westbound right-turn and eastbound left-turn maneuvers. Vehicle egress would be provided via southbound right-turn maneuvers only.

Grant Avenue/Project Driveway West would provide RIRO access to the Lots B1 through B3 commercial parcels located north of Grant Avenue between Street A and East Main Street. The driveway would be located approximately 210 feet east of Street A and 235 feet west of East Main Street.

Grant Avenue/Project Driveway East would provide RIRO access to the Lot H1 high density residential parcel located north of Grant Avenue and east of East Main Street. The driveway would be located approximately 300 feet east of East Main Street and 415 feet west of Timber Crest Way/PG&E Way. A westbound right-turn pocket would be provided at the driveway.

Note that the roadway and driveway spacing measurements above are provided between the proposed roadway/driveway centerline and the near curb return of the adjacent intersection.

The project would construct a Class I shared-use path and a westbound Class II bike lane along its Grant Avenue frontage between Morgan Street and Timber Crest Road/PG&E Way. Class II bike lanes would be provided on East Main Street north of Grant Avenue. The project would construct a north-south Class I shared-use path along the eastern edge of the project site between the northwest corner of the Grant Avenue/Timber Crest Road/PG&E Way intersection and the northern project site boundary.

The project would include the construction of a new bus stop and turnout on westbound Grant Avenue west of East Main Street.

Project Phasing

The project would be developed in the following three phases (Preliminary Phasing Plan Farmstead, Wood Rodgers, January 10, 2024):

- Phase 1
    - Modifications to Grant Avenue between East Main Street and PG&E Way, inclusive of the Grant Avenue/East Main Street intersection
    - East Main Street extension north of Grant Avenue to northerly project site boundary
    - Broadview Lane extension east of Morgan Street
    - Street F (Overhouse Drive) connection between the Walnut Lane 10 project site and East Main Street
    - Construction of Street B and Streets C, D, E, and F between Street B and East Main Street
    - Development of residential parcels fronting the roadways listed above, including high density residential on Lot H1
- Phase 2
    - East Main Street extension to northerly project site boundary
    - Construction of Streets D, E, and F east of East Main Street
    - Development of residential parcels fronting the roadways listed above
- Phase 3
    - Modifications to Grant Avenue between Morgan Street and East Main Street
    - Construction of Street A
    - Development of townhomes on Lot A
    - Development of commercial uses on Lots B1, B2, and B3

Table 2 summarizes the proposed land use quantities during each phase of development.

Table 2: Farmstead Subdivision Project – Project Phasing Land Use Summary

Phase	Residential Uses (Dwelling Units)				Commercial Uses (Square Feet)
	Townhomes	Low Density	Medium Density	High Density	
1	0	47	90	84	0
2	0	51	0	0	0
3	57	0	0	0	37,000
Total	**57**	**98**	**90**	**84**	**37,000**

Source: *Preliminary Phasing Plan Farmstead, Wood Rodgers, January 10, 2024.*

Project Travel Characteristics

For the purposes of the traffic operations analysis described in Chapter 4, project trip generation was estimated using the City of Winters local travel demand model. This process entailed adding the project land uses into the travel demand using the most applicable model land use categories and applying the associated model vehicle trip rates to the project land uses. This process also entailed updating the model trip purpose, internal-external and external-internal (IX/XI) trips, and gateway trip inputs to ensure that the inclusion of the project maintained an appropriate model-wide trip productions-attractions balance.

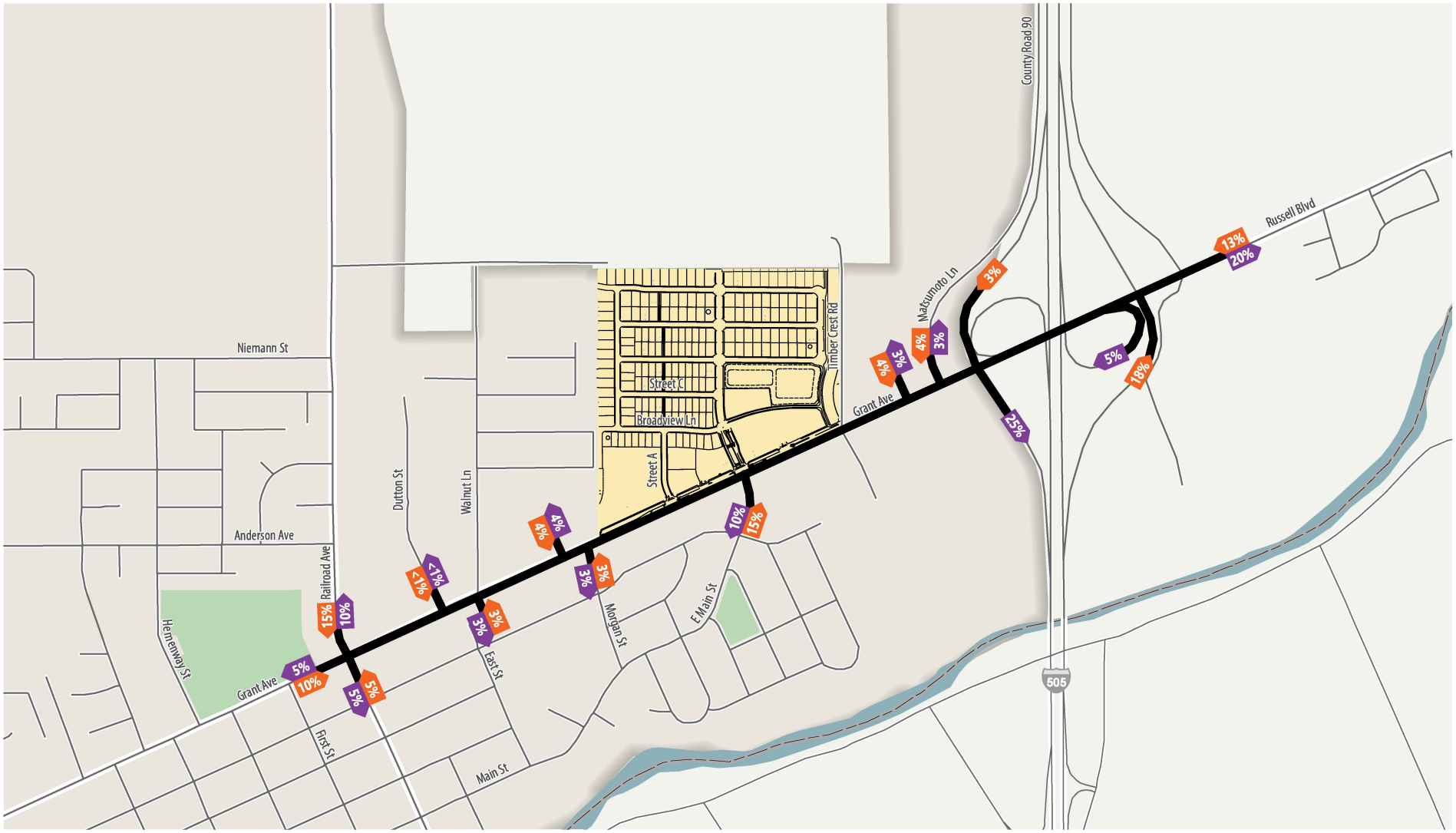
Table 3 summarizes the project trip generation estimates. At buildout, the project would generate 4,767 daily, 263 a.m. peak hour, and 451 p.m. peak hour gross vehicle trips. Note that the actual number of new project-generated trips on the surrounding roadway network would be less than the gross vehicle trip estimates when accounting for commercial pass-by trips as well as changes to City of Winters IX/XI trip percentages that would result from the project. In particular, the project would result in a decrease in the percentage of IX/XI home-based-other trips by virtue of introducing new commercial uses within Winters. This would cause a portion of existing IX/XI home-based-other trips (e.g., shopping trips originating at a household in Winters and traveling on southbound I-505 to shopping destinations in Vacaville) to shift to internal trips that occur entirely within Winters. These would not appear as new trips on the roadway network, but rather existing trips that are reassigned to and from the project site.

The distribution of new vehicle trips onto the roadway system is based on trip assignments derived from the City of Winters travel demand model. Figures 2 and 3 illustrate PM peak hour trip distribution for the project's residential and commercial components, respectively. A large share of project-generated vehicle trips would travel to and from I-505 via Grant Avenue as well as Russell Boulevard towards Davis.

Table 3: Farmstead Subdivision Project – Vehicle Trip Generation Summary

Project Land Uses (Project Site Plan)		Project Land Uses (City of Winters Travel Demand Model)		Gross Vehicle Trips		
Type	Quantity[1]	Type	Quantity[1]	Daily	AM Peak Hour	PM Peak Hour
Townhomes	57 DUs	Single Family Residential	245 DUs	2,400	160	210
Low Density Residential	98 DUs					
Medium Density Residential	90 DUs					
High Density Residential	84 DUs	High Density Residential	84 DUs	576	34	43
Commercial	2.9 net acres	Commercial	37,000 sf[2]	1,791	69	198
			Total Gross Trips	**4,767**	**263**	**451**

Notes: [1] DUs = Dwelling Units, sf = Square Feet
[2] Calculated based on a Floor Area Ratio (FAR) of 0.3 applied to the commercial net acreage.
Sources: *ITE Trip Generation Manual, 11th Edition*; City of Winters Travel Demand Model; Fehr & Peers, 2024.



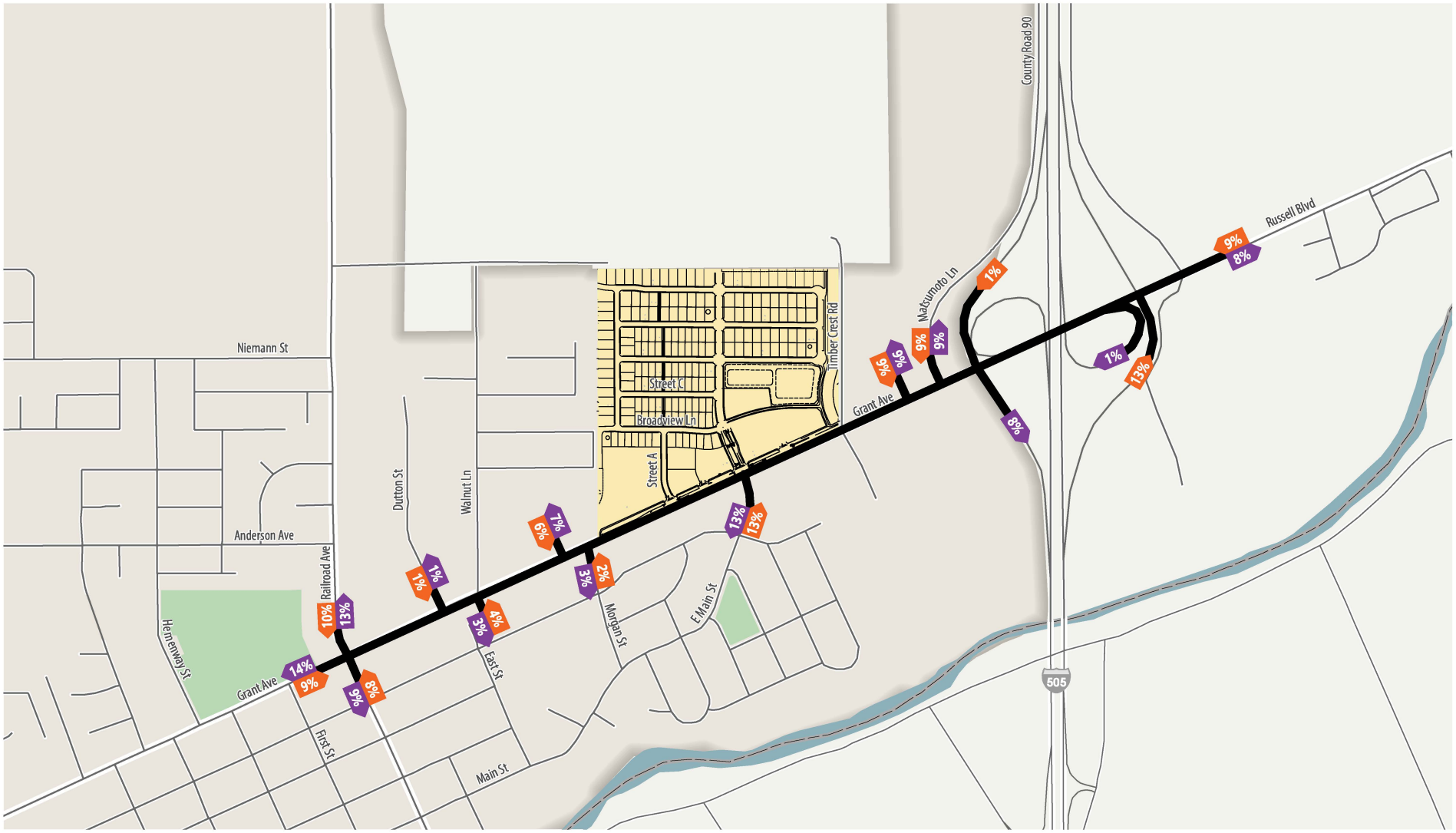
Outbound ##%
Inbound ##%

External Vehicle Trip Distribution

Farmstead Subdivision Project Site

Figure 2

Project Residential Component
PM Peak Hour Vehicle Trip Distribution



Outbound ##%
Inbound ##%

External Vehicle Trip Distribution

Farmstead Subdivision Project Site

Figure 3

Project Commercial Component
PM Peak Hour Vehicle Trip Distribution

Bicycle and Pedestrian Facilities

The impact assessment for bicycle and pedestrian travel considers existing and planned bicycle and pedestrian facilities and reviews the project to determine whether it would physically disrupt an existing facility or prevent the implementation of a planned facility. This assessment also considers whether the project would substantially increase conflicts between bicyclists and pedestrians and other modes of travel.

Transit Services and Facilities

The impact assessment for transit considers existing and planned transit facilities and services and reviews the project to determine whether it would physically disrupt an existing service or facility or prevent the implementation of a planned service or facility. This assessment also considers whether the project could conflict with applicable transit policies.

Vehicle Miles Traveled

As discussed above, LOS can no longer be used for evaluating project traffic impacts under CEQA with the passage of SB 743 and adoption of the amended CEQA Guidelines implementing SB 743 (see State CEQA Guidelines Section 15064.3). Per State CEQA Guidelines Section 15064.3, subdivision (c), the provisions in Section 15064.3 recommending VMT as the primary metric for analyzing traffic impacts applies as of July 1, 2020.

This analysis relies on guidance provided in the Technical Advisory to assess the project's VMT impact. Specifically, this analysis considers the following.

- Does the project meet one or more of the screening thresholds identified in the Technical Advisory such that a detailed analysis is not necessary?
    - If so, what information or data are available to support the conclusion that the project meets the screening threshold and should be considered to have a less-than-significant transportation impact?
- If the project does not meet one or more of the "screening thresholds," this analysis would proceed to a detailed analysis of the project's VMT impact. This includes quantifying the project's VMT generation and determining whether this VMT generation would exceed the recommended thresholds of significance in the Technical Advisory (i.e., 15 percent below existing regional VMT per capita/employee).

Vehicle Miles Traveled Screening Analysis

The Technical Advisory identifies "screening thresholds" to quickly identify, without conducting a detailed study, when a project should be expected to cause a less-than-significant transportation impact. As described in the Regulatory Setting section, the Technical Advisory suggests the following projects should be expected to have a less-than-significant impact on VMT.

- Small projects.
- Projects near major transit stops.
- Affordable residential development.
- Local-serving retail.
- Projects in low-VMT areas.

Of these project types, only the criterion for projects near major transit stops are codified in the updated State CEQA Guidelines. The remaining criteria for small projects, affordable residential development, local-serving retail, or projects in low-VMT areas are not codified in the State CEQA Guidelines but are suggested by OPR based on research cited in the Technical Advisory.

For mixed-use projects, the Technical Advisory suggests evaluating each component independently and applying the screening threshold for the applicable land use type. The Technical Advisory alternatively suggests that the lead agency may consider only the project's dominant use.

In accordance with the OPR Technical Advisory, the project commercial component would satisfy the local-serving retail VMT screening criteria by virtue of the nature and size of the commercial component (retail development less than 50,000 square feet in size).

A review of the project and study area indicates that the project residential component would not meet any of the screening criteria. Therefore, a quantitative VMT analysis is required for the project residential component.

Transportation System Safety Impacts

Potential transportation impacts related to transportation system safety are based on a review of project changes to the transportation network and a qualitative assessment of whether those changes would conflict with applicable standards or result in detrimental conditions based on the thresholds of significance.

Impacts and Mitigation Measures

This section describes the evaluation of potential transportation impacts associated with the implementation of the project and, in instances where the project would cause a significant impact, identifies potential mitigation measures that would lessen the severity of the impact.

Impact 1. Impacts to bicycle and pedestrian facilities.

The immediate project site vicinity currently lacks bicycle and pedestrian facilities. The project would construct the following new bicycle and pedestrian facilities:

- Class I shared-use path on the northern edge of Grant Avenue between Morgan Street and Timber Crest Road/PG&E Way
- Westbound Class II bike lane on Grant Avenue between Morgan Street and Timber Crest Road/PG&E Way
- Class II bike lanes on East Main Street between Grant Avenue and the northern project site boundary
- Class I shared-use path on the eastern project site boundary between the northwest corner of the Grant Avenue/Timber Crest Road/PG&E Way intersection and the northern project site boundary
- Sidewalks on internal roadways within the project site

The project would not physically disrupt existing bicycle or pedestrian facilities. Moreover, the project would not interfere with the implementation of planned future bicycle or pedestrian facilities. The location and type of bicycle and pedestrian facilities that would be constructed by the project would be consistent with those identified in the City of Winters Bikeway System Master Plan and the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan, particularly the new Class I shared-use path and westbound Class II bike lane on the northern side of Grant Avenue.

A review of the design of the new bicycle facilities that would be constructed by the project on Grant Avenue indicated an inconsistency with design standards set forth in the Caltrans Highway Design Manual. The proposed Class I shared-use path on the northern edge of Grant Avenue would be constructed with a width of 8 feet with landscaping on each side of the path. Caltrans standards require a paved width of 8 feet plus 2-foot shoulders of unobstructed all-weather surface on each side of a path.

Considering the project's proposed land uses and location within the City of Winters, the project would create new bicycle and pedestrian desire lines and generate new demand for bicycle and pedestrian travel within the project site and between the project site and other local activity generators. New bicycle and pedestrian travel demand would be served by the new bicycle and pedestrian facilities that would be

constructed by the project, as well as by existing bicycle and pedestrian facilities elsewhere in the local active transportation system.

Additionally, the project would create new bicycle and pedestrian desire lines and generate new demand for bicycle and pedestrian crossings across Grant Avenue within the project vicinity. For example, residents of neighborhoods situated along East Main Street south of Grant Avenue would desire to travel to commercial uses on the project site and, given the relatively short trip distance, could choose to walk or ride a bicycle to fulfill this trip. However, the one-half mile segment of Grant Avenue between Walnut Lane and Timber Crest Road/PG&E Way (i.e., along the project site frontage) currently lacks high-quality bicycle and pedestrian crossings and the project would not include the provision of such crossing facilities. Bicyclists and pedestrians who desire to cross Grant Avenue along the project frontage would be required to cross multiple lanes of uncontrolled vehicular traffic at legal unmarked crosswalks at Morgan Street or East Main Street, experiencing considerable exposure to conflicting vehicular traffic. Given these conditions, as well as project-related increases to vehicular traffic within the project site vicinity, the project would increase the number and severity of bicycle-vehicle and pedestrian-vehicle conflicts and increase the potential for collisions involving bicyclists and pedestrians.

Bicyclists and pedestrians who desire to access the project site to/from locations south of Grant Avenue could choose to utilize existing high-quality crossings at Walnut Lane or Timber Crest Road/PG&E Way. However, use of these high-quality crossing locations would require substantial out of direction travel. For example, in the aforementioned example of residents living in neighborhoods along East Main Street south of Grant Avenue, bicyclists and pedestrians attempting to access the project commercial uses near the Grant Avenue/East Main Street intersection would be required to travel approximately one-quarter mile out of direction in order to access the nearest existing high-quality crossing at Timber Crest Road/PG&E Way. Similarly, bicyclists and pedestrians traveling between Morgan Street south of Grant Avenue and project site uses near the Grant Avenue/East Main Street intersection would be required to travel approximately one-half mile out of direction in order to access the nearest existing high-quality crossing location at Walnut Lane. Considering these conditions, the existing and proposed Grant Avenue bicycle and pedestrian crossing facilities would not support bicycle or pedestrian travel to and from the project site.

The location and type of the project's proposed improvements to on- and off-site bicycle and pedestrian facilities would be consistent with City and Caltrans plans and policies that promote bicycle and pedestrian travel. However, the lack of existing or proposed high-quality bicycle and pedestrian crossings of Grant Avenue within the immediate project site vicinity and the resulting project-related adverse effects on bicycle and pedestrian travel and safety would be inconsistent with City and Caltrans plans and policies that promote bicycle and pedestrian travel, including City of Winters General Plan Goal III.G and Policies III.A.10, III.G.1, and V.A.15, the City of Winters Bikeway System Master Plan, and the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan. Finally, the lack of signalized pedestrian crossings at the Grant Avenue/East Main Street intersection would be inconsistent with the City of Winters Design Guidelines, which require that all through cross streets on Grant Avenue between Dutton Street and I-505 include signalized crosswalks.

Altogether, this impact would be **significant**.

Mitigation Measure 1.1. Install high-quality bicycle and pedestrian crossings on Grant Avenue within the project site vicinity.

The installation of high-quality bicycle and pedestrian crossings across Grant Avenue within the project site vicinity would reduce this impact by a) decreasing the number and severity of bicycle-vehicle and pedestrian-vehicle conflicts and the potential for collisions involving bicyclists and pedestrians and by b) accommodating bicycle and pedestrian travel in a manner consistent with City and Caltrans plans, policies, and standards that promote bicycle and pedestrian travel.

Potential locations for improved crossings include the Grant Avenue/East Main Street and Grant Avenue/Morgan Street intersections. The City of Winters Circulation Master Plan and the Grant Avenue/SR 128/Russell Boulevard Complete Streets Concept Plan include a new traffic signal at the Grant Avenue/East Main Street intersection and a new roundabout at the Grant Avenue/Morgan Street intersection to improve vehicle traffic operations and to improve bicyclist and pedestrian safety and comfort along the Grant Avenue corridor.

To satisfy this mitigation obligation, the project shall complete the following:

1. At the Grant Avenue/East Main Street intersection, install a traffic signal, marked crosswalks, bike lane conflict markings, and bicycle intersection crossing markings. A traffic signal would provide temporal separation between bicyclists, pedestrians, and conflicting vehicular movements (e.g., through the provision of pedestrian crossing phases). This improvement shall be completed during Phase 1 of the project.

2. At the Grant Avenue/Morgan Street intersection, make a fair share contribution towards the construction of a roundabout with marked crosswalks and physical separation between bicyclists and vehicles. Roundabouts reduce approach speeds for vehicular traffic and enable crossing pedestrians to negotiate conflicting vehicular traffic one direction at a time (i.e., through the provision of pedestrian refuge areas/splitter islands). Roundabouts eliminate the most hazardous intersection conflicts (right-angle or head-on collisions) by making all movements essentially right-turns into the circle. This improvement is included as a City-wide improvement project in the City's Traffic Impact Fee program. Accordingly, payment of the requisite impact fee to the City's fee program would fulfill the project's mitigation obligation for this improvement.
3. Improvements of equal effectiveness as determined by the City of Winters City Engineer.

These improvements would be constructed on the State Highway System and are subject to review and approval by Caltrans and should be designed to meet Caltrans standards.

Mitigation Measure 1.2. Construct the Grant Avenue bicycle facilities to comply with applicable design standards.

The new bicycle facilities on Grant Avenue proposed by the project shall be constructed to meet design standards set forth in the Caltrans Highway Design Manual. The project shall construct the Class I shared-use path on the northern edge of Grant Avenue between Morgan Street and Timber Crest Road/PG&E Way with a minimum paved width of 8 feet plus 2-foot shoulders of unobstructed all-weather surface on each side of a path. The provision of a 12-foot paved path would also satisfy the design requirements.

This improvement shall be completed during Phase 1 of the project.

With the implementation of Mitigation Measures 1.1 and 1.2, this impact would be **less than significant with mitigation**.

Impact 2. Impacts to transit services and facilities.

The City of Winters is served by the Yolobus YOUR Ride on-demand microtransit service. The service provides point-to-point rides within Winters (including the adjacent El Rio Villa community) and to/from the cities of Davis and Vacaville. YoloGO, the future service plan for Yolobus service throughout Yolo County, recommends the reinstatement of Route 220C, a commuter bus route that connected Winters with the City of Davis and UC Davis prior to the COVID-19 pandemic.

Currently, no transit stops are located adjacent to the project site and the closest bus stops to the project site are located on Grant Avenue east of Timber Crest Road/PG&E Way and on Grant Avenue west of Morgan Street. The project would include the construction of a new bus stop and turnout on westbound Grant Avenue west of East Main Street.

The project would not physically disrupt existing transit services or facilities. Moreover, the project would not interfere with the implementation of planned future transit services or facilities.

City of Winters General Plan Policy III.B.3 requires that bus turnouts and shelters in higher density residential and commercial areas and other areas as deemed appropriate. The project would include higher density residential and commercial uses and the provision of the proposed new bus stop and turnout on westbound Grant Avenue at East Main Street would ensure consistency with this policy.

Altogether, this impact would be **less than significant**.

Mitigation Measures

None required.

Impact 3. Impacts to vehicle miles traveled (VMT) on the roadway system.

The project would be a mixed-use development with two primary components – a residential component comprised of 329 dwelling units and an approximately 37,000-square foot commercial component primarily comprised of retail uses. The Technical Advisory indicates that lead agencies can evaluate each component of a mixed-use project independently and apply the significance threshold for each project type included. Thus, this study evaluates VMT independently for the project commercial and residential components.

Project Commercial Component Vehicle Miles Traveled

As described previously, the project commercial component would quality as local-serving retail development consistent with the screening criteria established in the Technical Advisory. Therefore, the project commercial component is assumed to have a less than significant impact on VMT since it satisfies one or more of the VMT screening criteria identified in the OPR Technical Advisory.

Project Residential Component Vehicle Miles Traveled

The Technical Advisory states that residential projects that would exceed a level of 15 percent below existing VMT per capita may indicate a significant transportation impact. The Technical Advisory states that VMT per capita may be measured as regional VMT per capita or as city VMT per capita.

SACOG has prepared maps illustrating residential VMT per capita for areas throughout the six-county region.[2] According to SACOG estimates, existing residential development throughout the City of Winters generates an average of 30.69 residential VMT per capita, which is 47 percent above the existing regional average of 20.82 residential VMT per capita. The project residential component would be expected to exhibit similar VMT characteristics as those displayed by existing residential development within Winters. Thus, the project residential component is estimated to generate approximately 30.69 residential VMT per capita, which would exceed a level of 15 percent below the existing regional VMT per capita.

This relatively high VMT per capita measurement can be attributed to the high automobile mode split exhibited by Winters residents, the dispersed development patterns throughout Winters, and the considerable distance required to travel to destinations outside of Winters, particularly for commute travel to employment centers outside of Winters (e.g., UC Davis, Downtown Sacramento, Vacaville, etc.).

Summary

The project commercial component would be presumed to have a less than significant impact on VMT pursuant to the OPR Technical Advisory screening criteria. However, the project residential component would generate residential VMT per capita at a rate that exceeds 15 percent below the existing regional average. Altogether, this impact would be **significant**.

Mitigation Measure 3.1. Implement transportation demand management (TDM) strategies.

Mitigation actions that could lessen this impact include those that would reduce the number of vehicle trips generated by the project. This could be accomplished by changing the proposed land use or by implementing transportation demand management (TDM) strategies. TDM strategies can result in reductions to a project's vehicle trip generation based on certain types of project site modifications, programming, and operational changes.

To the extent feasible, the applicant should implement TDM strategies to reduce the number of vehicle trips that would be generated by both the residential and commercial components of the

[2] https://sacog.maps.arcgis.com/apps/webappviewer/index.html?id=0eac172e44514776b2f30e4324652f88&extent=-13567338.6225%2C4599309.7898%2C-13330078.0867%2C4789485.1162%2C102100

project. Potential TDM strategies range from site design characteristics to on-going parking management and commute travel programs. The California Air Pollution Control Officers Association (CAPCOA) Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity identifies numerous TDM strategies and quantifies their potential vehicle trip reduction effects. Potential strategies that could be applicable to the project include:

1. Increase residential density
2. Increase job density
3. Provide transit-oriented development
4. Implement commute trip reduction program
5. Implement commute trip reduction marketing
6. Provide ridesharing program
7. Provide end-of-trip bicycle facilities
8. Limit residential parking supply
9. Unbundle residential parking costs from property costs
10. Improve street connectivity
11. Provide pedestrian network improvement
12. Construct or improve bike facility
13. Construct or improve bike boulevard
14. Expand bikeway network
15. Implement carshare program
16. Community-based travel planning
17. Extend transit network coverage or hours
18. Increase transit service frequency
19. Reduce transit fares

Strategies 11 through 14 entail improvements to the bicycle and pedestrian environment, consistent with Mitigation Measures 1.1 and 1.2.

Implementation of Mitigation Measure 3.1 would reduce residential VMT per capita associated with the project residential component by implementing TDM strategies to reduce external vehicle trips generated by the project. However, the effectiveness of the TDM strategies cannot be quantified at this time and subsequent vehicle trip reduction effects cannot be guaranteed. Existing evidence indicates that the effectiveness of TDM strategies with regards to vehicle trip

reduction can vary based on a variety of factors, including the context of the surrounding built environment (e.g., urban versus suburban) and the aggregate effect of multiple TDM strategies deployed together. Moreover, many TDM strategies are not just site specific, but also rely on implementation and/or adoption by private entities (e.g., elective use of carpool program by office building tenants). Finally, even if implemented, it is uncertain if TDM strategies would be able to sufficiently reduce VMT generated by the project to levels below the thresholds of significance. For example, VMT generated by the residential component of the project would need to decrease by 42 percent in order to fall below the threshold of significance (15 percent or more below the existing regional average residential VMT per capita). There is limited evidence to suggest that conventional TDM strategies in rural/suburban settings are capable of achieving such trip reduction outcomes.

Due to uncertainties regarding the ability for the aforementioned mitigation measure to reduce VMT impacts to less-than-significant levels, VMT impacts would be considered **significant and unavoidable**.

Impact 4. Transportation system safety impacts.

The project would result in increased travel activity, including bicycle, pedestrian, and vehicle trips. Refer to Impact 1 for a discussion of existing and planned bicycle and pedestrian facilities within the project site vicinity, the project's effect on bicycle and pedestrian travel activity, and adverse effects to bicycle and pedestrian safety that would result from the project. Impact 1 additionally describes the extent to which the project would result in inconsistencies with City and Caltrans plans, policies, and design standards related to bicycle and pedestrian facilities.

The project would result in increased vehicle trips on local and regional roadways. These include local roadways owned and operated by the City of Winters and roadways that are part of the State Highway System owned and operated by Caltrans, including Grant Avenue (SR 128) and I-505. Increases to vehicle trips associated with the project would be concentrated on Grant Avenue east and west of the project site, particularly between the project site and the I-505 interchange. The project would result in increased demand for vehicle turning movements at the proposed Grant Avenue intersections and driveways.

The project would construct four vehicular access points on Grant Avenue at the Grant Avenue/East Main Street and Grant Avenue/Street A intersections, as well as at two new RIRO driveways that would serve the project's Grant Avenue frontage parcels west and east of East Main Street. As such, the project would increase the density of intersections and driveways along its Grant Avenue frontage. Research indicates that roadways with more access points per mile experience higher collision rates. Project-related vehicle turning movements, together with proposed intersection and driveway controls, could result in an increase in the number and severity of vehicle-vehicle conflicts. Research indicates that direct left-turn

egress maneuvers, such as those proposed at the Grant Avenue/East Main Street intersection, pose a greater number of conflicts and higher collision rates than direct right-turn egress maneuvers or egress maneuvers managed by traffic signals or roundabouts.

Caltrans does not have standards regarding the specific spacing of driveways or intersections on highways such as Grant Avenue. Caltrans does have standards for the design elements of right- and left-turn channelization, which affect the placement of driveways and intersections. Moreover, the American Association of State Highway and Transportation Officials (AASHTO) A Policy on the Geometric Design of Highways and Streets (the Green Book) states that driveways should not be located within the functional area of an intersection or in the influence area of an adjacent driveway. Key factors for both the Caltrans standards and the AASHTO guidance include vehicle queues, deceleration distance, tapers, and perception-reaction times.

The project would result in peak hour queueing on Grant Avenue, particularly for left-turn vehicle movements entering the project site at East Main Street and Street A and major street through movements on Grant Avenue (e.g., westbound approach at Grant Avenue/East Main Street). Queueing caused by the project and its associated effects on the functional areas of the Grant Avenue/East Main Street and Grant Avenue/Street A intersections would result in the proposed project driveways being located within functional areas of the Grant Avenue/East Main Street and Grant Avenue/Street A intersections. As a result, the proposed project driveways could disrupt operations at adjacent Grant Avenue intersections and increase the potential for collisions.

The construction of multiple project access points on Grant Avenue would be inconsistent with the City of Winters Design Guidelines and the Grant Avenue Design Guidelines, which state a preference to minimize project access points on Grant Avenue and to instead provide project access via Grant Avenue cross streets such as East Main Street. The City of Winters Design Guidelines do provide exceptions for joint driveways on Grant Avenue "if necessary" but do not define the circumstances where such exceptions apply. The Grant Avenue Design Guidelines state that more than one access to a site from a public street may be permitted when the additional access will not be hazardous to the safety and operation of the street or pedestrians. Based on the conceptual site plan, the proposed project access points could increase the potential for collisions, as described previously. However, the project site plan and project description do not provide sufficient details regarding the project land uses and parcel site design to determine whether the ultimate project access would be hazardous to the safety and operation of the street or pedestrians, or if the project driveway would be necessary per the City's Design Guidelines. For example, the project site plan does not provide information regarding the specific tenants of each commercial parcel, on-site parking layouts, or driveway design details (e.g., throat depths) necessary for a detailed safety evaluation.

The Caltrans Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance recommends that CEQA safety reviews for land use projects include freeway queueing analysis to evaluate the potential for land use projects to result in safety-related queueing issues on the State Highway System freeway mainline. A peak hour traffic operations analysis was conducted for the I-505 ramp terminal intersections at Grant Avenue (refer to Chapter 4), including an evaluation of changes to off-ramp queue lengths that would result from the project during the a.m. and p.m. peak hours. This analysis indicated that off-ramp queues would not extend back to the I-505 mainline under Existing Plus Project, EPAP Plus Project, or Cumulative Plus Project conditions. Therefore, the project would not cause safety-related queueing issues on the State Highway System freeway mainline.

Altogether, the project would result in changes to the transportation system and to the mix and volume of multi-modal traffic in a manner that would conflict with applicable standards and that could increase the potential for collisions. Moreover, insufficient information is available at this time to fully evaluate potential adverse safety effects associated with the ultimate proposed project access points on Grant Avenue. Altogether, this impact would be **significant**.

Mitigation Measure 4.1. Install high-quality bicycle and pedestrian crossings on Grant Avenue within the project site vicinity.

Implement Mitigation Measure 1.1.

Mitigation Measure 4.2. Construct the Grant Avenue bicycle facilities to comply with applicable design standards.

Implement Mitigation Measure 1.2.

Mitigation Measure 4.3. Construct and operate the project driveway and intersections on Grant Avenue to minimize the number and severity of conflicts and to minimize the potential for collisions.

At buildout, the project driveway and intersections on Grant Avenue should be constructed as follows to minimize the number and severity of conflicts and to minimize the potential for collisions:

1. Grant Avenue between Street A and Timber Crest Road/PG&E Way
    a. Two westbound travel lanes between Timber Crest Road/PG&E Way and Street A. These travel lanes should merge into a single lane west of Street A.

b. Two eastbound travel lanes between East Main Street and Timber Crest Road/PG&E Way.
c. A center lane for turn pockets, medians, etc.

2. Grant Avenue/Street A intersection
    a. Side-street stop-controlled intersection.
    b. Lane configurations as follows:
        i. Eastbound: A left-turn pocket and a through lane.
        ii. Westbound: A through lane and a shared through-right turn lane.
        iii. Southbound: A right-turn lane.
    c. The Grant Avenue median should be constructed to restrict southbound left-turn movements.
    d. A marked crosswalk should be provided on the north leg of the intersection.
3. Grant Avenue/Project Driveway West
    a. Side-street stop-controlled intersection.
    b. Lane configurations as follows:
        i. Eastbound: A through lane.
        ii. Westbound: A through lane and a shared through-right turn lane.
        iii. Southbound: A right-turn lane.
    c. The Grant Avenue median should be constructed to restrict eastbound left-turn and southbound left-turn movements.
    d. A marked crosswalk should be provided on the north leg of the intersection.
4. Grant Avenue/East Main Street intersection
    a. Signalized intersection.
    b. Lane configurations as follows:
        i. Eastbound: A left-turn pocket, a through lane, and a shared through-right turn pocket.
        ii. Westbound: A left-turn pocket, a through lane, and a shared through-right turn lane.
        iii. Northbound: A left-turn pocket and a shared through-right turn lane.
        iv. Southbound: A left-turn pocket, a through lane, and a right-turn pocket.
    c. Provide a single northbound travel lane on the north leg of the intersection.
    d. Marked crosswalks should be provided on all four legs of the intersection.

5. Grant Avenue/Project Driveway East intersection
    a. Side-street stop-controlled intersection.
    b. Lane configurations as follows:
        i. Eastbound: Two through lanes.
        ii. Westbound: A through lane and a shared through-right turn lane.
        iii. Southbound: A right-turn lane.
    c. The Grant Avenue median should be constructed to restrict eastbound left-turn and southbound left-turn movements.
    d. A marked crosswalk should be provided on the north leg of the intersection.
6. East Main Street/Broadview Lane
    a. Side-street stop-controlled intersection.
    b. Shared left-through-right lane for each approach.

These modifications would be constructed on the State Highway System and are subject to review and approval by Caltrans and should be designed to meet Caltrans standards.

The timing and nature of these modifications would be heavily influenced by the type of commercial development that would occur on the project's commercial lots as well as the ultimate design of each lot. For example, the site access needs for a cluster of drive-through restaurants are vastly different than those for a neighborhood retailer. At the time of processing of any parcel map for Lots B1 through B3 (i.e., Phase 3), the project applicant shall evaluate the Grant Avenue frontage parcel site access needs and locate, design, and construct the parcel driveways and intersections in a manner that minimizes the potential for multi-modal conflicts and complies with City and Caltrans standards. This process shall involve consultation with the Caltrans District 3 Traffic Operations branch. This process shall consider, but will not be limited to, the following factors:

- Potential to eliminate access points on Grant Avenue, consistent with the City of Winters Design Guidelines and the Grant Avenue Design Guidelines.
- Traffic operations, queueing, deceleration length, and conflicting vehicle movements within adjacent intersection and driveway influence areas
- Number and severity of multi-modal conflict points
- Driveway placement and throat width/depth
- Sight distance requirements
- Left- and right-turn channelization, deceleration, and storage needs

- Potential for on-site queueing (e.g., from drive-through uses)
- On-site parking layout
- On-site internal multi-modal circulation

The ultimate Grant Avenue frontage parcel access will be subject to review and approval by Caltrans and should be designed to meet Caltrans standards.

With the implementation of Mitigation Measures 4.1, 4.2 and 4.3, this impact would be **less than significant with mitigation**.

4. Traffic Operations Analysis

The purpose of this traffic operations analysis is to identify the type of operational improvements necessary to accommodate the project in accordance with City of Winters General Plan policies related to vehicle delay and LOS. In addition to changes to travel demand associated with the project, the analysis also considers the operational effects of other approved Winters development projects that are currently pending or under construction. This analysis also considers traffic operations that would result from reasonably foreseeable cumulative changes to land uses and the local roadway system.

Analysis Scenarios and Time Periods

The need for transportation improvements is determined by examining peak hour operations and traffic signal warrants and key intersections. The weekday morning and evening peak hours are evaluated since they represent the time periods when travel demand throughout the City is at its highest. An evaluation of intersection performance is provided for the following conditions:

- Existing Conditions
- Existing Plus Approved Projects (EPAP) No Project (Farmstead Subdivision Project)
- EPAP Plus Project
- Cumulative Plus Project

Study Facilities

This analysis addresses conditions at the following study intersections near the project site (see Figure 4):

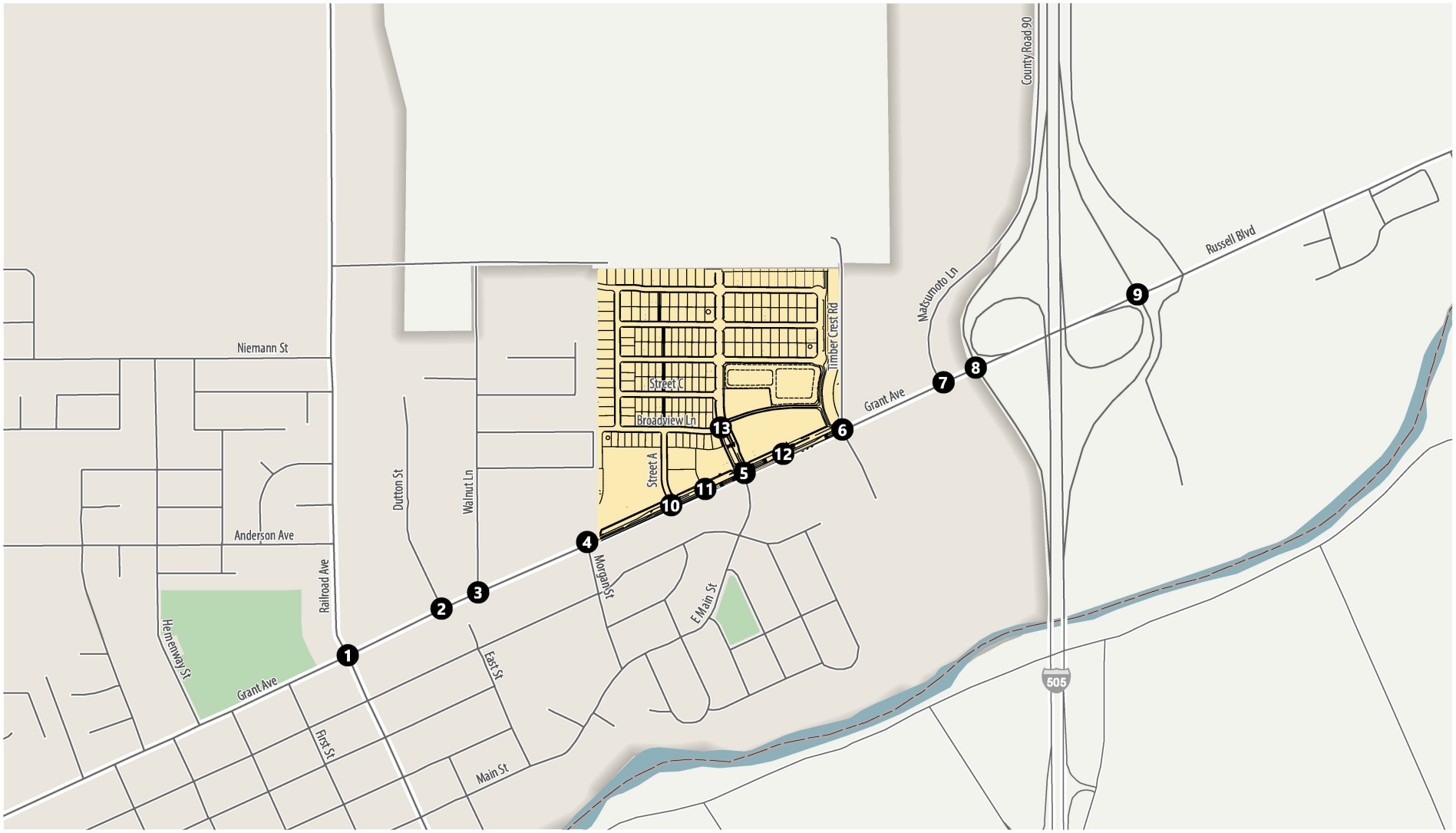
1. Grant Avenue/Railroad Avenue
2. Grant Avenue/Dutton Street
3. Grant Avenue/Walnut Lane
4. Grant Avenue/Morgan Street
5. Grant Avenue/East Main Street
6. Grant Avenue/Timber Crest Road/PG&E Way
7. Grant Avenue/Matsumoto Lane/County Road 90
8. Grant Avenue/I-505 Southbound Ramps
9. Grant Avenue/I-505 Northbound Ramps
10. Grant Avenue/Street A (future intersection)
11. Grant Avenue/Farmstead Driveway West (future intersection)
12. Grant Avenue/Farmstead Driveway East (future intersection)
13. East Main Street/Broadview Road (future intersection)

This analysis additionally addresses conditions at the following study roadway segments:

1. Grant Avenue – Railroad Avenue to Walnut Lane
2. Grant Avenue – Morgan Street to East Main Street
3. Grant Avenue – East Main Street to I-505 Southbound Ramps

All 13 study intersections are evaluated under EPAP Plus Project conditions, while only study intersections 5 and 8 are evaluated under Cumulative Plus Project conditions. The remaining study intersections were previously analyzed for a prior version of the project under Cumulative Plus Project conditions and were found to operate acceptably under a.m. and p.m. peak hour conditions. Since the revised project is estimated to generate less traffic than the previous version of the project, it is presumed that intersections 1 through 4, 6, 7, and 9 through 13 would also operate acceptably with the revised project.

The 3 study roadway segments are evaluated under Cumulative Plus Project conditions only.



1 Study Intersection

Farmstead Subdivision Project Site

Figure 3

Study Intersections

Analysis Methodologies

Travel Forecasts

Under the EPAP analysis scenarios, Spring 2023 traffic data was adjusted to account for the addition of trips associated with approved and pending development elsewhere in the City. These projects include the Stones Throw, Walnut Lane 10, and Grocery Outlet projects.

Under the cumulative analysis scenarios, existing traffic data was adjusted to account for reasonably foreseeable land use and transportation system changes identified in the City of Winters General Plan and Circulation Master Plan.

The City of Winters local travel demand model was utilized to forecast peak hour traffic volumes on the local and regional transportation system under the EPAP and cumulative analysis scenarios. The base year model was updated to match Spring 2023 land use and transportation system conditions in the City of Winters at the time traffic counts were collected. An EPAP No Project model was prepared by adding the approved and pending development projects in Winters described above to the updated base year (Spring 2023) model. An EPAP Plus Project model was prepared by adding the project land uses and roadways to the EPAP No Project model. A Cumulative Plus Project model was prepared by revising the pre-existing cumulative model to reflect the proposed project land uses. The pre-existing cumulative model includes land uses consistent with those identified in the City of Winters Circulation Master Plan, but contains land uses within the project site that differ from those proposed as part of the Farmstead Subdivision Project. Finally, EPAP No Project, EPAP Plus Project, and Cumulative Plus Project peak hour traffic volumes were derived by applying the difference method to the Spring 2023 traffic counts. This method entails calculating the difference between the base year model outputs and the future year model outputs and applying the difference to the existing peak hour traffic volumes. The trip generation rates utilized in the local travel demand model are based on trip rates published from the ITE *Trip Generation Manual* and adjusted to match locally observed data.

Intersection Analysis Methodology

This study analyzes roadway operating conditions using intersection level of service (LOS) as a primary measure of operational performance. Motorized vehicle LOS is a qualitative measure of traffic flow from the perspective of motorists and is an indication of the comfort and convenience associated with driving. Typical factors that affect motorized vehicle LOS include speed, travel time, traffic interruptions, and freedom to maneuver. Empirical LOS criteria and methods of calculation have been documented in the *Highway Capacity Manual, 7th Edition* (HCM) published by the Transportation Research Board of the National Academies of Science (Transportation Research Board, 2022). The HCM defines six levels of service ranging from LOS A (representing free-flow vehicular traffic conditions with little to no congestion)

to LOS F (oversaturated conditions where traffic demand exceeds capacity resulting in long queues and delays). The LOS definitions and calculations contained in the HCM are the prevailing measurement standard used throughout the United States and are used in this study. Motorized vehicle LOS definitions for signalized and unsignalized intersection are discussed below.

The LOS at signalized intersections is based on the average control delay (i.e., delay resulting from initial deceleration, queue move-up time, time stopped on an intersection approach, and final acceleration) experienced per vehicle traveling through the intersection. Table 3 summarizes the relationship between delay and LOS for signalized intersections.

Table 3: Signalized Intersection LOS Criteria

Level of Service	Description	Average Control Delay[1]
A	Volume-to-capacity ratio is low and either progression is exceptionally favorable or cycle length is very short.	≤ 10
B	Volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	>10 to 20
C	Progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 to 35
D	Volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35 to 55
E	Volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	>55 to 80
F	Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80

Note: [1] Average control delay presented in seconds per vehicle. Delay values are rounded to the nearest second and evaluated for LOS based on the above thresholds (i.e., 10 seconds per vehicle = LOS A).
Source: *Highway Capacity Manual, 7th Edition,* Transportation Research Board, 2022.

Similar to signalized intersections, the HCM 7th Edition methodology for stop-controlled intersections reports the LOS based on the control delay experienced by motorists traveling through the intersection. As shown in Table 4, the delay ranges for stop-controlled intersections are lower than for signalized intersections. The HCM anticipates that motorists expect signalized intersections to carry higher traffic volume that results in greater delay than a stop-controlled intersection. Stop controls are associated with more uncertainty as delays are less predictable, which can reduce users' delay tolerance.

Table 4: Stop-Controlled Intersection LOS Criteria

Level of Service	Average Control Delay[1]
A	≤ 10
B	>10 to 15
C	>15 to 25
D	>25 to 35
E	>35 to 50
F	>50

Note: [1] Average control delay presented in seconds per vehicle. Delay values are rounded to the nearest second and evaluated for LOS based on the above thresholds (i.e., 10 seconds per vehicle = LOS A).
Source: *Highway Capacity Manual, 7th Edition,* Transportation Research Board, 2022.

As described in Chapter 21 of the HCM 7th Edition, the LOS for all-way stop controlled intersections is based on the average control delay for the entire intersection. For side-street stop-controlled intersections, the LOS is determined separately for each minor-street movement (or shared movement) and may also be basis on major-street left-turn movements, per Chapter 20 of the HCM 7th Edition.

Roadway Segment Analysis Methodology

Consistent with methods used in the City of Winters Circulation Master Plan (November 2018), this study evaluates study roadway segments by comparing p.m. peak hour (two-way total) traffic volumes to roadway capacities for different roadway classifications. These roadway capacities were developed using the Highway Capacity Software (HCS) 2000 (Patch E), which applies the HCM 2000 methodologies.

Citywide, the p.m. peak hour experiences the highest hourly volume during a typical weekday, and therefore represents a 'worst-case' scenario for the purposes of this analysis. This peak hour volume is used to design future roadways because of its regular weekday occurrence. Using a higher or lower volume hour could lead to inadequate designs or designs that are underused.

Table 5 summarizes the peak hour roadway segment capacities by functional classification for two- and four-lane roadways.

Table 5: Level of Service Criteria – Roadway Segments

Types	Lanes	Separation	Peak Hour Roadway Capacity				
			LOS A	LOS B	LOS C	LOS D	LOS E
Arterial	4	Raised	-	-	1,000	3,470	3,730
		TWLTL	-	-	940	3,290	3,550
		Undivided	-	-	770	2,740	2,980
	2	Raised	-	-	440	1,640	1,860
		TWLTL	-	-	420	1,550	1,760
		Undivided	-	-	340	1,270	1,480
Collector	4	TWLTL	-	-	940	3,290	3,550
		Undivided	-	-	770	2,740	2,980
	2	TWLTL	-	-	420	1,550	1,760
		Undivided	-	-	340	1,270	1,480

Source: *Highway Capacity Manual 2000,* Transportation Research Board, 2000.

It should be noted that this methodology used to analyze the roadway system is a simple comparison of vehicle throughput and roadway capacity and does not account for potential operational improvements resulting from traffic control at intersections. As such, roadway segment LOS is often reported as being worse than adjacent intersection LOS where traffic signals, roundabouts, and other traffic control devices facilitate vehicular movement. Therefore, at locations where both roadway segment LOS and intersection LOS analyses are conducted, intersection LOS supersedes roadway segment LOS, as it more accurately portrays actual roadway operating conditions.

Intersection Performance Thresholds

City of Winters

This analysis applies the LOS threshold established in the City of Winters Circulation Master Plan to evaluate the operational performance of the study intersections. The Circulation Master Plan includes the following performance thresholds:

Policy III.A.I The City shall endeavor to maintain a Level of Service "D" or better, as defined by the Highway Capacity Manual 2010 or subsequent revisions, on all streets and intersections within the City.

Caltrans

Caltrans' *Draft Transportation Corridor Concept Report State Route 128* (Caltrans, June 2017) identifies future roadway improvements and LOS targets for SR-128 over a 20-year planning horizon. For SR-128 within the limits of the City of Winters, the 20-Year Future LOS is specified as LOS E and the 20-Year Concept LOS is specified as LOS D.

LOS Criteria

Based on the LOS thresholds identified above, operational deficiencies for the purposes of this analysis are identified under the following conditions:

- On City of Winters roadway facilities and on Grant Avenue (SR 128):
    - For signalized and all-way stop-controlled intersections, locations with peak hour intersection operations of LOS E or worse.
    - For side-street stop-controlled intersections, locations where the worst-case movement (or shared movement) operates at LOS E or worse and that meet the California Manual on Uniform Traffic Control Devices (CAMUTCD) peak hour signal warrant.
    - For roadway segments, locations with peak hour roadway segment operations of LOS E or worse (except where superseded by intersection LOS).

Signal Warrant Analysis

This analysis is intended to examine the general correlation between the planned level of future development and the need to construct transportation system improvements, including the potential installation of new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and associated State guidelines. In instances where this analysis identifies that a signal warrant has been met, the construction of any future traffic signal is subject to review and approval of the City Traffic Engineer.

Existing Conditions

The traffic counts used in the existing conditions analysis were collected on a weekday in Spring 2023. The counts were taken during the morning (7 to 9 a.m.) and afternoon (4 to 6 p.m.) peak periods. Existing a.m. and p.m. peak hour traffic volumes at the study intersections are illustrated in Figure 5.

Existing Traffic Operations

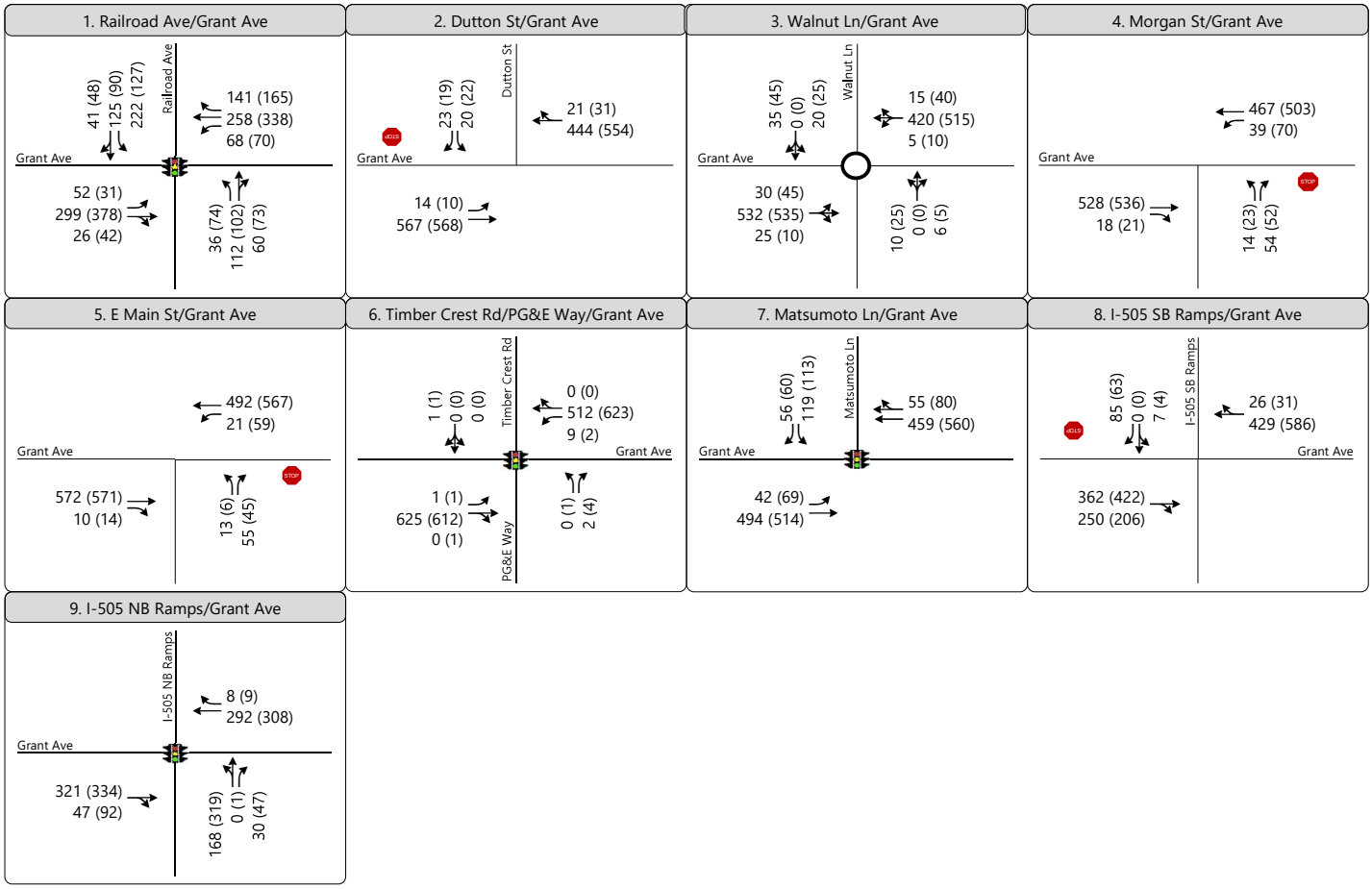
Table 6 summarizes the a.m. and p.m. peak hour delay and LOS at each study intersection. All of the study intersections operate acceptably at LOS D or better during both the a.m. and p.m. peak hours.

Table 6: Peak Hour Intersection Operations – Existing Conditions

Intersection	Traffic Control	Jurisdiction	Peak Hour	Existing Conditions	
				Delay	LOS
1. Grant Ave./Railroad Ave.	Signal	Caltrans	A.M.	21	C
			P.M.	18	B
2. Grant Ave./Dutton St.	SSSC	Caltrans	A.M.	1 (17)	A I SB LT
			P.M.	1 (17)I(C) SB LT	
3. Grant Ave./Walnut Lane	RAB	Caltrans	A.M.	8	A
			P.M.	8	A
4. Grant Ave./Morgan St.	SSSC	Caltrans	A.M.	1 (17)	A (C) NB LT
			P.M.	1 (18)	A (C) NB LT
5. Grant Ave./East Main St.	SSSC	Caltrans	A.M.	1 (27)	A (D) NB LT
			P.M.	1 (30)	A (D) NB LT
6. Grant Ave./Timber Crest Rd./PG&E Way	Signal	Caltrans	A.M.	4	A
			P.M.	9	A
7. Grant Ave./Matsumoto Lane/CR 90	Signal	Caltrans	A.M.	9	A
			P.M.	9	A
8. Grant Ave./I-505 Southbound Ramps	SSSC	Caltrans	A.M.	1 (20)	A (C) SB THLT
			P.M.	1 (24)	A (C) SB THLT
9. Grant Ave./ I-505 Northbound Ramps	Signal	Caltrans	A.M.	7	A
			P.M.	8	A

10. Grant Ave./Street A	*Future Intersection*
11. Grant Ave./Farmstead Driveway West	*Future Intersection*
12. Grant Ave./Farmstead Driveway East	*Future Intersection*
13. East Main St./Broadview Ln.	*Future Intersection*

Note: For signalized, all-way stop controlled (AWSC), and roundabout-controlled (RAB) intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop-controlled (SSSC) intersections, intersection delay is reported in seconds per vehicle for all approaches and for the worst-case movement (in parentheses).
Source: Fehr & Peers, 2024.



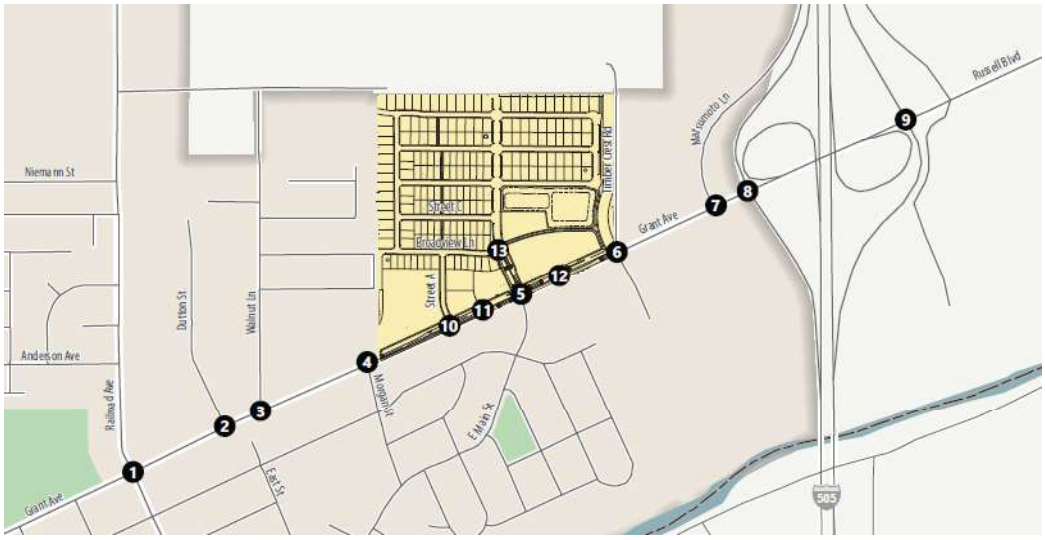


Figure 5
Peak Hour Traffic Volumes and Lane Configurations
Existing Conditions

EPAP No Project Conditions

The following section provides a description of near-term transportation conditions without the project. This scenario assesses transportation conditions with the addition of trips generated by development projects that have received formal entitlement approvals from the City of Winters.

Land Use Changes

The approved and pending or under construction developments described previously (Stones Throw, Walnut Lane 10, and Grocery Outlet projects) are included in the EPAP No Project scenario. Trips generated by these developments were added to the existing traffic volumes, as these projects are expected to be constructed and occupied in the near future.

Transportation System Changes

No modifications to the existing roadway network in the study area are assumed.

EPAP No Project Traffic Operations

A.M. and p.m. peak hour traffic volumes at the study intersections under EPAP No Project conditions are illustrated in Figure 6.

Table 6 summarizes the a.m. and p.m. peak hour levels of service at each of the study intersections under EPAP No Project conditions. All but one of the study intersections would operate acceptably at LOS D or better during both the a.m. and p.m. peak hours under EPAP No Project conditions. During the a.m. and p.m. peak hours, the Grant Avenue/East Main Street intersection would operate with an unacceptable worst-case movement of LOS E.

EPAP Plus Project Conditions

This scenario considers the operational effects of the buildout of the project when added to the EPAP No Project scenario.

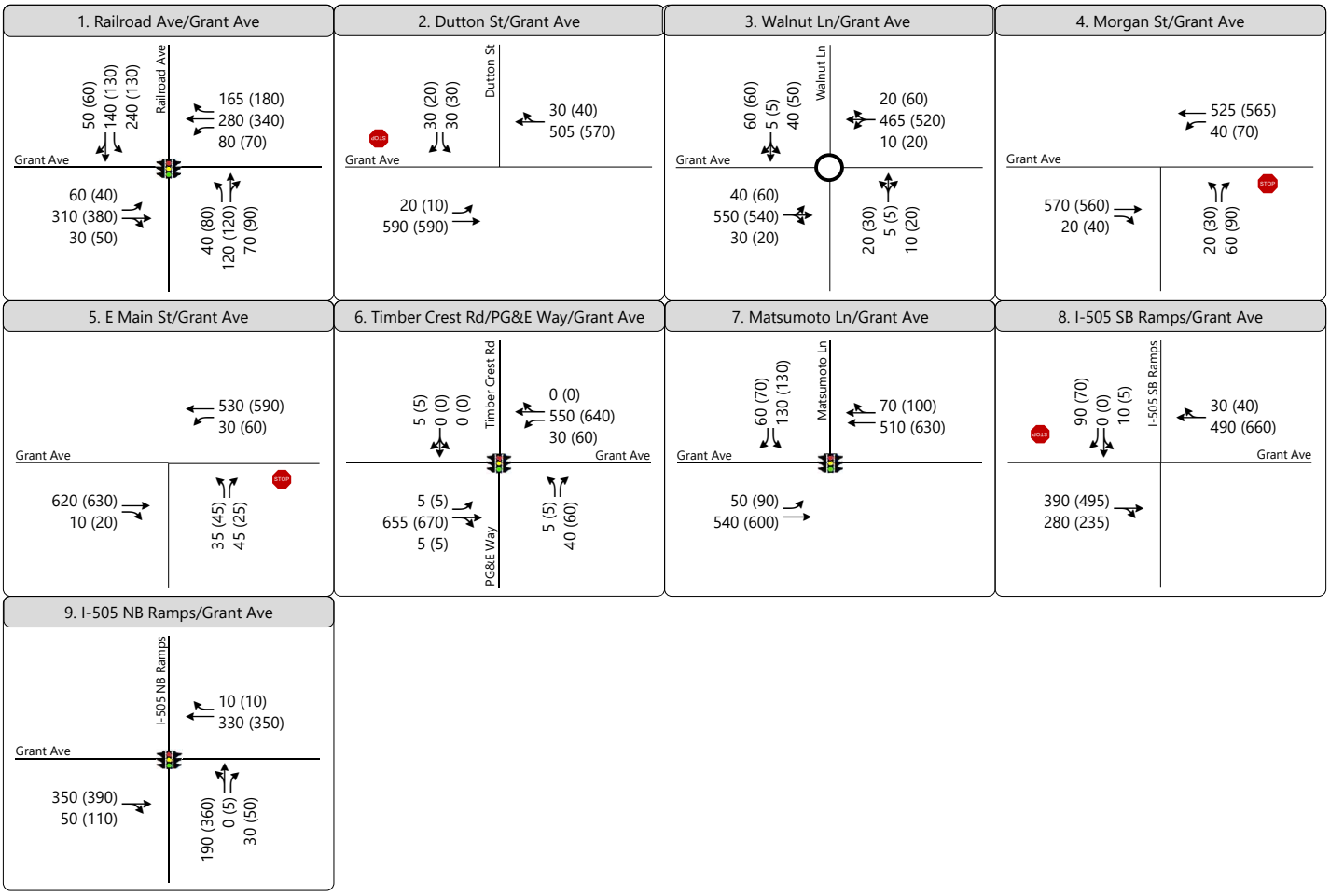
EPAP Plus Project Traffic Operations

A.M. and p.m. peak hour traffic volumes at the study intersections under EPAP Plus Project conditions are illustrated in Figure 7.

Table 7 summarizes the a.m. and p.m. peak hour delay and LOS at each of the study intersections under EPAP Plus Project conditions. The project would increase peak hour vehicle travel demand and delay at all study intersections. All of the study intersections would operate acceptably during both the a.m. and p.m. peak hours under EPAP Plus Project conditions, with the following exception:

- **Grant Avenue/East Main Street** – During both the a.m. and p.m. peak hours, this intersection would operate with an unacceptable worst-case movement of LOS F and would meet the peak hour signal warrant (Warrant 3B).

The project would be considered to cause an operational deficiency at the Grant Avenue/East Main Street intersection based on the established intersection performance thresholds.



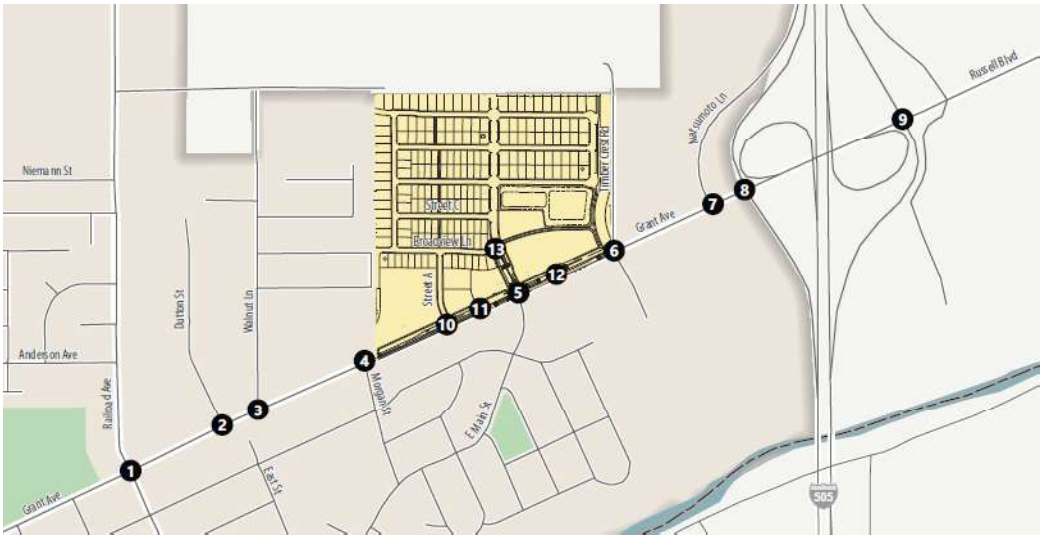


Figure 6
Peak Hour Traffic Volumes
and Lane Configurations
Existing Plus Approved Projects (EPAP) No Project Conditions

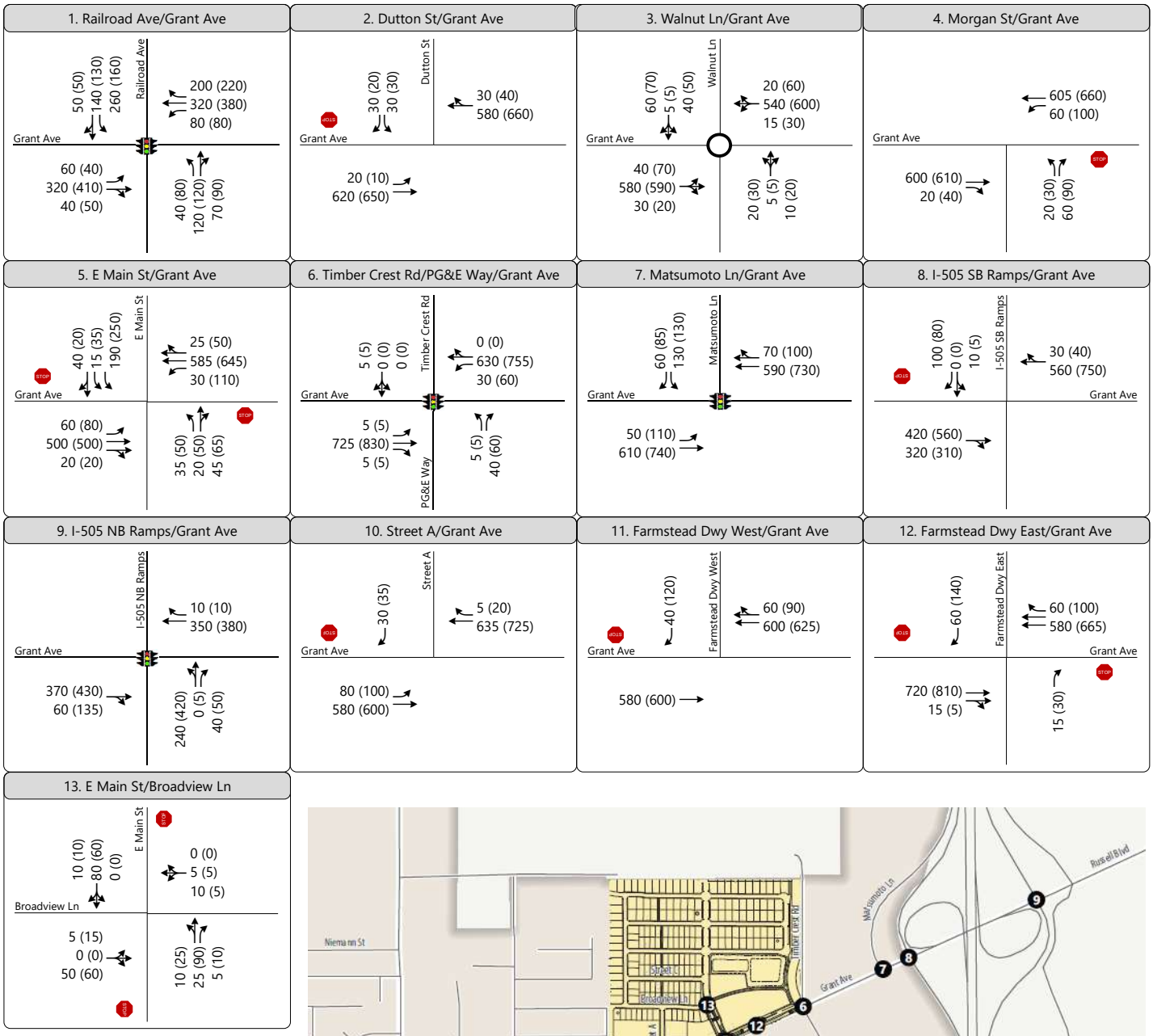


Figure 7

Peak Hour Traffic Volumes
and Lane Configurations
Existing Plus Approved Projects (EPAP) Plus Project Conditions

Table 7: Peak Hour Intersection Operations – EPAP No Project and EPAP Plus Project Conditions

Intersection	Traffic Control	Jurisdiction	Peak Hour	EPAP No Project		EPAP Plus Project	
				Delay	LOS	Delay	LOS
1. Grant Ave./Railroad Ave.	Signal	Caltrans	A.M.	22	C	25	C
			P.M.	19	B	20	B
2. Grant Ave./Dutton St.	SSSC	Caltrans	A.M.	1 (18)	A (C) SB LT	1 (20)	A (C) SB LT
			P.M.	1 (18)	A (C) SB LT	1 (19)	A (C) SB LT
3. Grant Ave./Walnut Lane	RAB	Caltrans	A.M.	9	A	10	A
			P.M.	9	A	9	A
4. Grant Ave./Morgan St.	SSSC	Caltrans	A.M.	1 (18)	A (C) NB LT	1 (19)	A (C) NB LT
			P.M.	2 (19)	A (C) NB LT	2 (21)	A (C) NB LT
5. Grant Ave./East Main St.	SSSC	Caltrans	A.M.	**2 (38)**	**A (E) NB LT**	**12 (>120)**	**B (F) SB LT**
			P.M.	**2 (47)**	**A (E) NB LT**	**16 (>120)**	**C (F) SB LT**
6. Grant Ave./Timber Crest Rd./PG&E Way	Signal	Caltrans	A.M.	11	B	10	B
			P.M.	11	B	7	A
7. Grant Ave./Matsumoto Lane/CR 90	Signal	Caltrans	A.M.	9	A	10	A
			P.M.	10	A	10	B
8. Grant Ave./I-505 Southbound Ramps	SSSC	Caltrans	A.M.	1 (23)	A (C) SB TH LT	1 (26)	A (D) SB TH LT
			P.M.	1 (30)	A (D) SB TH LT	1 (33)	A (D) SB TH LT
9. Grant Ave./ I-505 Northbound Ramps	Signal	Caltrans	A.M.	7	A	7	A
			P.M.	9	A	9	A
10. Grant Ave./Street A	SSSC	Caltrans	A.M.	*Future Intersection*		1 (11)	A (B) SB RT
			P.M.			1 (11)	A (B) SB RT

11. Grant Ave./Farmstead Driveway West	SSSC	Caltrans	A.M.	*Future Intersection*	1 (11)	A (B) SB RT
			P.M.		1 (12)	A (B) SB RT
12. Grant Ave./Farmstead Driveway East	SSSC	Caltrans	A.M.	*Future Intersection*	1 (12)	A (B) NB RT
			P.M.		1 (11)	A (B) SB RT
13. East Main St./Broadview Ln.	SSSC	City of Winters	A.M.	*Future Intersection*	4 (10)	A (B)
			P.M.		4 (11)	A (B)

Notes: For signalized, all-way stop controlled (AWSC), and roundabout-controlled (RAB) intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop-controlled (SSSC) intersections, intersection delay is reported in seconds per vehicle for all approaches and for the worst-case movement (in parentheses).
Bold text indicates study intersections that exceed acceptable LOS thresholds.
Bold and grey text indicates study intersections that exceed acceptable LOS thresholds and meet the peak hour signal warrant.
Source: Fehr & Peers, 2024.

EPAP Plus Project Ramp Terminal Queues

Table 8 summarizes the 95th percentile queues that would occur at the I-505/Grant Avenue interchange off-ramps under EPAP Plus Project conditions. As shown, the off-ramp queues would not spill back onto the I-505 mainline.

Table 8: Freeway Off-Ramp Queueing – EPAP Plus Project Conditions

Off-Ramp	Off-Ramp Distance[1]	Peak Hour	95th Percentile Queue Length[2]
Grant Ave./I-505 Southbound Off-Ramp	1,990 feet	A.M.	25 feet
		P.M.	25 feet
Grant Ave./ I-505 Northbound Off-Ramp	2,020 feet	A.M.	100 feet
		P.M.	275 feet

Note: [1] Measured from the intersection stop bar to the gore point of the freeway off-ramp.
[2] Based on results from Synchro traffic operations analysis software.
Queues are maximum per lane, rounded to the nearest 25 feet.
Source: Fehr & Peers, 2024.

EPAP Plus Project Operational Improvements

In order to address the aforementioned operational deficiencies, it is recommended that a traffic signal be installed at the Grant Avenue/East Main Street intersection during Phase 1 of the project. Installation of a traffic signal would improve peak hour traffic operations at this intersection to LOS C during the a.m. and p.m. peak hours. Alternatively, construction of a single-lane roundabout would improve peak hour traffic operations at this intersection to LOS B during the a.m. and p.m. peak hours.

Additionally, it is recommended that the project driveway and intersections on Grant Avenue be constructed as follows to improve overall traffic operations, site access, and multi-modal safety along the Grant Avenue project site frontage:

1. Grant Avenue between Street A and Timber Crest Road/PG&E Way
    a. Two westbound travel lanes between Timber Crest Road/PG&E Way and Street A. These travel lanes should merge into a single lane west of Street A.
    b. Two eastbound travel lanes between East Main Street and Timber Crest Road/PG&E Way.
    c. A center lane for turn pockets, medians, etc.
2. Grant Avenue/Street A intersection
    a. Side-street stop-controlled intersection.
    b. Lane configurations as follows:
        i. Eastbound: A left-turn pocket and a through lane.
        ii. Westbound: A through lane and a shared through-right turn lane.
        iii. Southbound: A right-turn lane.
    c. The Grant Avenue median should be constructed to restrict southbound left-turn movements.
    d. A marked crosswalk should be provided on the north leg of the intersection.
3. Grant Avenue/Project Driveway West
    a. Side-street stop-controlled intersection.
    b. Lane configurations as follows:
        i. Eastbound: A through lane.
        ii. Westbound: A through lane and a shared through-right turn lane.
        iii. Southbound: A right-turn lane.
    c. The Grant Avenue median should be constructed to restrict eastbound left-turn and southbound left-turn movements.
    d. A marked crosswalk should be provided on the north leg of the intersection.
4. Grant Avenue/East Main Street intersection
    a. Signalized intersection.
    b. Lane configurations as follows:
        i. Eastbound: A left-turn pocket, a through lane, and a shared through-right turn pocket.

ii. Westbound: A left-turn pocket, a through lane, and a shared through-right turn lane.
iii. Northbound: A left-turn pocket and a shared through-right turn lane.
iv. Southbound: A left-turn pocket, a through lane, and a right-turn pocket.

c. Provide a single northbound travel lane on the north leg of the intersection.
d. Marked crosswalks should be provided on all four legs of the intersection.

5. Grant Avenue/Project Driveway East
    a. Side-street stop-controlled intersection.
    b. Lane configurations as follows:
        i. Eastbound: Two through lanes.
        ii. Westbound: A through lane and a shared through-right turn lane.
        iii. Southbound: A right-turn lane.
    c. The Grant Avenue median should be constructed to restrict eastbound left-turn and southbound left-turn movements.
    d. A marked crosswalk should be provided on the north leg of the intersection.
6. East Main Street/Broadview Lane
    a. Side-street stop-controlled intersection.
    b. Shared left-through-right lane for each approach.

Cumulative Plus Project Conditions

This scenario considers the operational effects of the buildout of the project alongside reasonably foreseeable land use and transportation system changes identified in the City of Winters General Plan and Circulation Master Plan.

Land Use Changes

This analysis scenario considers the buildout of the City of Winters General Plan and the implementation of the Farmstead Subdivision Project per the land uses presented in Table 9 and an analysis year of 2036.

Table 9: Cumulative Plus Project Land Use Assumptions

Land Use Type	Unit	Quantity
Rural Residential	DU	38
Single Family Residential	DU	1,048
1 & 2 Family Residential	DU	2,290
Multifamily Residential	DU	988
High Density Residential	DU	629
Neighborhood Commercial	ksf	318
Central Business District	ksf	263
Highway Service Commercial	ksf	8
Office	ksf	264
Light Industrial	ksf	614
Heavy Industrial	ksf	757
Gas Station	Pump	36
Hotel	Room	212

Source: Fehr & Peers, 2024.

Transportation System Changes

This analysis scenario includes the transportation system improvements included in the City of Winters Circulation Master Plan, which identifies several roadway network modifications within the study area:

- Extension of East Main Street and Timber Crest Road north of Grant Avenue
- Completion of the Main Street loop
- Construction of Moody Slough Road between County Road 88 and Matsumoto Road
- Widening of Grant Avenue from two to four lanes between East Main Street and I-505
- Extension of Baker Street to PG&E Way
- Installation of new traffic signals at the following intersections:
    - Grant Avenue/East Main Street
    - Grant Avenue/I-505 Southbound Ramps
    - East Main Street/Moody Slough Road
    - Timber Crest Road/Moody Slough Road
- Installation of new roundabouts at the following intersections:
    - Grant Avenue/Dutton Street

- Grant Avenue/Morgan Street

This analysis assumes that the planned Grant Avenue/East Main Street and Grant Avenue/I-505 Southbound Ramps traffic signals are not constructed to isolate the extent to which the project requires their installation.

Cumulative Plus Project Traffic Operations

A.M. and p.m. peak hour traffic volumes at the study intersections under Cumulative Plus Project conditions are illustrated in Figure 8.

Table 10 summarizes the a.m. and p.m. peak hour levels of service at study intersections 5 and 8 under Cumulative Plus Project conditions. Both study intersections would operate unacceptably during both the a.m. and p.m. peak hours under Cumulative Plus Project conditions:

- **Grant Avenue/East Main Street** – During both the a.m. and p.m. peak hours, this intersection would operate with an unacceptable worst-case movement of LOS F and would meet the peak hour signal warrant (Warrants 3A and 3B during the a.m. and p.m. peak hours).
- **Grant Avenue/I-505 Southbound Ramps** – During the a.m. and p.m. peak hours, this intersection would operate with an unacceptable worst-case movement of LOS F. This intersection would meet the peak hour signal warrant (Warrant 3A during the p.m. peak hour and Warrant 3B during the a.m. and p.m. peak hours).

Table 10: Peak Hour Intersection Operations – Cumulative Plus Project Conditions

Intersection	Traffic Control	Jurisdiction	Peak Hour	Cumulative Plus Project Conditions	
				Delay	LOS
5. Grant Ave./East Main St.	SSSC	Caltrans	A.M.	**105 (>120)**	**F (F)**
			P.M.	**>120 (>120)**	**F (F)**
8. Grant Ave./I-505 Southbound Ramps	SSSC	Caltrans	A.M.	**2 (47)**	**A (E) SB LT**
			P.M.	**3 (82)**	**A (F) SB LT**

Notes: For signalized, all-way stop controlled (AWSC), and roundabout-controlled (RAB) intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop-controlled (SSSC) intersections, intersection delay is reported in seconds per vehicle for all approaches and for the worst-case movement (in parentheses).
Bold text indicates study intersections that exceed acceptable LOS thresholds.
Bold and grey text indicates study intersections that exceed acceptable LOS thresholds and meet the peak hour signal warrant.
Source: Fehr & Peers, 2024.

Table 11 summarizes the p.m. peak hour levels of service at the three study roadway segments under Cumulative Plus Project conditions. All three roadway segments would operate at acceptable LOS D under Cumulative Plus Project conditions.

Table 11: P.M. Peak Hour Roadway Segment Operations – Cumulative Plus Project Conditions

	Roadway Segment	Type	Lanes	Separation	P.M. Peak Hour Volume (Two-Way)	Level of Service (LOS)
1.	Grant Ave. – Railroad Ave. to Walnut Ln.	Arterial	2	Raised	1,560	LOS D
2.	Grant Ave. – Morgan St. to East Main St.	Arterial	2	TWLTL	1,370	LOS D
3.	Grant Ave. – East Main St. to I-505 Southbound Ramps	Arterial	4	TWLTL	2,205	LOS D

Source: *Highway Capacity Manual 2000*, Transportation Research Board, 2000; Fehr & Peers, 2024.

Cumulative Plus Project Operational Improvements

The operational improvements described for EPAP Plus Project conditions would similarly apply to Cumulative Plus Project conditions, including the installation of a traffic signal at the Grant Avenue/East Main Street intersection. Installation of a traffic signal at the Grant Avenue/East Main Street intersection would improve peak hour traffic operations at this intersection to LOS C during the a.m. and p.m. peak hours. Alternatively, construction of a single-lane roundabout would improve peak hour traffic operations at this intersection to LOS D during the a.m. peak hour and LOS E during the p.m. peak hour.

Additionally, the traffic signal at the Grant Avenue/I-505 Southbound Ramps should be constructed under Cumulative Plus Project conditions. This improvement is included as a City-wide improvement project in the City's Traffic Impact Fee program. Accordingly, payment of the requisite impact fee to the City's fee program would fulfill the project's mitigation obligation for this improvement.

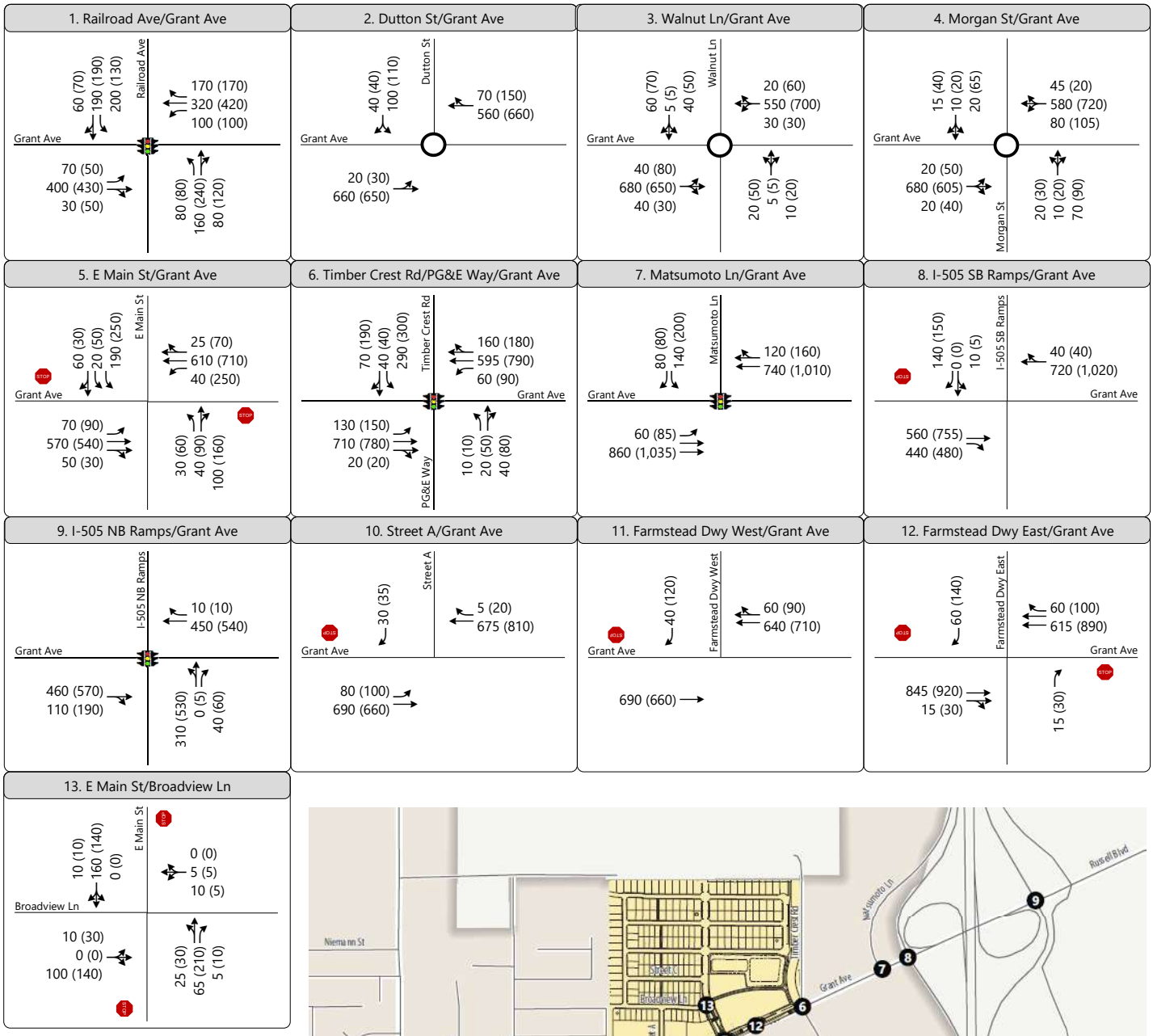


Figure 8

Peak Hour Traffic Volumes and Lane Configurations Cumulative Plus Project Conditions

Appendix

Appendix



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	299	26	68	258	141	36	112	60	222	125	41
Future Volume (veh/h)	52	299	26	68	258	141	36	112	60	222	125	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	59	340	30	77	293	70	41	127	68	252	142	47
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	92	451	40	108	516	708	287	170	91	307	212	70
Arrive On Green	0.05	0.28	0.28	0.06	0.29	0.29	0.17	0.16	0.16	0.18	0.17	0.17
Sat Flow, veh/h	1697	1607	142	1697	1781	1502	1697	1092	585	1697	1268	420
Grp Volume(v), veh/h	59	0	370	77	293	70	41	0	195	252	0	189
Grp Sat Flow(s),veh/h/ln	1697	0	1749	1697	1781	1502	1697	0	1676	1697	0	1688
Q Serve(g_s), s	1.8	0.0	10.4	2.4	7.5	1.4	1.1	0.0	6.0	7.7	0.0	5.7
Cycle Q Clear(g_c), s	1.8	0.0	10.4	2.4	7.5	1.4	1.1	0.0	6.0	7.7	0.0	5.7
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.35	1.00		0.25
Lane Grp Cap(c), veh/h	92	0	491	108	516	708	287	0	261	307	0	283
V/C Ratio(X)	0.64	0.00	0.75	0.71	0.57	0.10	0.14	0.00	0.75	0.82	0.00	0.67
Avail Cap(c_a), veh/h	630	0	1071	630	1091	1193	630	0	840	630	0	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.0	0.0	17.7	24.7	16.3	7.9	19.0	0.0	21.7	21.2	0.0	21.0
Incr Delay (d2), s/veh	2.7	0.0	2.4	3.3	1.0	0.1	0.1	0.0	3.2	2.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	4.0	1.0	2.9	0.4	0.4	0.0	2.4	3.0	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	0.0	20.1	28.0	17.3	8.0	19.1	0.0	24.9	23.3	0.0	23.1
LnGrp LOS	C	A	C	C	B	A	B	A	C	C	A	C
Approach Vol, veh/h		429			440			236			441	
Approach Delay, s/veh		21.1			17.7			23.9			23.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	19.7	13.3	13.2	7.1	20.2	13.9	12.6
Change Period (Y+Rc), s	* 4.2	4.6	* 4.2	* 4.2	* 4.2	4.6	* 4.2	* 4.2
Max Green Setting (Gmax), s	* 20	33.0	* 20	* 27	* 20	33.0	* 20	* 27
Max Q Clear Time (g_c+I1), s	4.4	12.4	3.1	7.7	3.8	9.5	9.7	8.0
Green Ext Time (p_c), s	0.1	2.2	0.0	0.8	0.0	2.0	0.3	0.9

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	567	444	21	20	23
Future Vol, veh/h	14	567	444	21	20	23
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	16	644	505	24	23	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	532	0	-	0	1196	520
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	676	-
Critical Hdwy	4.18	-	-	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.272	-	-	-	3.572	3.372
Pot Cap-1 Maneuver	1006	-	-	-	200	544
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	494	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1003	-	-	-	196	542
Mov Cap-2 Maneuver	-	-	-	-	331	-
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	493	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1003	-	-	-	331	542
HCM Lane V/C Ratio	0.016	-	-	-	0.069	0.048
HCM Control Delay (s)	8.6	-	-	-	16.7	12
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2

Intersection	
Intersection Delay, s/veh	8.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	667	500	18	63
Demand Flow Rate, veh/h	720	539	20	68
Vehicles Circulating, veh/h	31	49	715	533
Vehicles Exiting, veh/h	570	686	36	55
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.9	7.1	6.3	5.7
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	720	539	20	68
Cap Entry Lane, veh/h	1337	1313	665	801
Entry HV Adj Factor	0.926	0.927	0.900	0.926
Flow Entry, veh/h	667	500	18	63
Cap Entry, veh/h	1238	1217	599	742
V/C Ratio	0.539	0.411	0.030	0.085
Control Delay, s/veh	8.9	7.1	6.3	5.7
LOS	A	A	A	A
95th %tile Queue, veh	3	2	0	0

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	528	18	39	467	14	54
Future Vol, veh/h	528	18	39	467	14	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	195	135	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	600	20	44	531	16	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	600	0	1219	600
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	619	-
Critical Hdwy	-	-	4.18	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.272	-	3.572	3.372
Pot Cap-1 Maneuver	-	0	948	-	194	490
Stage 1	-	0	-	-	537	-
Stage 2	-	0	-	-	526	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	948	-	185	490
Mov Cap-2 Maneuver	-	-	-	-	321	-
Stage 1	-	-	-	-	537	-
Stage 2	-	-	-	-	502	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	321	490	-	948	-
HCM Lane V/C Ratio	0.05	0.125	-	0.047	-
HCM Control Delay (s)	16.8	13.4	-	9	-
HCM Lane LOS	C	B	-	A	-
HCM 95th %tile Q(veh)	0.2	0.4	-	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	572	10	21	492	13	55
Future Vol, veh/h	572	10	21	492	13	55
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	325	-	175	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	650	11	24	559	15	63

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	662	0	1258	651
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	607	-
Critical Hdwy	-	-	4.18	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.272	-	3.572	3.372
Pot Cap-1 Maneuver	-	-	899	-	183	458
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	533	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	898	-	178	458
Mov Cap-2 Maneuver	-	-	-	-	178	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	519	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	178	458	-	-	898	-
HCM Lane V/C Ratio	0.083	0.136	-	-	0.027	-
HCM Control Delay (s)	27	14.1	-	-	9.1	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.5	-	-	0.1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	625	0	9	512	0	0	0	2	0	0	1
Future Volume (veh/h)	1	625	0	9	512	0	0	0	2	0	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	0	1781	1781	1781	1781
Adj Flow Rate, veh/h	1	710	0	10	582	0	0	0	2	0	0	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	8	8	8	8	8	0	8	8	8	8
Cap, veh/h	6	1085	0	32	1116	0	6	0	0	0	6	0
Arrive On Green	0.00	0.61	0.00	0.02	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1697	1781	0	1697	1781	0	1697	0		0	-83728	0
Grp Volume(v), veh/h	1	710	0	10	582	0	0	0.0		0	0	0
Grp Sat Flow(s),veh/h/ln	1697	1781	0	1697	1781	0	1697			0	1781	0
Q Serve(g_s), s	0.0	7.3	0.0	0.2	5.1	0.0	0.0			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.3	0.0	0.2	5.1	0.0	0.0			0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	6	1085	0	32	1116	0	6			0	6	0
V/C Ratio(X)	0.17	0.65	0.00	0.32	0.52	0.00	0.00			0.00	0.00	0.00
Avail Cap(c_a), veh/h	1263	3030	0	2225	3030	0	2225			0	1326	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	14.0	3.6	0.0	13.7	2.9	0.0	0.0			0.0	0.0	0.0
Incr Delay (d2), s/veh	4.7	1.0	0.0	7.8	0.5	0.0	0.0			0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.0	0.1	0.2	0.0	0.0			0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	4.5	0.0	21.5	3.5	0.0	0.0			0.0	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	A			A	A	A
Approach Vol, veh/h		711			592						0	
Approach Delay, s/veh		4.6			3.8						0.0	
Approach LOS		A			A							

Timer - Assigned Phs	1	2	3	4	5	6
Phs Duration (G+Y+Rc), s	5.2	23.0	0.0	0.0	4.7	23.5
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	* 4.7	* 4.7	5.8
Max Green Setting (Gmax), s	* 37	48.0	* 37	* 21	* 21	48.0
Max Q Clear Time (g_c+I1), s	2.2	9.3	0.0	0.0	2.0	7.1
Green Ext Time (p_c), s	0.0	7.9	0.0	0.0	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	4.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	494	0	0	459	55	0	0	0	119	0	56
Future Volume (veh/h)	42	494	0	0	459	55	0	0	0	119	0	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	0	0	1781	1781	1781	1781	1781	1781	0	1781
Adj Flow Rate, veh/h	48	561	0	0	522	62	0	0	0	135	0	3
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	0	0	8	8	8	8	8	8	0	8
Cap, veh/h	108	1056	0	0	955	113	0	5	0	212	0	0
Arrive On Green	0.06	0.59	0.00	0.00	0.39	0.39	0.00	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1697	1781	0	0	3220	291	0	-81946	0	1697	135	
Grp Volume(v), veh/h	48	561	0	0	215	369	0	0	0	135	15.8	
Grp Sat Flow(s),veh/h/ln	1697	1781	0	0	1015	1729	0	1781	0	1697	B	
Q Serve(g_s), s	1.0	6.6	0.0	0.0	5.8	5.8	0.0	0.0	0.0	2.7		
Cycle Q Clear(g_c), s	1.0	6.6	0.0	0.0	5.8	5.8	0.0	0.0	0.0	2.7		
Prop In Lane	1.00		0.00	0.00		0.17	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	108	1056	0	0	395	673	0	5	0	212		
V/C Ratio(X)	0.44	0.53	0.00	0.00	0.55	0.55	0.00	0.00	0.00	0.64		
Avail Cap(c_a), veh/h	1257	2844	0	0	1621	2760	0	2945	0	1257		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	15.8	4.2	0.0	0.0	8.3	8.3	0.0	0.0	0.0	14.6		
Incr Delay (d2), s/veh	1.1	0.9	0.0	0.0	2.5	1.5	0.0	0.0	0.0	1.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.3	0.6	0.0	0.0	0.9	1.4	0.0	0.0	0.0	0.9		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	5.1	0.0	0.0	10.8	9.8	0.0	0.0	0.0	15.8		
LnGrp LOS	B	A	A	A	B	A	A	A	A	B		
Approach Vol, veh/h		609			584			0				
Approach Delay, s/veh		6.1			10.2			0.0				
Approach LOS		A			B							

Timer - Assigned Phs	2			5	6	7	8					
Phs Duration (G+Y+Rc), s	26.1			7.1	18.9	9.0	0.0					
Change Period (Y+Rc), s	5.3			4.9	5.3	4.6	4.6					
Max Green Setting (Gmax), s	56.0			26.0	56.0	26.0	58.0					
Max Q Clear Time (g_c+I1), s	8.6			3.0	7.8	4.7	0.0					
Green Ext Time (p_c), s	6.1			0.1	5.8	0.2	0.0					

Intersection Summary												
HCM 6th Ctrl Delay			8.9									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	362	250	3	429	26	0	0	0	7	0	85
Future Vol, veh/h	0	362	250	3	429	26	0	0	0	7	0	85
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	0	411	284	3	488	30	0	0	0	8	0	97

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	696	0	0	1047	1190	488
Stage 1	-	-	-	-	-	-	494	494	-
Stage 2	-	-	-	-	-	-	553	696	-
Critical Hdwy	-	-	-	4.18	-	-	6.48	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	5.48	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.48	5.58	-
Follow-up Hdwy	-	-	-	2.272	-	-	3.572	4.072	3.372
Pot Cap-1 Maneuver	0	-	-	873	-	0	246	183	568
Stage 1	0	-	-	-	-	0	601	537	-
Stage 2	0	-	-	-	-	0	564	434	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	873	-	-	245	0	568
Mov Cap-2 Maneuver	-	-	-	-	-	-	245	0	-
Stage 1	-	-	-	-	-	-	601	0	-
Stage 2	-	-	-	-	-	-	561	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	873	-	245	568
HCM Lane V/C Ratio	-	-	0.004	-	0.032	0.17
HCM Control Delay (s)	-	-	9.1	-	20.2	12.6
HCM Lane LOS	-	-	A	-	C	B
HCM 95th %tile Q(veh)	-	-	0	-	0.1	0.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	321	47	0	292	8	168	0	30	0	0	0
Future Volume (veh/h)	0	321	47	0	292	8	168	0	30	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1781	1781	0	1781	1781	1781	1781	1781			
Adj Flow Rate, veh/h	0	365	0	0	332	3	191	0	6			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	8	8	0	8	8	8	8	8			
Cap, veh/h	0	601		0	601	509	335	0	298			
Arrive On Green	0.00	0.34	0.00	0.00	0.34	0.34	0.20	0.00	0.20			
Sat Flow, veh/h	0	1781	0	0	1781	1510	1697	0	1510			
Grp Volume(v), veh/h	0	365	0	0	332	3	191	0	6			
Grp Sat Flow(s),veh/h/ln	0	1781	0	0	1781	1510	1697	0	1510			
Q Serve(g_s), s	0.0	3.5	0.0	0.0	3.1	0.0	2.1	0.0	0.1			
Cycle Q Clear(g_c), s	0.0	3.5	0.0	0.0	3.1	0.0	2.1	0.0	0.1			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	601		0	601	509	335	0	298			
V/C Ratio(X)	0.00	0.61		0.00	0.55	0.01	0.57	0.00	0.02			
Avail Cap(c_a), veh/h	0	4011		0	4011	3400	2990	0	2661			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.6	0.0	0.0	5.5	4.5	7.4	0.0	6.6			
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.0	0.8	0.0	0.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.0	0.0	0.2	0.0	0.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.6	0.0	0.0	6.3	4.5	8.0	0.0	6.6			
LnGrp LOS	A	A		A	A	A	A	A	A			
Approach Vol, veh/h		365			335			197				
Approach Delay, s/veh		6.6			6.3			7.9				
Approach LOS		A			A			A				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		12.2				12.2		8.2				
Change Period (Y+Rc), s		5.3				5.3		4.2				
Max Green Setting (Gmax), s		46.0				46.0		36.0				
Max Q Clear Time (g_c+I1), s		5.5				5.1		4.1				
Green Ext Time (p_c), s		1.4				1.3		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	378	42	70	338	165	74	102	73	127	90	48
Future Volume (veh/h)	31	378	42	70	338	165	74	102	73	127	90	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	33	406	45	75	363	91	80	110	78	137	97	52
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	65	529	59	115	651	707	189	151	107	178	161	86
Arrive On Green	0.04	0.33	0.33	0.07	0.35	0.35	0.11	0.15	0.15	0.10	0.14	0.14
Sat Flow, veh/h	1753	1628	180	1753	1841	1551	1753	1002	711	1753	1112	596
Grp Volume(v), veh/h	33	0	451	75	363	91	80	0	188	137	0	149
Grp Sat Flow(s),veh/h/ln	1753	0	1808	1753	1841	1551	1753	0	1713	1753	0	1708
Q Serve(g_s), s	0.9	0.0	10.8	2.0	7.7	1.6	2.1	0.0	5.0	3.7	0.0	3.9
Cycle Q Clear(g_c), s	0.9	0.0	10.8	2.0	7.7	1.6	2.1	0.0	5.0	3.7	0.0	3.9
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.41	1.00		0.35
Lane Grp Cap(c), veh/h	65	0	588	115	651	707	189	0	259	178	0	247
V/C Ratio(X)	0.51	0.00	0.77	0.65	0.56	0.13	0.42	0.00	0.73	0.77	0.00	0.60
Avail Cap(c_a), veh/h	727	0	1237	727	1260	1220	727	0	959	727	0	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.8	0.0	14.6	22.0	12.5	7.6	20.1	0.0	19.5	21.1	0.0	19.3
Incr Delay (d2), s/veh	2.3	0.0	2.1	2.3	0.7	0.1	0.6	0.0	2.9	2.7	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	4.0	0.8	2.7	0.5	0.8	0.0	2.0	1.5	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	0.0	16.8	24.3	13.3	7.7	20.7	0.0	22.4	23.8	0.0	21.1
LnGrp LOS	C	A	B	C	B	A	C	A	C	C	A	C
Approach Vol, veh/h		484			529			268			286	
Approach Delay, s/veh		17.3			13.9			21.9			22.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	20.3	9.4	11.2	6.0	21.7	9.1	11.5
Change Period (Y+Rc), s	* 4.2	4.6	* 4.2	* 4.2	* 4.2	4.6	* 4.2	* 4.2
Max Green Setting (Gmax), s	* 20	33.0	* 20	* 27	* 20	33.0	* 20	* 27
Max Q Clear Time (g_c+I1), s	4.0	12.8	4.1	5.9	2.9	9.7	5.7	7.0
Green Ext Time (p_c), s	0.1	2.8	0.0	0.6	0.0	2.5	0.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	568	554	31	22	19
Future Vol, veh/h	10	568	554	31	22	19
Conflicting Peds, #/hr	2	0	0	2	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	11	611	596	33	24	20

Major/Minor	Major1			Major2		
Conflicting Flow All	631	0	-	0	1250	615
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	635	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	942	-	-	-	189	488
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	940	-	-	-	186	487
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	523	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	940	-	-	-	325	487
HCM Lane V/C Ratio	0.011	-	-	-	0.073	0.042
HCM Control Delay (s)	8.9	-	-	-	16.9	12.7
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.1

Intersection	
Intersection Delay, s/veh	8.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	634	608	32	75
Demand Flow Rate, veh/h	659	632	33	78
Vehicles Circulating, veh/h	39	78	676	615
Vehicles Exiting, veh/h	654	631	22	95
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.1	8.3	5.9	6.2
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	659	632	33	78
Cap Entry Lane, veh/h	1326	1274	692	737
Entry HV Adj Factor	0.962	0.962	0.970	0.962
Flow Entry, veh/h	634	608	32	75
Cap Entry, veh/h	1276	1226	672	709
V/C Ratio	0.497	0.496	0.048	0.106
Control Delay, s/veh	8.1	8.3	5.9	6.2
LOS	A	A	A	A
95th %tile Queue, veh	3	3	0	0

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	536	21	70	503	23	52
Future Vol, veh/h	536	21	70	503	23	52
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	195	135	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	576	23	75	541	25	56

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	578	0	1269	578
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	691	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	0	986	-	184	512
Stage 1	-	0	-	-	557	-
Stage 2	-	0	-	-	494	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	984	-	170	511
Mov Cap-2 Maneuver	-	-	-	-	305	-
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	456	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	305	511	-	984	-
HCM Lane V/C Ratio	0.081	0.109	-	0.076	-
HCM Control Delay (s)	17.8	12.9	-	9	-
HCM Lane LOS	C	B	-	A	-
HCM 95th %tile Q(veh)	0.3	0.4	-	0.2	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	571	14	59	567	6	45
Future Vol, veh/h	571	14	59	567	6	45
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	325	-	175	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	614	15	63	610	6	48

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	631	0	1352	616
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	736	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	942	-	164	487
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	940	-	153	486
Mov Cap-2 Maneuver	-	-	-	-	153	-
Stage 1	-	-	-	-	534	-
Stage 2	-	-	-	-	439	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	153	486	-	-	940	-
HCM Lane V/C Ratio	0.042	0.1	-	-	0.067	-
HCM Control Delay (s)	29.6	13.2	-	-	9.1	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	612	1	2	623	0	1	0	4	0	0	1
Future Volume (veh/h)	1	612	1	2	623	0	1	0	4	0	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	0	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	658	1	2	670	0	1	0	0	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	0	4	4	4	4
Cap, veh/h	4	924	1	7	929	0	4	0	0	0	0	3
Arrive On Green	0.00	0.50	0.50	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1837	3	1753	1841	0	1753	1		0	0	1050
Grp Volume(v), veh/h	1	0	659	2	670	0	1	30.1		0	0	1
Grp Sat Flow(s),veh/h/ln	1753	0	1840	1753	1841	0	1753	C		0	0	1050
Q Serve(g_s), s	0.0	0.0	11.3	0.0	11.5	0.0	0.0			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.3	0.0	11.5	0.0	0.0			0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00			0.00		1.00
Lane Grp Cap(c), veh/h	4	0	925	7	929	0	4			0	0	3
V/C Ratio(X)	0.23	0.00	0.71	0.30	0.72	0.00	0.23			0.00	0.00	0.39
Avail Cap(c_a), veh/h	906	0	2174	1597	2175	0	1597			0	0	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	7.8	20.2	7.8	0.0	20.2			0.0	0.0	20.2
Incr Delay (d2), s/veh	9.8	0.0	1.5	31.5	1.5	0.0	9.8			0.0	0.0	31.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.5	0.1	2.5	0.0	0.0			0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	9.3	51.7	9.3	0.0	30.1			0.0	0.0	51.9
LnGrp LOS	C	A	A	D	A	A	C			A	A	D
Approach Vol, veh/h		660			672						1	
Approach Delay, s/veh		9.3			9.5						51.9	
Approach LOS		A			A						D	

Timer - Assigned Phs	1	2	3	4	5	6
Phs Duration (G+Y+Rc), s	4.9	26.2	4.8	4.8	4.8	26.3
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	* 4.7	* 4.7	5.8
Max Green Setting (Gmax), s	* 37	48.0	* 37	* 21	* 21	48.0
Max Q Clear Time (g_c+I1), s	2.0	13.3	2.0	2.0	2.0	13.5
Green Ext Time (p_c), s	0.0	6.8	0.0	0.0	0.0	7.0

Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	514	0	0	560	80	0	0	0	113	0	60
Future Volume (veh/h)	69	514	0	0	560	80	0	0	0	113	0	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841	1841	0	1841
Adj Flow Rate, veh/h	74	553	0	0	602	86	0	0	0	122	0	4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4	4	0	4
Cap, veh/h	149	1165	0	0	1044	149	0	5	0	198	0	0
Arrive On Green	0.08	0.63	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.11	0.00	0.00
Sat Flow, veh/h	1753	1841	0	0	3265	353	0	-84673	0	1753	122	
Grp Volume(v), veh/h	74	553	0	0	255	433	0	0	0	122	17.6	
Grp Sat Flow(s),veh/h/ln	1753	1841	0	0	1049	1777	0	1841	0	1753	B	
Q Serve(g_s), s	1.6	6.1	0.0	0.0	7.2	7.2	0.0	0.0	0.0	2.6		
Cycle Q Clear(g_c), s	1.6	6.1	0.0	0.0	7.2	7.2	0.0	0.0	0.0	2.6		
Prop In Lane	1.00		0.00	0.00		0.20	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	149	1165	0	0	443	750	0	5	0	198		
V/C Ratio(X)	0.50	0.47	0.00	0.00	0.58	0.58	0.00	0.00	0.00	0.62		
Avail Cap(c_a), veh/h	1171	2648	0	0	1509	2557	0	2743	0	1171		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	17.0	3.8	0.0	0.0	8.6	8.6	0.0	0.0	0.0	16.5		
Incr Delay (d2), s/veh	1.0	0.6	0.0	0.0	2.5	1.5	0.0	0.0	0.0	1.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.5	0.5	0.0	0.0	1.2	1.9	0.0	0.0	0.0	0.9		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	4.4	0.0	0.0	11.1	10.1	0.0	0.0	0.0	17.6		
LnGrp LOS	B	A	A	A	B	B	A	A	A	B		
Approach Vol, veh/h		627			688			0				
Approach Delay, s/veh		6.0			10.5			0.0				
Approach LOS		A			B							
Timer - Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		29.9			8.2	21.7	9.0	0.0				
Change Period (Y+Rc), s		5.3			4.9	5.3	4.6	4.6				
Max Green Setting (Gmax), s		56.0			26.0	56.0	26.0	58.0				
Max Q Clear Time (g_c+I1), s		8.1			3.6	9.2	4.6	0.0				
Green Ext Time (p_c), s		6.0			0.1	7.2	0.2	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	422	206	10	586	31	0	0	0	4	0	63
Future Vol, veh/h	0	422	206	10	586	31	0	0	0	4	0	63
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	454	222	11	630	33	0	0	0	4	0	68

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	678	0	0	1217	1330	630
Stage 1	-	-	-	-	-	-	652	652	-
Stage 2	-	-	-	-	-	-	565	678	-
Critical Hdwy	-	-	-	4.14	-	-	6.44	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	5.44	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.44	5.54	-
Follow-up Hdwy	-	-	-	2.236	-	-	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	905	-	0	198	153	478
Stage 1	0	-	-	-	-	0	515	461	-
Stage 2	0	-	-	-	-	0	565	449	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	905	-	-	194	0	478
Mov Cap-2 Maneuver	-	-	-	-	-	-	194	0	-
Stage 1	-	-	-	-	-	-	515	0	-
Stage 2	-	-	-	-	-	-	554	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.2	14.4
HCM LOS			B

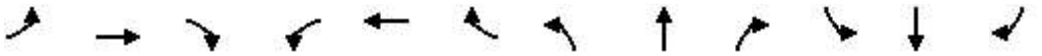
Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	905	-	194	478
HCM Lane V/C Ratio	-	-	0.012	-	0.022	0.142
HCM Control Delay (s)	-	-	9	-	24	13.8
HCM Lane LOS	-	-	A	-	C	B
HCM 95th %tile Q(veh)	-	-	0	-	0.1	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	334	92	0	308	9	319	1	47	0	0	0
Future Volume (veh/h)	0	334	92	0	308	9	319	1	47	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	0	359	0	0	331	4	343	1	14			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	4	4	0	4	4	4	4	4			
Cap, veh/h	0	584		0	584	495	465	1	415			
Arrive On Green	0.00	0.32	0.00	0.00	0.32	0.32	0.27	0.27	0.27			
Sat Flow, veh/h	0	1841	0	0	1841	1560	1748	5	1560			
Grp Volume(v), veh/h	0	359	0	0	331	4	344	0	14			
Grp Sat Flow(s),veh/h/ln	0	1841	0	0	1841	1560	1753	0	1560			
Q Serve(g_s), s	0.0	3.8	0.0	0.0	3.4	0.0	4.1	0.0	0.2			
Cycle Q Clear(g_c), s	0.0	3.8	0.0	0.0	3.4	0.0	4.1	0.0	0.2			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	584		0	584	495	466	0	415			
V/C Ratio(X)	0.00	0.61		0.00	0.57	0.01	0.74	0.00	0.03			
Avail Cap(c_a), veh/h	0	3715		0	3715	3148	2769	0	2464			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	6.6	0.0	0.0	6.5	5.3	7.6	0.0	6.2			
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.9	0.0	0.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.5	0.0	0.0	0.5	0.0	0.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.7	0.0	0.0	7.3	5.3	8.5	0.0	6.2			
LnGrp LOS	A	A		A	A	A	A	A	A			
Approach Vol, veh/h		359			335			358				
Approach Delay, s/veh		7.7			7.3			8.4				
Approach LOS		A			A			A				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		12.5				12.5		10.3				
Change Period (Y+Rc), s		5.3				5.3		4.2				
Max Green Setting (Gmax), s		46.0				46.0		36.0				
Max Q Clear Time (g_c+I1), s		5.8				5.4		6.1				
Green Ext Time (p_c), s		1.4				1.3		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	310	30	80	280	165	40	120	70	240	140	50
Future Volume (veh/h)	60	310	30	80	280	165	40	120	70	240	140	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	68	352	31	91	318	114	45	136	55	273	159	49
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	98	457	40	116	524	733	281	182	73	327	230	71
Arrive On Green	0.06	0.28	0.28	0.07	0.29	0.29	0.17	0.15	0.15	0.19	0.18	0.18
Sat Flow, veh/h	1697	1608	142	1697	1781	1502	1697	1206	488	1697	1294	399
Grp Volume(v), veh/h	68	0	383	91	318	114	45	0	191	273	0	208
Grp Sat Flow(s),veh/h/ln	1697	0	1749	1697	1781	1502	1697	0	1694	1697	0	1693
Q Serve(g_s), s	2.2	0.0	11.3	3.0	8.7	2.4	1.3	0.0	6.1	8.7	0.0	6.5
Cycle Q Clear(g_c), s	2.2	0.0	11.3	3.0	8.7	2.4	1.3	0.0	6.1	8.7	0.0	6.5
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.29	1.00		0.24
Lane Grp Cap(c), veh/h	98	0	497	116	524	733	281	0	255	327	0	301
V/C Ratio(X)	0.69	0.00	0.77	0.79	0.61	0.16	0.16	0.00	0.75	0.84	0.00	0.69
Avail Cap(c_a), veh/h	600	0	1021	600	1040	1168	600	0	809	600	0	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.1	0.0	18.5	25.9	17.1	8.0	20.2	0.0	23.0	21.9	0.0	21.8
Incr Delay (d2), s/veh	3.2	0.0	2.6	4.4	1.1	0.1	0.1	0.0	3.3	2.2	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	4.5	1.3	3.3	0.7	0.5	0.0	2.5	3.4	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	21.1	30.3	18.3	8.1	20.3	0.0	26.2	24.1	0.0	23.9
LnGrp LOS	C	A	C	C	B	A	C	A	C	C	A	C
Approach Vol, veh/h		451			523			236			481	
Approach Delay, s/veh		22.3			18.2			25.1			24.0	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	20.7	13.6	14.2	7.5	21.2	15.1	12.7
Change Period (Y+Rc), s	* 4.2	4.6	* 4.2	* 4.2	* 4.2	4.6	* 4.2	* 4.2
Max Green Setting (Gmax), s	* 20	33.0	* 20	* 27	* 20	33.0	* 20	* 27
Max Q Clear Time (g_c+I1), s	5.0	13.3	3.3	8.5	4.2	10.7	10.7	8.1
Green Ext Time (p_c), s	0.1	2.3	0.0	0.9	0.1	2.3	0.3	0.9

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	590	505	30	30	30
Future Vol, veh/h	20	590	505	30	30	30
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	23	670	574	34	34	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	611	0	-	0	1310	594
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	716	-
Critical Hdwy	4.18	-	-	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.272	-	-	-	3.572	3.372
Pot Cap-1 Maneuver	939	-	-	-	170	494
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	936	-	-	-	165	493
Mov Cap-2 Maneuver	-	-	-	-	302	-
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	472	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	936	-	-	-	302	493
HCM Lane V/C Ratio	0.024	-	-	-	0.113	0.069
HCM Control Delay (s)	8.9	-	-	-	18.4	12.8
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	0.2

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	704	562	40	119
Demand Flow Rate, veh/h	761	607	43	128
Vehicles Circulating, veh/h	67	80	773	607
Vehicles Exiting, veh/h	668	736	55	80
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.2	8.2	7.0	7.2
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	761	607	43	128
Cap Entry Lane, veh/h	1289	1272	627	743
Entry HV Adj Factor	0.925	0.925	0.920	0.926
Flow Entry, veh/h	704	562	40	119
Cap Entry, veh/h	1192	1177	577	688
V/C Ratio	0.591	0.477	0.069	0.172
Control Delay, s/veh	10.2	8.2	7.0	7.2
LOS	B	A	A	A
95th %tile Queue, veh	4	3	0	1

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	570	20	40	525	20	60
Future Vol, veh/h	570	20	40	525	20	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	195	135	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	648	23	45	597	23	68

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	648	0	1335	648
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	687	-
Critical Hdwy	-	-	4.18	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.272	-	3.572	3.372
Pot Cap-1 Maneuver	-	0	910	-	164	460
Stage 1	-	0	-	-	510	-
Stage 2	-	0	-	-	488	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	910	-	156	460
Mov Cap-2 Maneuver	-	-	-	-	293	-
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	464	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	15.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	293	460	-	910	-
HCM Lane V/C Ratio	0.078	0.148	-	0.05	-
HCM Control Delay (s)	18.3	14.2	-	9.2	-
HCM Lane LOS	C	B	-	A	-
HCM 95th %tile Q(veh)	0.2	0.5	-	0.2	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	620	10	30	530	35	45
Future Vol, veh/h	620	10	30	530	35	45
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	325	-	175	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	705	11	34	602	40	51

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	717	0	1376	706
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	670	-
Critical Hdwy	-	-	4.18	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.272	-	3.572	3.372
Pot Cap-1 Maneuver	-	-	857	-	155	426
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	856	-	149	426
Mov Cap-2 Maneuver	-	-	-	-	149	-
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	478	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	24.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	149	426	-	-	856	-
HCM Lane V/C Ratio	0.267	0.12	-	-	0.04	-
HCM Control Delay (s)	37.7	14.6	-	-	9.4	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	1	0.4	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	655	5	30	550	0	5	0	40	0	0	5
Future Volume (veh/h)	5	655	5	30	550	0	5	0	40	0	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	0	1781	1781	1781	1781
Adj Flow Rate, veh/h	6	744	6	34	625	0	6	0	45	0	0	5
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	8	8	8	8	8	0	8	8	8	8
Cap, veh/h	16	944	8	89	1030	0	19	0	0	0	0	12
Arrive On Green	0.01	0.54	0.54	0.05	0.58	0.00	0.01	0.00	0.00	0.00	0.00	0.01
Sat Flow, veh/h	1697	1765	14	1697	1781	0	1697	6		0	0	1510
Grp Volume(v), veh/h	6	0	750	34	625	0	6	28.3		0	0	5
Grp Sat Flow(s),veh/h/ln	1697	0	1779	1697	1781	0	1697	C		0	0	1510
Q Serve(g_s), s	0.2	0.0	17.2	1.0	11.5	0.0	0.2			0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.2	0.0	17.2	1.0	11.5	0.0	0.2			0.0	0.0	0.2
Prop In Lane	1.00		0.01	1.00		0.00	1.00			0.00		1.00
Lane Grp Cap(c), veh/h	16	0	952	89	1030	0	19			0	0	12
V/C Ratio(X)	0.37	0.00	0.79	0.38	0.61	0.00	0.32			0.00	0.00	0.41
Avail Cap(c_a), veh/h	704	0	1687	1240	1689	0	1240			0	0	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	1.00
Uniform Delay (d), s/veh	24.9	0.0	9.5	23.2	6.9	0.0	24.8			0.0	0.0	25.0
Incr Delay (d2), s/veh	5.1	0.0	2.1	3.8	0.8	0.0	3.5			0.0	0.0	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	4.4	0.4	2.5	0.0	0.1			0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	11.6	27.0	7.8	0.0	28.3			0.0	0.0	33.1
LnGrp LOS	C	A	B	C	A	A	C			A	A	C
Approach Vol, veh/h		756			659						5	
Approach Delay, s/veh		11.7			8.8						33.1	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2	3	4	5	6
Phs Duration (G+Y+Rc), s	7.4	32.9	5.3	5.1	5.2	35.1
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	* 4.7	* 4.7	5.8
Max Green Setting (Gmax), s	* 37	48.0	* 37	* 21	* 21	48.0
Max Q Clear Time (g_c+I1), s	3.0	19.2	2.2	2.2	2.2	13.5
Green Ext Time (p_c), s	0.1	7.9	0.0	0.0	0.0	6.4

Intersection Summary	
HCM 6th Ctrl Delay	10.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	540	0	0	510	70	0	0	0	130	0	60
Future Volume (veh/h)	50	540	0	0	510	70	0	0	0	130	0	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	0	0	1781	1781	1781	1781	1781	1781	0	1781
Adj Flow Rate, veh/h	57	614	0	0	580	78	0	0	0	148	0	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	0	0	8	8	8	8	8	8	0	8
Cap, veh/h	121	1097	0	0	1004	135	0	5	0	211	0	0
Arrive On Green	0.07	0.62	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.12	0.00	0.00
Sat Flow, veh/h	1697	1781	0	0	3180	324	0	-81946	0	1697	148	
Grp Volume(v), veh/h	57	614	0	0	243	415	0	0	0	148	17.6	
Grp Sat Flow(s),veh/h/ln	1697	1781	0	0	1015	1723	0	1781	0	1697	B	
Q Serve(g_s), s	1.2	7.7	0.0	0.0	7.0	7.1	0.0	0.0	0.0	3.2		
Cycle Q Clear(g_c), s	1.2	7.7	0.0	0.0	7.0	7.1	0.0	0.0	0.0	3.2		
Prop In Lane	1.00		0.00	0.00		0.19	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	121	1097	0	0	422	717	0	5	0	211		
V/C Ratio(X)	0.47	0.56	0.00	0.00	0.58	0.58	0.00	0.00	0.00	0.70		
Avail Cap(c_a), veh/h	1157	2617	0	0	1492	2531	0	2710	0	1157		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	17.0	4.3	0.0	0.0	8.6	8.6	0.0	0.0	0.0	16.0		
Incr Delay (d2), s/veh	1.1	1.0	0.0	0.0	2.6	1.6	0.0	0.0	0.0	1.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.4	0.8	0.0	0.0	1.1	1.7	0.0	0.0	0.0	1.1		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	5.3	0.0	0.0	11.2	10.1	0.0	0.0	0.0	17.6		
LnGrp LOS	B	A	A	A	B	B	A	A	A	B		
Approach Vol, veh/h		671			658			0				
Approach Delay, s/veh		6.3			10.5			0.0				
Approach LOS		A			B							

Timer - Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		28.8			7.6	21.2	9.3	0.0				
Change Period (Y+Rc), s		5.3			4.9	5.3	4.6	4.6				
Max Green Setting (Gmax), s		56.0			26.0	56.0	26.0	58.0				
Max Q Clear Time (g_c+I1), s		9.7			3.2	9.1	5.2	0.0				
Green Ext Time (p_c), s		7.0			0.1	6.8	0.3	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			9.3									
HCM 6th LOS			A									

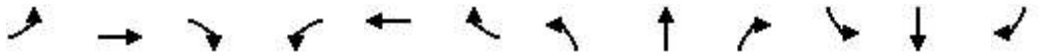
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	390	280	0	490	30	0	0	0	10	0	90
Future Vol, veh/h	0	390	280	0	490	30	0	0	0	10	0	90
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	0	443	318	0	557	34	0	0	0	11	0	102

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	-	-	0	1159	1319	557
Stage 1	-	-	-	-	-	-	557	557	-
Stage 2	-	-	-	-	-	-	602	762	-
Critical Hdwy	-	-	-	-	-	-	6.48	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	5.48	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.48	5.58	-
Follow-up Hdwy	-	-	-	-	-	-	3.572	4.072	3.372
Pot Cap-1 Maneuver	0	-	-	0	-	0	211	153	519
Stage 1	0	-	-	0	-	0	562	503	-
Stage 2	0	-	-	0	-	0	535	405	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	-	-	-	211	0	519
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	0	-
Stage 1	-	-	-	-	-	-	562	0	-
Stage 2	-	-	-	-	-	-	535	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	211	519
HCM Lane V/C Ratio	-	-	-	0.054	0.197
HCM Control Delay (s)	-	-	-	23	13.6
HCM Lane LOS	-	-	-	C	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	350	50	0	330	10	190	0	30	0	0	0
Future Volume (veh/h)	0	350	50	0	330	10	190	0	30	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1781	1781	0	1781	1781	1781	1781	1781			
Adj Flow Rate, veh/h	0	398	0	0	375	9	216	0	9			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	8	8	0	8	8	8	8	8			
Cap, veh/h	0	627		0	627	531	350	0	311			
Arrive On Green	0.00	0.35	0.00	0.00	0.35	0.35	0.21	0.00	0.21			
Sat Flow, veh/h	0	1781	0	0	1781	1510	1697	0	1510			
Grp Volume(v), veh/h	0	398	0	0	375	9	216	0	9			
Grp Sat Flow(s),veh/h/ln	0	1781	0	0	1781	1510	1697	0	1510			
Q Serve(g_s), s	0.0	4.0	0.0	0.0	3.7	0.1	2.5	0.0	0.1			
Cycle Q Clear(g_c), s	0.0	4.0	0.0	0.0	3.7	0.1	2.5	0.0	0.1			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	627		0	627	531	350	0	311			
V/C Ratio(X)	0.00	0.64		0.00	0.60	0.02	0.62	0.00	0.03			
Avail Cap(c_a), veh/h	0	3813		0	3813	3231	2842	0	2529			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.8	0.0	0.0	5.7	4.5	7.8	0.0	6.8			
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.9	0.0	0.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.0	0.0	0.3	0.0	0.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.9	0.0	0.0	6.6	4.6	8.4	0.0	6.8			
LnGrp LOS	A	A		A	A	A	A	A	A			
Approach Vol, veh/h		398			384			225				
Approach Delay, s/veh		6.9			6.6			8.4				
Approach LOS		A			A			A				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		12.9				12.9		8.6				
Change Period (Y+Rc), s		5.3				5.3		4.2				
Max Green Setting (Gmax), s		46.0				46.0		36.0				
Max Q Clear Time (g_c+I1), s		6.0				5.7		4.5				
Green Ext Time (p_c), s		1.6				1.5		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	380	50	70	340	180	80	120	90	130	130	60
Future Volume (veh/h)	40	380	50	70	340	180	80	120	90	130	130	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	409	52	75	366	109	86	129	74	140	140	50
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	79	526	67	113	641	701	174	176	101	181	211	75
Arrive On Green	0.04	0.33	0.33	0.06	0.35	0.35	0.10	0.16	0.16	0.10	0.16	0.16
Sat Flow, veh/h	1753	1600	203	1753	1841	1551	1753	1098	630	1753	1283	458
Grp Volume(v), veh/h	43	0	461	75	366	109	86	0	203	140	0	190
Grp Sat Flow(s),veh/h/ln	1753	0	1804	1753	1841	1551	1753	0	1727	1753	0	1741
Q Serve(g_s), s	1.2	0.0	11.6	2.1	8.1	2.1	2.3	0.0	5.6	3.9	0.0	5.1
Cycle Q Clear(g_c), s	1.2	0.0	11.6	2.1	8.1	2.1	2.3	0.0	5.6	3.9	0.0	5.1
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.36	1.00		0.26
Lane Grp Cap(c), veh/h	79	0	592	113	641	701	174	0	277	181	0	287
V/C Ratio(X)	0.55	0.00	0.78	0.66	0.57	0.16	0.49	0.00	0.73	0.77	0.00	0.66
Avail Cap(c_a), veh/h	699	0	1187	699	1212	1182	699	0	930	699	0	938
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	15.2	22.9	13.3	8.1	21.4	0.0	20.0	21.9	0.0	19.6
Incr Delay (d2), s/veh	2.2	0.0	2.3	2.5	0.8	0.1	0.8	0.0	2.8	2.6	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	4.4	0.9	3.0	0.6	0.9	0.0	2.3	1.6	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	0.0	17.4	25.4	14.1	8.2	22.2	0.0	22.8	24.5	0.0	21.6
LnGrp LOS	C	A	B	C	B	A	C	A	C	C	A	C
Approach Vol, veh/h		504			550			289			330	
Approach Delay, s/veh		18.1			14.5			22.6			22.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	21.1	9.2	12.5	6.5	22.1	9.4	12.2
Change Period (Y+Rc), s	* 4.2	4.6	* 4.2	* 4.2	* 4.2	4.6	* 4.2	* 4.2
Max Green Setting (Gmax), s	* 20	33.0	* 20	* 27	* 20	33.0	* 20	* 27
Max Q Clear Time (g_c+I1), s	4.1	13.6	4.3	7.1	3.2	10.1	5.9	7.6
Green Ext Time (p_c), s	0.1	2.9	0.0	0.8	0.0	2.6	0.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	590	570	40	30	20
Future Vol, veh/h	10	590	570	40	30	20
Conflicting Peds, #/hr	2	0	0	2	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	11	634	613	43	32	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	658	0	-	0	1295	637
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	658	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	920	-	-	-	177	474
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	511	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	918	-	-	-	174	473
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	510	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	918	-	-	-	314	473
HCM Lane V/C Ratio	0.012	-	-	-	0.103	0.045
HCM Control Delay (s)	9	-	-	-	17.8	13
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0.1

Intersection	
Intersection Delay, s/veh	9.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	668	646	59	124
Demand Flow Rate, veh/h	695	672	61	129
Vehicles Circulating, veh/h	84	106	728	637
Vehicles Exiting, veh/h	682	683	51	141
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.2	9.3	6.7	7.2
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	695	672	61	129
Cap Entry Lane, veh/h	1267	1238	657	721
Entry HV Adj Factor	0.961	0.961	0.964	0.960
Flow Entry, veh/h	668	646	59	124
Cap Entry, veh/h	1217	1190	633	692
V/C Ratio	0.549	0.543	0.093	0.179
Control Delay, s/veh	9.2	9.3	6.7	7.2
LOS	A	A	A	A
95th %tile Queue, veh	3	3	0	1

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	560	40	70	565	30	90
Future Vol, veh/h	560	40	70	565	30	90
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	195	135	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	602	43	75	608	32	97

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	604	0	1362	604
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	758	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	0	964	-	162	495
Stage 1	-	0	-	-	542	-
Stage 2	-	0	-	-	459	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	962	-	149	494
Mov Cap-2 Maneuver	-	-	-	-	283	-
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	423	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	15.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	283	494	-	962	-
HCM Lane V/C Ratio	0.114	0.196	-	0.078	-
HCM Control Delay (s)	19.4	14.1	-	9.1	-
HCM Lane LOS	C	B	-	A	-
HCM 95th %tile Q(veh)	0.4	0.7	-	0.3	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	630	20	60	590	45	25
Future Vol, veh/h	630	20	60	590	45	25
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	325	-	175	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	677	22	65	634	48	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	701	0	1443	679
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	764	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	887	-	144	448
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	456	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	885	-	133	447
Mov Cap-2 Maneuver	-	-	-	-	133	-
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	423	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	34.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	133	447	-	-	885	-
HCM Lane V/C Ratio	0.364	0.06	-	-	0.073	-
HCM Control Delay (s)	46.8	13.6	-	-	9.4	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	1.5	0.2	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	670	5	60	640	0	5	0	60	0	0	5
Future Volume (veh/h)	5	670	5	60	640	0	5	0	60	0	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	0	1841	1841	1841	1841
Adj Flow Rate, veh/h	5	720	5	65	688	0	5	0	61	0	0	4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	0	4	4	4	4
Cap, veh/h	14	929	6	145	1074	0	16	0	0	0	0	10
Arrive On Green	0.01	0.51	0.51	0.08	0.58	0.00	0.01	0.00	0.00	0.00	0.00	0.01
Sat Flow, veh/h	1753	1826	13	1753	1841	0	1753	5		0	0	1560
Grp Volume(v), veh/h	5	0	725	65	688	0	5	28.7		0	0	4
Grp Sat Flow(s),veh/h/ln	1753	0	1838	1753	1841	0	1753	C		0	0	1560
Q Serve(g_s), s	0.1	0.0	16.2	1.8	12.6	0.0	0.1			0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.1	0.0	16.2	1.8	12.6	0.0	0.1			0.0	0.0	0.1
Prop In Lane	1.00		0.01	1.00		0.00	1.00			0.00		1.00
Lane Grp Cap(c), veh/h	14	0	935	145	1074	0	16			0	0	10
V/C Ratio(X)	0.35	0.00	0.78	0.45	0.64	0.00	0.30			0.00	0.00	0.40
Avail Cap(c_a), veh/h	726	0	1740	1279	1743	0	1279			0	0	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	1.00
Uniform Delay (d), s/veh	25.0	0.0	10.1	22.1	7.0	0.0	24.9			0.0	0.0	25.1
Incr Delay (d2), s/veh	5.5	0.0	2.0	3.1	0.9	0.0	3.8			0.0	0.0	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	4.5	0.8	2.8	0.0	0.1			0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	0.0	12.1	25.2	7.9	0.0	28.7			0.0	0.0	34.1
LnGrp LOS	C	A	B	C	A	A	C			A	A	C
Approach Vol, veh/h		730			753						4	
Approach Delay, s/veh		12.2			9.4						34.1	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2	3	4	5	6
Phs Duration (G+Y+Rc), s	8.9	31.6	5.2	5.0	5.1	35.4
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	* 4.7	* 4.7	5.8
Max Green Setting (Gmax), s	* 37	48.0	* 37	* 21	* 21	48.0
Max Q Clear Time (g_c+I1), s	3.8	18.2	2.1	2.1	2.1	14.6
Green Ext Time (p_c), s	0.2	7.6	0.0	0.0	0.0	7.2

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	600	0	0	630	100	0	0	0	130	0	70
Future Volume (veh/h)	90	600	0	0	630	100	0	0	0	130	0	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841	1841	0	1841
Adj Flow Rate, veh/h	97	645	0	0	677	107	0	0	0	140	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4	4	0	4
Cap, veh/h	167	1215	0	0	1103	174	0	4	0	197	0	0
Arrive On Green	0.10	0.66	0.00	0.00	0.45	0.45	0.00	0.00	0.00	0.11	0.00	0.00
Sat Flow, veh/h	1753	1841	0	0	3227	385	0	-84673	0	1753	140	
Grp Volume(v), veh/h	97	645	0	0	291	493	0	0	0	140	20.4	
Grp Sat Flow(s),veh/h/ln	1753	1841	0	0	1049	1771	0	1841	0	1753	C	
Q Serve(g_s), s	2.3	8.0	0.0	0.0	9.2	9.2	0.0	0.0	0.0	3.4		
Cycle Q Clear(g_c), s	2.3	8.0	0.0	0.0	9.2	9.2	0.0	0.0	0.0	3.4		
Prop In Lane	1.00		0.00	0.00		0.22	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	167	1215	0	0	475	802	0	4	0	197		
V/C Ratio(X)	0.58	0.53	0.00	0.00	0.61	0.61	0.00	0.00	0.00	0.71		
Avail Cap(c_a), veh/h	1046	2366	0	0	1349	2277	0	2451	0	1046		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	18.9	3.9	0.0	0.0	9.0	9.0	0.0	0.0	0.0	18.6		
Incr Delay (d2), s/veh	1.2	0.8	0.0	0.0	2.7	1.6	0.0	0.0	0.0	1.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.8	0.8	0.0	0.0	1.6	2.4	0.0	0.0	0.0	1.3		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	4.6	0.0	0.0	11.8	10.7	0.0	0.0	0.0	20.4		
LnGrp LOS	C	A	A	A	B	B	A	A	A	C		
Approach Vol, veh/h		742			784			0				
Approach Delay, s/veh		6.7			11.1			0.0				
Approach LOS		A			B							

Timer - Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		34.1			9.0	25.0	9.5	0.0				
Change Period (Y+Rc), s		5.3			4.9	5.3	4.6	4.6				
Max Green Setting (Gmax), s		56.0			26.0	56.0	26.0	58.0				
Max Q Clear Time (g_c+I1), s		10.0			4.3	11.2	5.4	0.0				
Green Ext Time (p_c), s		7.5			0.1	8.5	0.2	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	495	235	10	660	40	0	0	0	5	0	70
Future Vol, veh/h	0	495	235	10	660	40	0	0	0	5	0	70
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	532	253	11	710	43	0	0	0	5	0	75

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	787	0	0	1391	1519	710
Stage 1	-	-	-	-	-	-	732	732	-
Stage 2	-	-	-	-	-	-	659	787	-
Critical Hdwy	-	-	-	4.14	-	-	6.44	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	5.44	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.44	5.54	-
Follow-up Hdwy	-	-	-	2.236	-	-	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	823	-	0	155	118	430
Stage 1	0	-	-	-	-	0	472	424	-
Stage 2	0	-	-	-	-	0	511	400	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	823	-	-	152	0	430
Mov Cap-2 Maneuver	-	-	-	-	-	-	152	0	-
Stage 1	-	-	-	-	-	-	472	0	-
Stage 2	-	-	-	-	-	-	500	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	823	-	152	430
HCM Lane V/C Ratio	-	-	0.013	-	0.035	0.175
HCM Control Delay (s)	-	-	9.4	-	29.6	15.1
HCM Lane LOS	-	-	A	-	D	C
HCM 95th %tile Q(veh)	-	-	0	-	0.1	0.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	390	110	0	350	10	360	5	50	0	0	0
Future Volume (veh/h)	0	390	110	0	350	10	360	5	50	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	0	419	0	0	376	10	387	5	17			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	4	4	0	4	4	4	4	4			
Cap, veh/h	0	624		0	624	529	509	7	459			
Arrive On Green	0.00	0.34	0.00	0.00	0.34	0.34	0.29	0.29	0.29			
Sat Flow, veh/h	0	1841	0	0	1841	1560	1732	22	1560			
Grp Volume(v), veh/h	0	419	0	0	376	10	392	0	17			
Grp Sat Flow(s),veh/h/ln	0	1841	0	0	1841	1560	1754	0	1560			
Q Serve(g_s), s	0.0	5.0	0.0	0.0	4.4	0.1	5.3	0.0	0.2			
Cycle Q Clear(g_c), s	0.0	5.0	0.0	0.0	4.4	0.1	5.3	0.0	0.2			
Prop In Lane	0.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	0	624		0	624	529	516	0	459			
V/C Ratio(X)	0.00	0.67		0.00	0.60	0.02	0.76	0.00	0.04			
Avail Cap(c_a), veh/h	0	3268		0	3268	2770	2438	0	2168			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	7.3	0.0	0.0	7.1	5.7	8.3	0.0	6.5			
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.0	0.9	0.0	0.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.9	0.0	0.0	0.7	0.0	0.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.6	0.0	0.0	8.0	5.7	9.2	0.0	6.5			
LnGrp LOS	A	A		A	A	A	A	A	A			
Approach Vol, veh/h		419			386			409				
Approach Delay, s/veh		8.6			8.0			9.1				
Approach LOS		A			A			A				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		14.1				14.1		11.8				
Change Period (Y+Rc), s		5.3				5.3		4.2				
Max Green Setting (Gmax), s		46.0				46.0		36.0				
Max Q Clear Time (g_c+I1), s		7.0				6.4		7.3				
Green Ext Time (p_c), s		1.6				1.5		0.8				
Intersection Summary												
HCM 6th Ctrl Delay			8.6									
HCM 6th LOS			A									

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	320	30	85	300	190	40	120	75	255	140	50
Future Volume (veh/h)	60	320	30	85	300	190	40	120	75	255	140	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	68	364	34	97	341	93	45	136	85	290	159	57
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	94	454	42	124	538	755	325	175	109	339	222	79
Arrive On Green	0.06	0.28	0.28	0.07	0.30	0.30	0.19	0.17	0.17	0.20	0.18	0.18
Sat Flow, veh/h	1697	1598	149	1697	1781	1502	1697	1025	641	1697	1239	444
Grp Volume(v), veh/h	68	0	398	97	341	93	45	0	221	290	0	216
Grp Sat Flow(s),veh/h/ln	1697	0	1748	1697	1781	1502	1697	0	1666	1697	0	1683
Q Serve(g_s), s	2.5	0.0	13.3	3.6	10.4	2.1	1.4	0.0	8.0	10.4	0.0	7.6
Cycle Q Clear(g_c), s	2.5	0.0	13.3	3.6	10.4	2.1	1.4	0.0	8.0	10.4	0.0	7.6
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.38	1.00		0.26
Lane Grp Cap(c), veh/h	94	0	496	124	538	755	325	0	284	339	0	301
V/C Ratio(X)	0.73	0.00	0.80	0.78	0.63	0.12	0.14	0.00	0.78	0.86	0.00	0.72
Avail Cap(c_a), veh/h	537	0	913	537	931	1087	537	0	712	537	0	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.4	0.0	21.0	28.8	19.0	8.4	21.2	0.0	25.0	24.4	0.0	24.4
Incr Delay (d2), s/veh	4.0	0.0	3.1	4.0	1.2	0.1	0.1	0.0	3.4	4.5	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	0.0	9.2	2.7	7.4	1.1	1.0	0.0	5.9	7.7	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	24.0	32.8	20.3	8.4	21.3	0.0	28.5	28.9	0.0	26.8
LnGrp LOS	C	A	C	C	C	A	C	A	C	C	A	C
Approach Vol, veh/h		466			531			266			506	
Approach Delay, s/veh		25.4			20.5			27.2			28.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	22.5	16.3	15.5	7.7	23.7	16.8	15.0
Change Period (Y+Rc), s	* 4.2	4.6	* 4.2	* 4.2	* 4.2	4.6	* 4.2	* 4.2
Max Green Setting (Gmax), s	* 20	33.0	* 20	* 27	* 20	33.0	* 20	* 27
Max Q Clear Time (g_c+I1), s	5.6	15.3	3.4	9.6	4.5	12.4	12.4	10.0
Green Ext Time (p_c), s	0.1	2.3	0.0	0.9	0.1	2.3	0.3	1.0

Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	620	555	30	30	30
Future Vol, veh/h	20	620	555	30	30	30
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	23	705	631	34	34	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	668	0	-	0	1402	651
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	751	-
Critical Hdwy	4.18	-	-	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.272	-	-	-	3.572	3.372
Pot Cap-1 Maneuver	894	-	-	-	150	458
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	456	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	891	-	-	-	145	457
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	455	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	891	-	-	-	282	457
HCM Lane V/C Ratio	0.026	-	-	-	0.121	0.075
HCM Control Delay (s)	9.1	-	-	-	19.5	13.5
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	0.2

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	738	613	40	97
Demand Flow Rate, veh/h	798	662	43	104
Vehicles Circulating, veh/h	43	80	786	669
Vehicles Exiting, veh/h	730	749	55	73
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.4	8.9	7.1	7.3
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	798	662	43	104
Cap Entry Lane, veh/h	1321	1272	619	697
Entry HV Adj Factor	0.925	0.926	0.920	0.928
Flow Entry, veh/h	738	613	40	97
Cap Entry, veh/h	1222	1178	569	648
V/C Ratio	0.604	0.521	0.069	0.149
Control Delay, s/veh	10.4	8.9	7.1	7.3
LOS	B	A	A	A
95th %tile Queue, veh	4	3	0	1

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	580	20	45	575	20	65
Future Vol, veh/h	580	20	45	575	20	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	195	180	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	659	23	51	653	23	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	659	0	1414	659
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	755	-
Critical Hdwy	-	-	4.18	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.272	-	3.572	3.372
Pot Cap-1 Maneuver	-	0	901	-	147	453
Stage 1	-	0	-	-	504	-
Stage 2	-	0	-	-	454	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	901	-	139	453
Mov Cap-2 Maneuver	-	-	-	-	274	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	428	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	15.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	274	453	-	901	-
HCM Lane V/C Ratio	0.083	0.163	-	0.057	-
HCM Control Delay (s)	19.3	14.5	-	9.2	-
HCM Lane LOS	C	B	-	A	-
HCM 95th %tile Q(veh)	0.3	0.6	-	0.2	-

Intersection	
Int Delay, s/veh	12.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	595	10	30	545	10	40	10	45	110	10	20
Future Vol, veh/h	20	595	10	30	545	10	40	10	45	110	10	20
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	125	125	-	-	175	-	-	180	-	180
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	23	676	11	34	619	11	45	11	51	125	11	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	630	0	0	688	0	0	1112	1427	345	1083	1427	315
Stage 1	-	-	-	-	-	-	729	729	-	693	693	-
Stage 2	-	-	-	-	-	-	383	698	-	390	734	-
Critical Hdwy	4.26	-	-	4.26	-	-	7.66	6.66	7.06	7.66	6.66	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	6.66	5.66	-	6.66	5.66	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.66	5.66	-	6.66	5.66	-
Follow-up Hdwy	2.28	-	-	2.28	-	-	3.58	4.08	3.38	3.58	4.08	3.38
Pot Cap-1 Maneuver	909	-	-	863	-	-	156	127	634	164	127	663
Stage 1	-	-	-	-	-	-	367	412	-	386	428	-
Stage 2	-	-	-	-	-	-	595	426	-	590	410	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	909	-	-	862	-	-	133	119	633	133	119	663
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	119	-	133	119	-
Stage 1	-	-	-	-	-	-	357	401	-	376	411	-
Stage 2	-	-	-	-	-	-	537	409	-	514	399	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.5	29.2	103.6
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	133	355	909	-	-	862	-	-	133	119	663
HCM Lane V/C Ratio	0.342	0.176	0.025	-	-	0.04	-	-	0.94	0.095	0.034
HCM Control Delay (s)	45.5	17.3	9.1	-	-	9.3	-	-	126.4	38.4	10.6
HCM Lane LOS	E	C	A	-	-	A	-	-	F	E	B
HCM 95th %tile Q(veh)	1.4	0.6	0.1	-	-	0.1	-	-	6.4	0.3	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	740	5	30	570	0	5	0	40	0	0	5
Future Volume (veh/h)	5	740	5	30	570	0	5	0	40	0	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	0	1781	1781	1781	1781
Adj Flow Rate, veh/h	6	841	6	34	648	0	6	0	45	0	0	6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	8	8	8	8	8	0	8	8	8	8
Cap, veh/h	16	1551	11	93	882	0	19	0	0	0	0	15
Arrive On Green	0.01	0.45	0.45	0.05	0.50	0.00	0.01	0.00	0.00	0.00	0.00	0.01
Sat Flow, veh/h	1697	3445	25	1697	1781	0	1697	6		0	0	1510
Grp Volume(v), veh/h	6	413	434	34	648	0	6	24.0		0	0	6
Grp Sat Flow(s),veh/h/ln	1697	1692	1777	1697	1781	0	1697	C		0	0	1510
Q Serve(g_s), s	0.1	7.5	7.5	0.8	12.1	0.0	0.1			0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.1	7.5	7.5	0.8	12.1	0.0	0.1			0.0	0.0	0.2
Prop In Lane	1.00		0.01	1.00		0.00	1.00			0.00		1.00
Lane Grp Cap(c), veh/h	16	762	800	93	882	0	19			0	0	15
V/C Ratio(X)	0.37	0.54	0.54	0.37	0.73	0.00	0.31			0.00	0.00	0.41
Avail Cap(c_a), veh/h	849	1936	2032	1496	2037	0	1496			0	0	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	8.4	8.4	19.1	8.4	0.0	20.6			0.0	0.0	20.7
Incr Delay (d2), s/veh	5.0	0.9	0.8	3.4	1.7	0.0	3.4			0.0	0.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	3.1	3.3	0.6	5.0	0.0	0.1			0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	9.2	9.2	22.6	10.1	0.0	24.0			0.0	0.0	27.4
LnGrp LOS	C	A	A	C	B	A	C			A	A	C
Approach Vol, veh/h		853			682						6	
Approach Delay, s/veh		9.3			10.7						27.4	
Approach LOS		A			B						C	

Timer - Assigned Phs	1	2	3	4	5	6
Phs Duration (G+Y+Rc), s	7.0	24.7	5.2	5.1	5.1	26.6
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	* 4.7	* 4.7	5.8
Max Green Setting (Gmax), s	* 37	48.0	* 37	* 21	* 21	48.0
Max Q Clear Time (g_c+I1), s	2.8	9.5	2.1	2.2	2.1	14.1
Green Ext Time (p_c), s	0.1	8.4	0.0	0.0	0.0	6.7

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	620	0	0	525	70	0	0	0	130	0	65
Future Volume (veh/h)	55	620	0	0	525	70	0	0	0	130	0	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	0	0	1781	1781	1781	1781	1781	1781	0	1781
Adj Flow Rate, veh/h	62	705	0	0	597	80	0	0	0	148	0	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	0	0	8	8	8	8	8	8	0	8
Cap, veh/h	128	1110	0	0	1020	136	0	5	0	209	0	0
Arrive On Green	0.08	0.62	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.12	0.00	0.00
Sat Flow, veh/h	1697	1781	0	0	3181	323	0	-81946	0	1697	148	
Grp Volume(v), veh/h	62	705	0	0	251	426	0	0	0	148	18.1	
Grp Sat Flow(s),veh/h/ln	1697	1781	0	0	1015	1723	0	1781	0	1697	B	
Q Serve(g_s), s	1.4	9.6	0.0	0.0	7.4	7.4	0.0	0.0	0.0	3.3		
Cycle Q Clear(g_c), s	1.4	9.6	0.0	0.0	7.4	7.4	0.0	0.0	0.0	3.3		
Prop In Lane	1.00		0.00	0.00		0.19	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	128	1110	0	0	429	728	0	5	0	209		
V/C Ratio(X)	0.49	0.64	0.00	0.00	0.58	0.59	0.00	0.00	0.00	0.71		
Avail Cap(c_a), veh/h	1131	2559	0	0	1459	2475	0	2650	0	1131		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	17.3	4.6	0.0	0.0	8.6	8.6	0.0	0.0	0.0	16.4		
Incr Delay (d2), s/veh	1.1	1.3	0.0	0.0	2.7	1.6	0.0	0.0	0.0	1.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	0.8	1.8	0.0	0.0	2.2	3.4	0.0	0.0	0.0	2.0		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	5.9	0.0	0.0	11.3	10.3	0.0	0.0	0.0	18.1		
LnGrp LOS	B	A	A	A	B	B	A	A	A	B		
Approach Vol, veh/h		767			677			0				
Approach Delay, s/veh		6.9			10.7			0.0				
Approach LOS		A			B							
Timer - Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		29.6			7.8	21.8	9.4	0.0				
Change Period (Y+Rc), s		5.3			4.9	5.3	4.6	4.6				
Max Green Setting (Gmax), s		56.0			26.0	56.0	26.0	58.0				
Max Q Clear Time (g_c+I1), s		11.6			3.4	9.4	5.3	0.0				
Green Ext Time (p_c), s		8.6			0.1	7.1	0.3	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			9.5									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	430	320	0	505	30	0	0	0	10	0	90
Future Vol, veh/h	0	430	320	0	505	30	0	0	0	10	0	90
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	0	489	364	0	574	34	0	0	0	11	0	102

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	-	-	0	1245	1428	574
Stage 1	-	-	-	-	-	-	574	574	-
Stage 2	-	-	-	-	-	-	671	854	-
Critical Hdwy	-	-	-	-	-	-	6.48	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	5.48	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.48	5.58	-
Follow-up Hdwy	-	-	-	-	-	-	3.572	4.072	3.372
Pot Cap-1 Maneuver	0	-	-	0	-	0	187	131	507
Stage 1	0	-	-	0	-	0	552	494	-
Stage 2	0	-	-	0	-	0	497	367	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	-	-	-	187	0	507
Mov Cap-2 Maneuver	-	-	-	-	-	-	187	0	-
Stage 1	-	-	-	-	-	-	552	0	-
Stage 2	-	-	-	-	-	-	497	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	187	507
HCM Lane V/C Ratio	-	-	-	0.061	0.202
HCM Control Delay (s)	-	-	-	25.5	13.9
HCM Lane LOS	-	-	-	D	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	385	55	0	340	10	195	0	30	0	0	0
Future Volume (veh/h)	0	385	55	0	340	10	195	0	30	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1781	1781	0	1781	1781	1781	1781	1781			
Adj Flow Rate, veh/h	0	438	0	0	386	4	222	0	7			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	8	8	0	8	8	8	8	8			
Cap, veh/h	0	662		0	662	561	345	0	307			
Arrive On Green	0.00	0.37	0.00	0.00	0.37	0.37	0.20	0.00	0.20			
Sat Flow, veh/h	0	1781	0	0	1781	1510	1697	0	1510			
Grp Volume(v), veh/h	0	438	0	0	386	4	222	0	7			
Grp Sat Flow(s),veh/h/ln	0	1781	0	0	1781	1510	1697	0	1510			
Q Serve(g_s), s	0.0	4.6	0.0	0.0	3.9	0.0	2.7	0.0	0.1			
Cycle Q Clear(g_c), s	0.0	4.6	0.0	0.0	3.9	0.0	2.7	0.0	0.1			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	662		0	662	561	345	0	307			
V/C Ratio(X)	0.00	0.66		0.00	0.58	0.01	0.64	0.00	0.02			
Avail Cap(c_a), veh/h	0	3662		0	3662	3104	2730	0	2429			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.9	0.0	0.0	5.6	4.4	8.2	0.0	7.1			
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.8	0.0	0.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.0	0.7	0.0	0.0	0.6	0.0	0.6	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.0	0.0	0.0	6.5	4.4	8.9	0.0	7.1			
LnGrp LOS	A	A		A	A	A	A	A	A			
Approach Vol, veh/h		438			390			229				
Approach Delay, s/veh		7.0			6.4			8.9				
Approach LOS		A			A			A				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		13.6				13.6		8.8				
Change Period (Y+Rc), s		5.3				5.3		4.2				
Max Green Setting (Gmax), s		46.0				46.0		36.0				
Max Q Clear Time (g_c+I1), s		6.6				5.9		4.7				
Green Ext Time (p_c), s		1.7				1.5		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	625	600	5	0	20
Future Vol, veh/h	20	625	600	5	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	23	710	682	6	0	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	688	0	-	0	-	344
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.22	-	-	-	-	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.276	-	-	-	-	3.376
Pot Cap-1 Maneuver	871	-	-	-	0	638
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	871	-	-	-	-	638
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	871	-	-	-	638
HCM Lane V/C Ratio	0.026	-	-	-	0.036
HCM Control Delay (s)	9.2	-	-	-	10.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	625	575	30	0	30
Future Vol, veh/h	0	625	575	30	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	0	710	653	34	0	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	344
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.376
Pot Cap-1 Maneuver	0	-	-	-	0	638
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	638
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	638
HCM Lane V/C Ratio	-	-	-	0.053
HCM Control Delay (s)	-	-	-	11
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	735	15	0	575	5	0	0	15	0	0	10
Future Vol, veh/h	0	735	15	0	575	5	0	0	15	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	180	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	0	835	17	0	653	6	0	0	17	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	426	-	-	327
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.06	-	-	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.38	-	-	3.38
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	560	0	0	651
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	560	-	-	651
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.6	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	560	-	-	-	-	651
HCM Lane V/C Ratio	0.03	-	-	-	-	0.017
HCM Control Delay (s)	11.6	-	-	-	-	10.6
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	50	10	5	0	10	25	5	0	80	10
Future Vol, veh/h	5	0	50	10	5	0	10	25	5	0	80	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	6	0	57	11	6	0	11	28	6	0	91	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	153	153	97	175	152	28	102	0	0	34	0	0
Stage 1	97	97	-	50	50	-	-	-	-	-	-	-
Stage 2	56	56	-	125	102	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	801	728	943	774	729	1030	1453	-	-	1540	-	-
Stage 1	895	803	-	948	842	-	-	-	-	-	-	-
Stage 2	941	837	-	865	799	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	791	722	943	723	723	1030	1453	-	-	1540	-	-
Mov Cap-2 Maneuver	791	722	-	723	723	-	-	-	-	-	-	-
Stage 1	888	803	-	940	835	-	-	-	-	-	-	-
Stage 2	927	830	-	813	799	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	10.1	1.9	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1453	-	-	927	723	1540	-	-
HCM Lane V/C Ratio	0.008	-	-	0.067	0.024	-	-	-
HCM Control Delay (s)	7.5	0	-	9.2	10.1	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	395	50	80	355	205	80	120	95	150	130	50
Future Volume (veh/h)	40	395	50	80	355	205	80	120	95	150	130	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	425	51	86	382	112	86	129	70	161	140	38
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	78	536	64	119	656	737	210	175	95	207	213	58
Arrive On Green	0.04	0.33	0.33	0.07	0.36	0.36	0.12	0.16	0.16	0.12	0.15	0.15
Sat Flow, veh/h	1753	1612	193	1753	1841	1551	1753	1122	609	1753	1383	375
Grp Volume(v), veh/h	43	0	476	86	382	112	86	0	199	161	0	178
Grp Sat Flow(s),veh/h/ln	1753	0	1806	1753	1841	1551	1753	0	1731	1753	0	1758
Q Serve(g_s), s	1.3	0.0	12.6	2.5	8.9	2.2	2.4	0.0	5.8	4.7	0.0	5.0
Cycle Q Clear(g_c), s	1.3	0.0	12.6	2.5	8.9	2.2	2.4	0.0	5.8	4.7	0.0	5.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.35	1.00		0.21
Lane Grp Cap(c), veh/h	78	0	601	119	656	737	210	0	270	207	0	271
V/C Ratio(X)	0.55	0.00	0.79	0.72	0.58	0.15	0.41	0.00	0.74	0.78	0.00	0.66
Avail Cap(c_a), veh/h	664	0	1128	664	1150	1153	664	0	885	664	0	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	0.0	16.0	24.1	13.8	7.9	21.5	0.0	21.3	22.6	0.0	21.0
Incr Delay (d2), s/veh	2.3	0.0	2.4	3.1	0.8	0.1	0.5	0.0	2.9	2.4	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	4.9	1.1	3.3	0.6	1.0	0.0	2.4	1.9	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	18.4	27.2	14.6	8.0	22.0	0.0	24.2	25.0	0.0	23.1
LnGrp LOS	C	A	B	C	B	A	C	A	C	C	A	C
Approach Vol, veh/h		519			580			285			339	
Approach Delay, s/veh		19.1			15.2			23.5			24.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	22.2	10.5	12.3	6.5	23.4	10.4	12.4
Change Period (Y+Rc), s	* 4.2	4.6	* 4.2	* 4.2	* 4.2	4.6	* 4.2	* 4.2
Max Green Setting (Gmax), s	* 20	33.0	* 20	* 27	* 20	33.0	* 20	* 27
Max Q Clear Time (g_c+I1), s	4.5	14.6	4.4	7.0	3.3	10.9	6.7	7.8
Green Ext Time (p_c), s	0.1	2.9	0.0	0.8	0.0	2.7	0.2	0.9

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	630	620	40	30	20
Future Vol, veh/h	10	630	620	40	30	20
Conflicting Peds, #/hr	2	0	0	2	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	11	677	667	43	32	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	712	0	-	0	1392	691
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	701	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	878	-	-	-	155	441
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	488	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	876	-	-	-	152	440
Mov Cap-2 Maneuver	-	-	-	-	292	-
Stage 1	-	-	-	-	487	-
Stage 2	-	-	-	-	487	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	876	-	-	-	292	440
HCM Lane V/C Ratio	0.012	-	-	-	0.11	0.049
HCM Control Delay (s)	9.2	-	-	-	18.9	13.6
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0.2

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	711	672	64	102
Demand Flow Rate, veh/h	740	699	66	106
Vehicles Circulating, veh/h	66	106	750	699
Vehicles Exiting, veh/h	739	710	56	106
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.6	9.7	7.0	7.4
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	740	699	66	106
Cap Entry Lane, veh/h	1290	1238	642	676
Entry HV Adj Factor	0.961	0.962	0.967	0.960
Flow Entry, veh/h	711	672	64	102
Cap Entry, veh/h	1240	1191	621	650
V/C Ratio	0.574	0.564	0.103	0.157
Control Delay, s/veh	9.6	9.7	7.0	7.4
LOS	A	A	A	A
95th %tile Queue, veh	4	4	0	1

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	600	40	75	595	30	95
Future Vol, veh/h	600	40	75	595	30	95
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	195	180	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	645	43	81	640	32	102

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	647	0	1449	647
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	802	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	0	929	-	143	467
Stage 1	-	0	-	-	517	-
Stage 2	-	0	-	-	438	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	927	-	130	466
Mov Cap-2 Maneuver	-	-	-	-	264	-
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	400	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	264	466	-	927	-
HCM Lane V/C Ratio	0.122	0.219	-	0.087	-
HCM Control Delay (s)	20.5	14.9	-	9.3	-
HCM Lane LOS	C	B	-	A	-
HCM 95th %tile Q(veh)	0.4	0.8	-	0.3	-

Intersection	
Int Delay, s/veh	15.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	590	20	60	600	70	55	20	25	95	15	15
Future Vol, veh/h	35	590	20	60	600	70	55	20	25	95	15	15
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	125	125	-	-	175	-	-	180	-	180
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	38	634	22	65	645	75	59	22	27	102	16	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	720	0	0	658	0	0	1184	1573	330	1217	1547	360
Stage 1	-	-	-	-	-	-	723	723	-	813	813	-
Stage 2	-	-	-	-	-	-	461	850	-	404	734	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.58	6.58	6.98	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Follow-up Hdwy	2.24	-	-	2.24	-	-	3.54	4.04	3.34	3.54	4.04	3.34
Pot Cap-1 Maneuver	864	-	-	912	-	-	142	107	660	134	111	631
Stage 1	-	-	-	-	-	-	379	424	-	334	385	-
Stage 2	-	-	-	-	-	-	545	370	-	589	419	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	864	-	-	910	-	-	111	95	659	~ 97	98	631
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	95	-	~ 97	98	-
Stage 1	-	-	-	-	-	-	362	404	-	319	358	-
Stage 2	-	-	-	-	-	-	471	344	-	511	400	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.8	52.6	149.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	111	181	864	-	-	910	-	-	97	98	631
HCM Lane V/C Ratio	0.533	0.267	0.044	-	-	0.071	-	-	1.053	0.165	0.026
HCM Control Delay (s)	69.5	32	9.4	-	-	9.3	-	-	187.2	48.8	10.9
HCM Lane LOS	F	D	A	-	-	A	-	-	F	E	B
HCM 95th %tile Q(veh)	2.5	1	0.1	-	-	0.2	-	-	6.5	0.6	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	725	5	60	735	0	5	0	60	0	0	5
Future Volume (veh/h)	5	725	5	60	735	0	5	0	60	0	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	0	1841	1841	1841	1841
Adj Flow Rate, veh/h	5	780	3	65	790	0	5	0	0	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	0	4	4	4	4
Cap, veh/h	14	1816	7	159	1088	0	17	0	0	0	5	0
Arrive On Green	0.01	0.51	0.51	0.09	0.59	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	3573	14	1753	1841	0	1753	5		0	-86514	0
Grp Volume(v), veh/h	5	382	401	65	790	0	5	22.8		0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1838	1753	1841	0	1753	C		0	1841	0
Q Serve(g_s), s	0.1	5.3	5.3	1.4	11.9	0.0	0.1			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	5.3	5.3	1.4	11.9	0.0	0.1			0.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	14	889	934	159	1088	0	17			0	5	0
V/C Ratio(X)	0.35	0.43	0.43	0.41	0.73	0.00	0.30			0.00	0.00	0.00
Avail Cap(c_a), veh/h	948	2162	2273	1671	2276	0	1671			0	996	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	19.2	6.0	6.0	16.7	5.7	0.0	19.1			0.0	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.5	0.4	2.4	1.3	0.0	3.7			0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.0	1.0	0.5	1.6	0.0	0.1			0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	6.5	6.5	19.0	7.0	0.0	22.8			0.0	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	C			A	A	A
Approach Vol, veh/h		788			855						0	
Approach Delay, s/veh		6.6			7.9						0.0	
Approach LOS		A			A							

Timer - Assigned Phs	1	2	3	4	5	6
Phs Duration (G+Y+Rc), s	8.2	25.5	5.1	0.0	5.0	28.7
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	* 4.7	* 4.7	5.8
Max Green Setting (Gmax), s	* 37	48.0	* 37	* 21	* 21	48.0
Max Q Clear Time (g_c+I1), s	3.4	7.3	2.1	0.0	2.1	13.9
Green Ext Time (p_c), s	0.2	7.6	0.0	0.0	0.0	9.0

Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	650	0	0	715	100	0	0	0	130	0	80
Future Volume (veh/h)	95	650	0	0	715	100	0	0	0	130	0	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841	1841	0	1841
Adj Flow Rate, veh/h	102	699	0	0	769	106	0	0	0	140	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4	4	0	4
Cap, veh/h	165	1256	0	0	1203	166	0	4	0	188	0	0
Arrive On Green	0.09	0.68	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.11	0.00	0.00
Sat Flow, veh/h	1753	1841	0	0	3277	343	0	-84673	0	1753	140	
Grp Volume(v), veh/h	102	699	0	0	325	550	0	0	0	140	22.6	
Grp Sat Flow(s),veh/h/ln	1753	1841	0	0	1049	1779	0	1841	0	1753	C	
Q Serve(g_s), s	2.6	9.1	0.0	0.0	10.9	10.9	0.0	0.0	0.0	3.6		
Cycle Q Clear(g_c), s	2.6	9.1	0.0	0.0	10.9	10.9	0.0	0.0	0.0	3.6		
Prop In Lane	1.00		0.00	0.00		0.19	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	165	1256	0	0	508	861	0	4	0	188		
V/C Ratio(X)	0.62	0.56	0.00	0.00	0.64	0.64	0.00	0.00	0.00	0.75		
Avail Cap(c_a), veh/h	970	2193	0	0	1250	2119	0	2271	0	970		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	20.5	3.8	0.0	0.0	9.1	9.1	0.0	0.0	0.0	20.4		
Incr Delay (d2), s/veh	1.4	0.8	0.0	0.0	2.9	1.7	0.0	0.0	0.0	2.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.0	0.9	0.0	0.0	1.9	2.9	0.0	0.0	0.0	1.4		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	4.7	0.0	0.0	11.9	10.8	0.0	0.0	0.0	22.6		
LnGrp LOS	C	A	A	A	B	B	A	A	A	C		
Approach Vol, veh/h		801			875			0				
Approach Delay, s/veh		6.9			11.2			0.0				
Approach LOS		A			B							
Timer - Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		37.4			9.3	28.1	9.6	0.0				
Change Period (Y+Rc), s		5.3			4.9	5.3	4.6	4.6				
Max Green Setting (Gmax), s		56.0			26.0	56.0	26.0	58.0				
Max Q Clear Time (g_c+I1), s		11.1			4.6	12.9	5.6	0.0				
Green Ext Time (p_c), s		8.4			0.2	9.9	0.2	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			10.1									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	520	260	0	735	40	0	0	0	5	0	80
Future Vol, veh/h	0	520	260	0	735	40	0	0	0	5	0	80
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	559	280	0	790	43	0	0	0	5	0	86

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	-	-	0	1489	1631	790
Stage 1	-	-	-	-	-	-	790	790	-
Stage 2	-	-	-	-	-	-	699	841	-
Critical Hdwy	-	-	-	-	-	-	6.44	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	5.44	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.44	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	0	-	0	135	100	387
Stage 1	0	-	-	0	-	0	444	399	-
Stage 2	0	-	-	0	-	0	489	378	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	-	-	-	135	0	387
Mov Cap-2 Maneuver	-	-	-	-	-	-	135	0	-
Stage 1	-	-	-	-	-	-	444	0	-
Stage 2	-	-	-	-	-	-	489	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	135	387
HCM Lane V/C Ratio	-	-	-	0.04	0.222
HCM Control Delay (s)	-	-	-	32.8	16.9
HCM Lane LOS	-	-	-	D	C
HCM 95th %tile Q(veh)	-	-	-	0.1	0.8



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	410	115	0	385	10	390	5	50	0	0	0
Future Volume (veh/h)	0	410	115	0	385	10	390	5	50	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	0	441	0	0	414	5	419	5	23			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	4	4	0	4	4	4	4	4			
Cap, veh/h	0	635		0	635	538	541	6	487			
Arrive On Green	0.00	0.35	0.00	0.00	0.35	0.35	0.31	0.31	0.31			
Sat Flow, veh/h	0	1841	0	0	1841	1560	1733	21	1560			
Grp Volume(v), veh/h	0	441	0	0	414	5	424	0	23			
Grp Sat Flow(s),veh/h/ln	0	1841	0	0	1841	1560	1754	0	1560			
Q Serve(g_s), s	0.0	5.7	0.0	0.0	5.3	0.1	6.1	0.0	0.3			
Cycle Q Clear(g_c), s	0.0	5.7	0.0	0.0	5.3	0.1	6.1	0.0	0.3			
Prop In Lane	0.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	0	635		0	635	538	548	0	487			
V/C Ratio(X)	0.00	0.69		0.00	0.65	0.01	0.77	0.00	0.05			
Avail Cap(c_a), veh/h	0	3054		0	3054	2588	2278	0	2026			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	7.8	0.0	0.0	7.7	6.0	8.6	0.0	6.7			
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	1.1	0.0	0.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.1	0.0	0.0	1.0	0.0	0.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.2	0.0	0.0	8.8	6.0	9.5	0.0	6.7			
LnGrp LOS	A	A		A	A	A	A	A	A			
Approach Vol, veh/h		441			419			447				
Approach Delay, s/veh		9.2			8.8			9.4				
Approach LOS		A			A			A				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		14.9				14.9		12.9				
Change Period (Y+Rc), s		5.3				5.3		4.2				
Max Green Setting (Gmax), s		46.0				46.0		36.0				
Max Q Clear Time (g_c+I1), s		7.7				7.3		8.1				
Green Ext Time (p_c), s		1.7				1.6		0.9				

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	645	645	25	0	25
Future Vol, veh/h	50	645	645	25	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	54	694	694	27	0	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	721	0	-	0	-	361
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.16	-	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.238	-	-	-	-	3.338
Pot Cap-1 Maneuver	868	-	-	-	0	631
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	868	-	-	-	-	631
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	868	-	-	-	631
HCM Lane V/C Ratio	0.062	-	-	-	0.043
HCM Control Delay (s)	9.4	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	645	600	70	0	70
Future Vol, veh/h	0	645	600	70	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	0	694	645	75	0	75

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	360
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.338
Pot Cap-1 Maneuver	0	-	-	-	0	632
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	632
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	632
HCM Lane V/C Ratio	-	-	-	0.119
HCM Control Delay (s)	-	-	-	11.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	705	5	0	725	20	0	0	30	0	0	5
Future Vol, veh/h	0	705	5	0	725	20	0	0	30	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	180	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	758	5	0	780	22	0	0	32	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	382	-	-	390
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.98	-	-	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.34	-	-	3.34
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	610	0	0	603
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	610	-	-	603
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.2	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	610	-	-	-	-	603
HCM Lane V/C Ratio	0.053	-	-	-	-	0.009
HCM Control Delay (s)	11.2	-	-	-	-	11
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	60	5	5	0	25	90	10	0	60	10
Future Vol, veh/h	15	0	60	5	5	0	25	90	10	0	60	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	16	0	65	5	5	0	27	97	11	0	65	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	230	233	71	254	227	97	76	0	0	108	0	0
Stage 1	71	71	-	151	151	-	-	-	-	-	-	-
Stage 2	159	162	-	103	76	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	721	664	986	695	669	954	1510	-	-	1470	-	-
Stage 1	934	832	-	847	769	-	-	-	-	-	-	-
Stage 2	838	760	-	898	828	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	706	651	986	640	656	954	1510	-	-	1470	-	-
Mov Cap-2 Maneuver	706	651	-	640	656	-	-	-	-	-	-	-
Stage 1	916	832	-	831	754	-	-	-	-	-	-	-
Stage 2	816	746	-	839	828	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	10.6	1.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1510	-	-	914	648	1470	-	-
HCM Lane V/C Ratio	0.018	-	-	0.088	0.017	-	-	-
HCM Control Delay (s)	7.4	0	-	9.3	10.6	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0	-	-

Intersection	
Int Delay, s/veh	105

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	580	50	40	605	25	40	20	100	185	25	60
Future Vol, veh/h	50	580	50	40	605	25	40	20	100	185	25	60
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	125	125	-	-	175	-	-	180	-	180
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	57	659	57	45	688	28	45	23	114	210	28	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	716	0	0	717	0	0	1251	1609	359	1247	1623	358
Stage 1	-	-	-	-	-	-	803	803	-	792	792	-
Stage 2	-	-	-	-	-	-	448	806	-	455	831	-
Critical Hdwy	4.26	-	-	4.26	-	-	7.66	6.66	7.06	7.66	6.66	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	6.66	5.66	-	6.66	5.66	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.66	5.66	-	6.66	5.66	-
Follow-up Hdwy	2.28	-	-	2.28	-	-	3.58	4.08	3.38	3.58	4.08	3.38
Pot Cap-1 Maneuver	842	-	-	841	-	-	123	98	621	~ 124	96	621
Stage 1	-	-	-	-	-	-	331	380	-	336	385	-
Stage 2	-	-	-	-	-	-	544	379	-	539	369	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	842	-	-	840	-	-	74	86	620	~ 74	85	621
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	86	-	~ 74	85	-
Stage 1	-	-	-	-	-	-	308	354	-	313	364	-
Stage 2	-	-	-	-	-	-	423	359	-	384	344	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.6	47.4	$ 660.6
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	74	305	842	-	-	840	-	-	74	85	621
HCM Lane V/C Ratio	0.614	0.447	0.067	-	-	0.054	-	-	2.841	0.334	0.11
HCM Control Delay (s)	111.7	26	9.6	-	-	9.5	-	-	$ 951.3	67.3	11.5
HCM Lane LOS	F	D	A	-	-	A	-	-	F	F	B
HCM 95th %tile Q(veh)	2.7	2.2	0.2	-	-	0.2	-	-	20.8	1.3	0.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	560	445	0	720	40	0	0	0	10	0	140
Future Vol, veh/h	0	560	445	0	720	40	0	0	0	10	0	140
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	0	636	506	0	818	45	0	0	0	11	0	159

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	-	-	0	1707	1961	818
Stage 1	-	-	-	-	-	-	818	818	-
Stage 2	-	-	-	-	-	-	889	1143	-
Critical Hdwy	-	-	-	-	-	-	6.48	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	5.48	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.48	5.58	-
Follow-up Hdwy	-	-	-	-	-	-	3.572	4.072	3.372
Pot Cap-1 Maneuver	0	-	-	0	-	0	97	61	367
Stage 1	0	-	-	0	-	0	424	381	-
Stage 2	0	-	-	0	-	0	392	268	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	-	-	-	97	0	367
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	0	-
Stage 1	-	-	-	-	-	-	424	0	-
Stage 2	-	-	-	-	-	-	392	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	23.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	97	367
HCM Lane V/C Ratio	-	-	-	0.117	0.433
HCM Control Delay (s)	-	-	-	47	22.1
HCM Lane LOS	-	-	-	E	C
HCM 95th %tile Q(veh)	-	-	-	0.4	2.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	90	570	30	250	655	70	60	90	160	205	50	30
Future Vol, veh/h	90	570	30	250	655	70	60	90	160	205	50	30
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	125	125	-	-	175	-	-	180	-	180
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	97	613	32	269	704	75	65	97	172	220	54	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	779	0	0	647	0	0	1742	2142	325	1829	2121	390
Stage 1	-	-	-	-	-	-	825	825	-	1280	1280	-
Stage 2	-	-	-	-	-	-	917	1317	-	549	841	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.58	6.58	6.98	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Follow-up Hdwy	2.24	-	-	2.24	-	-	3.54	4.04	3.34	3.54	4.04	3.34
Pot Cap-1 Maneuver	821	-	-	921	-	-	~ 54	~ 47	665	~ 47	~ 48	603
Stage 1	-	-	-	-	-	-	329	380	-	~ 172	231	-
Stage 2	-	-	-	-	-	-	289	222	-	482	374	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	821	-	-	919	-	-	-	~ 29	664	-	~ 30	603
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 29	-	-	~ 30	-
Stage 1	-	-	-	-	-	-	290	334	-	~ 152	163	-
Stage 2	-	-	-	-	-	-	130	157	-	224	329	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	2.7		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	75	821	-	-	919	-	-	-	30	603
HCM Lane V/C Ratio	-	3.584	0.118	-	-	0.293	-	-	-	1.792	0.053
HCM Control Delay (s)	-	$ 1279	10	-	-	10.5	-	-	-	$ 661.7	11.3
HCM Lane LOS	-	F	A	-	-	B	-	-	-	F	B
HCM 95th %tile Q(veh)	-	27.8	0.4	-	-	1.2	-	-	-	6.2	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↑↱						↰↑	↱
Traffic Vol, veh/h	0	745	475	0	1020	40	0	0	0	5	0	150
Future Vol, veh/h	0	745	475	0	1020	40	0	0	0	5	0	150
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	801	511	0	1097	43	0	0	0	5	0	161

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	-	-	0	2154	2411	1097
Stage 1	-	-	-	-	-	-	1097	1097	-
Stage 2	-	-	-	-	-	-	1057	1314	-
Critical Hdwy	-	-	-	-	-	-	6.44	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	5.44	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.44	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	0	-	0	52	32	257
Stage 1	0	-	-	0	-	0	317	287	-
Stage 2	0	-	-	0	-	0	331	226	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	-	-	-	52	0	257
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	0	-
Stage 1	-	-	-	-	-	-	317	0	-
Stage 2	-	-	-	-	-	-	331	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	41.4
HCM LOS			E

Minor Lane/Major Mvmt	EBT	EBR	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	52	257
HCM Lane V/C Ratio	-	-	-	0.103	0.628
HCM Control Delay (s)	-	-	-	82.1	40
HCM Lane LOS	-	-	-	F	E
HCM 95th %tile Q(veh)	-	-	-	0.3	3.8

FEHR PEERS

Project	Skedren Farmstead Transportation S
Scenario	EPAP-NP
Peak Hour	AM
Major Street	Grant Ave
Minor Street	East Main St

Turn Movement Volumes

	NB	SB	EB	WB
Left	35	0	0	30
Through	0	0	620	530
Right	45	0	10	0
Total	80	0	630	560

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	24.7
Approach with Worst Case Delay	NB
Total Vehicles on Approach	80

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
EPAP-NP	**0.5**	**80**	**1,270**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Grant Ave	Project	Skedren Farmstead Transportation S
Minor Street	East Main St	Scenario	EPAP-NP
		Peak Hour	AM

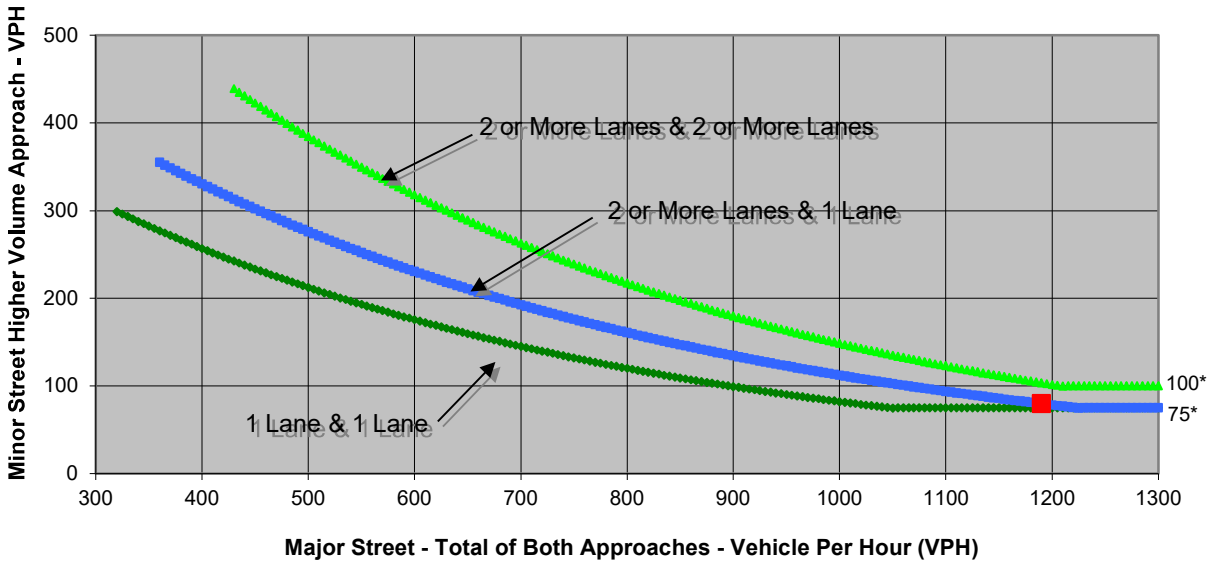
Turn Movement Volumes

	NB	SB	EB	WB
Left	35	0	0	30
Through	0	0	620	530
Right	45	0	10	0
Total	80	0	630	560

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	East Main St	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**1,190**	**80**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Grant Ave	Project	Skedren Farmstead Transportation S
Minor Street	East Main St	Scenario	EPAP-NP
		Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	45	0	0	60
Through	0	0	630	590
Right	25	0	20	0
Total	70	0	650	650

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	34.9
Approach with Worst Case Delay	NB
Total Vehicles on Approach	70

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
EPAP-NP	**0.7**	**70**	**1,370**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Grant Ave	Project	Skedren Farmstead Transportation S
Minor Street	East Main St	Scenario	EPAP-NP
		Peak Hour	PM

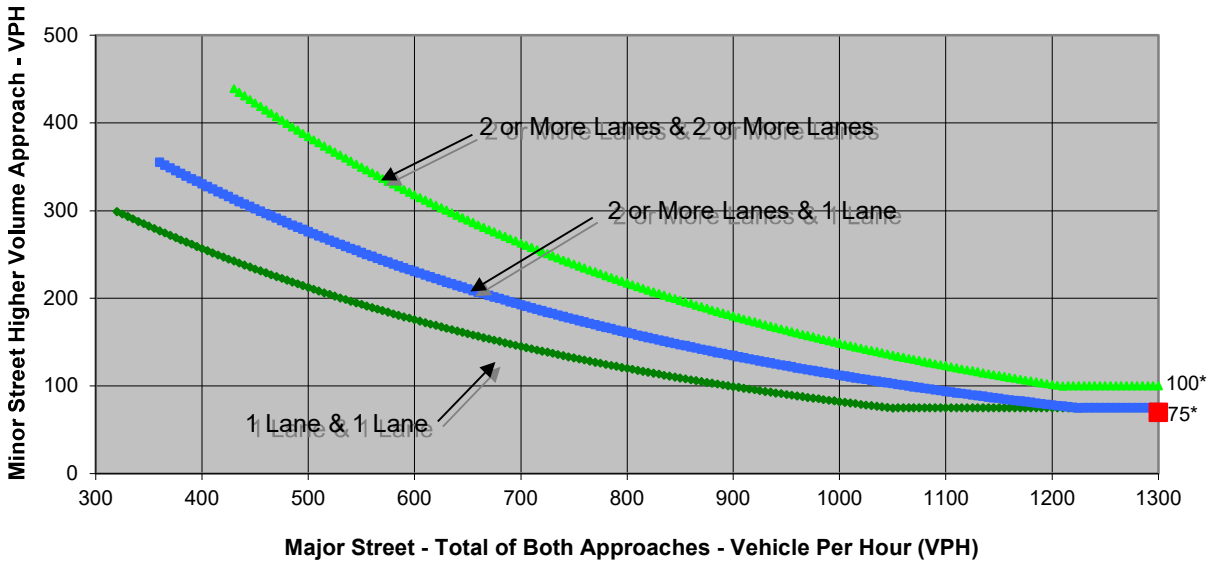
Turn Movement Volumes

	NB	SB	EB	WB
Left	45	0	0	60
Through	0	0	630	590
Right	25	0	20	0
Total	70	0	650	650

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	East Main St	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**1,300**	**70**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Grant Ave	Project	Skedren Farmstead Transportation S
Minor Street	I-505 SB	Scenario	EPAP-NP
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	10	0	0
Through	0	0	390	490
Right	0	90	280	0
Total	0	100	670	490

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	14.5
Approach with Worst Case Delay	SB
Total Vehicles on Approach	100

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
EPAP-NP	**0.4**	**100**	**1,260**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Grant Ave	Project	Skedren Farmstead Transportation S
Minor Street	I-505 SB	Scenario	EPAP-NP
		Peak Hour	AM

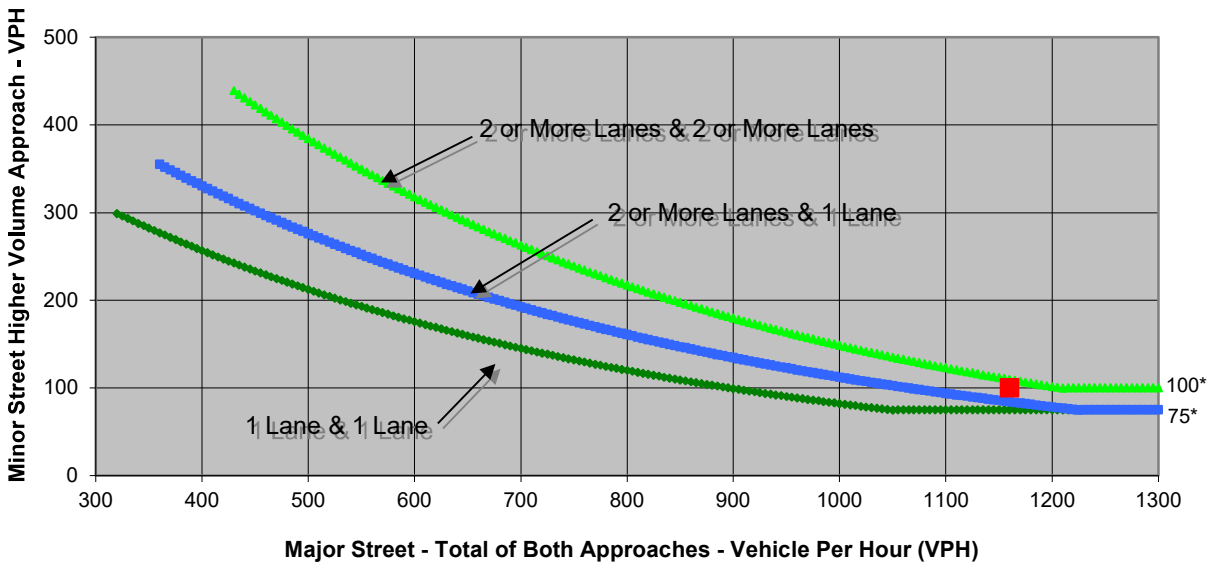
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	10	0	0
Through	0	0	390	490
Right	0	90	280	0
Total	0	100	670	490

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	I-505 SB	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**1,160**	**100**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Grant Ave	Project	Skedren Farmstead Transportation S
Minor Street	I-505 SB	Scenario	EPAP-NP
		Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	5	0	0
Through	0	0	495	660
Right	0	70	235	0
Total	0	75	730	660

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	16.1
Approach with Worst Case Delay	SB
Total Vehicles on Approach	75

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
EPAP-NP	**0.3**	**75**	**1,465**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Grant Ave	Project	Skedren Farmstead Transportation S
Minor Street	I-505 SB	Scenario	EPAP-NP
		Peak Hour	PM

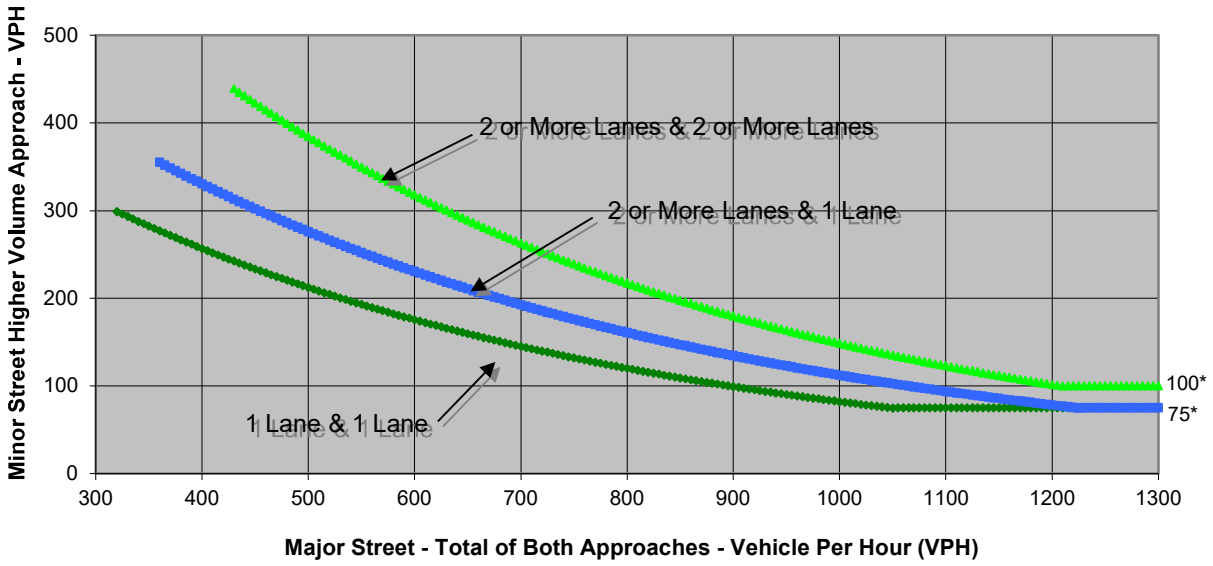
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	5	0	
Through	0	0	495	660
Right	0	70	235	
Total	0	75	730	660

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	I-505 SB	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**1,390**	**75**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Grant Ave	Project	Farmstead Transportation Study
Minor Street	East Main St	Scenario	EPAP-PP
		Peak Hour	AM

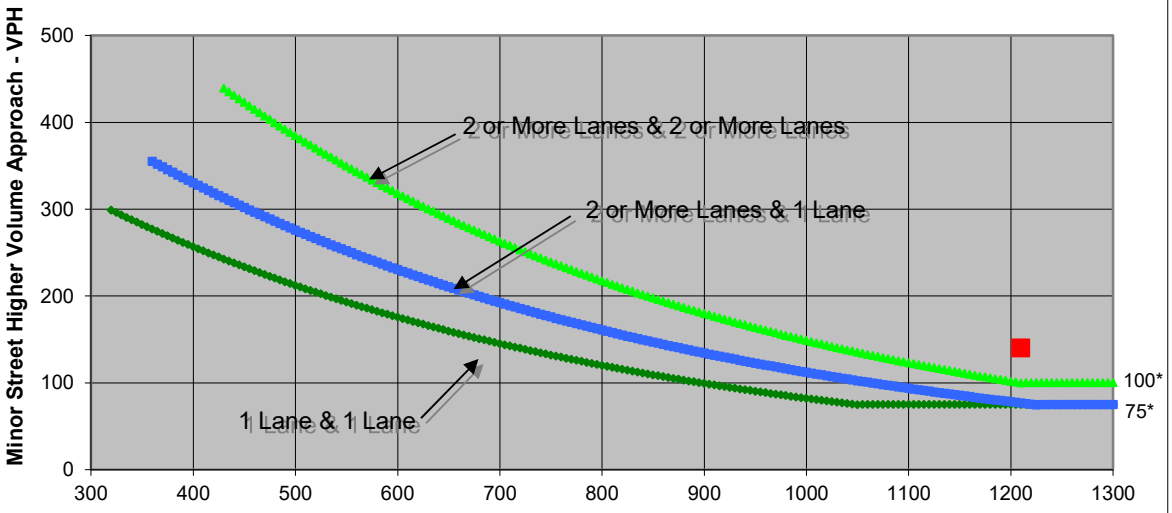
Turn Movement Volumes

	NB	SB	EB	WB
Left	40	110	20	30
Through	10	10	595	545
Right	45	20	10	10
Total	95	140	625	585

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	East Main St	
Number of Approach Lanes	**2**	**2**	**YES**
Traffic Volume (VPH) *	**1,210**	**140**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Grant Ave
Minor Street	East Main St

Project	Farmstead Transportation Study
Scenario	EPAP-PP
Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	40	110	20	30
Through	10	10	595	545
Right	45	20	10	10
Total	95	140	625	585

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	126.4
Approach with Worst Case Delay	SB
Total Vehicles on Approach	140

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
EPAP-PP	**4.9**	**140**	**1,445**
Limiting Value	**5**	**150**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Grant Ave	Project	Farmstead Transportation Study
Minor Street	East Main St	Scenario	EPAP-PP
		Peak Hour	PM

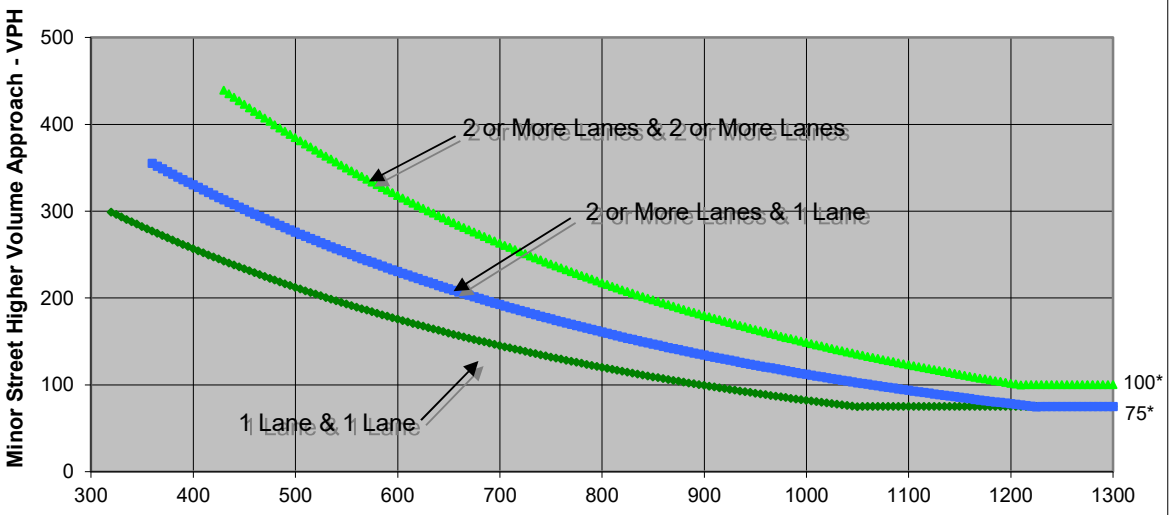
Turn Movement Volumes

	NB	SB	EB	WB
Left	55	95	35	60
Through	20	15	590	600
Right	25	15	20	60
Total	100	125	645	720

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	East Main St	
Number of Approach Lanes	**2**	**2**	**YES**
Traffic Volume (VPH) *	**1,365**	**125**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	Farmstead Transportation Study
Scenario	EPAP-PP
Peak Hour	PM
Major Street	Grant Ave
Minor Street	East Main St

Turn Movement Volumes

	NB	SB	EB	WB
Left	55	95	35	60
Through	20	15	590	600
Right	25	15	20	60
Total	100	125	645	720

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	187
Approach with Worst Case Delay	SB
Total Vehicles on Approach	125

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
EPAP-PP	**6.5**	**125**	**1,590**
Limiting Value	**5**	**150**	**800**
Condition Satisfied?	**Met**	**Not Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Grant Ave
Minor Street	East Main St

Project	Farmstead Transportation Study
Scenario	Cumulative Plus Project
Peak Hour	AM

Turn Movement Volumes

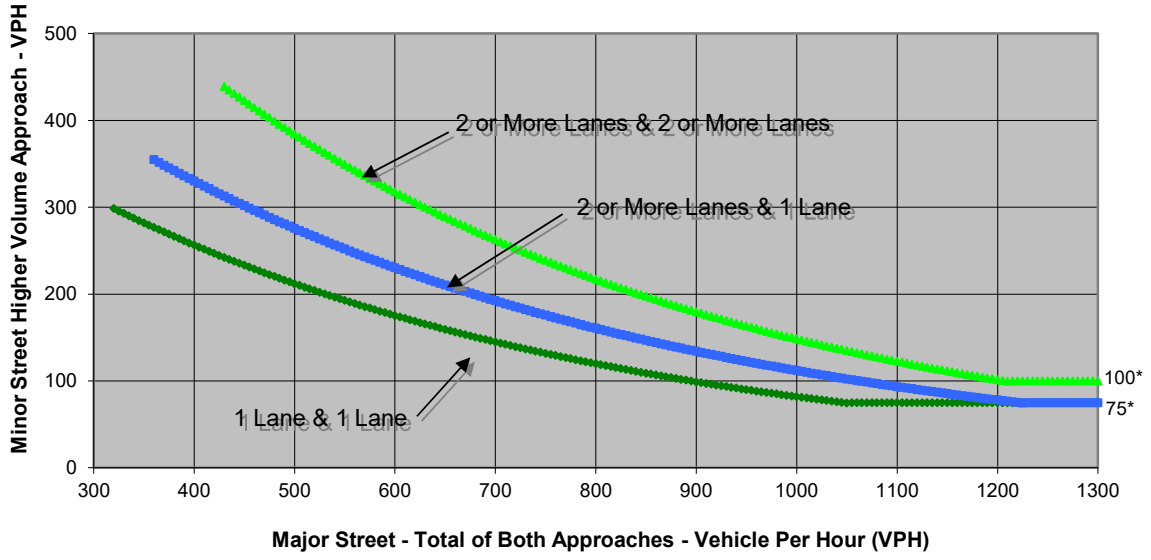
	NB	SB	EB	WB
Left	40	185	50	40
Through	20	25	580	605
Right	100	60	50	25
Total	160	270	680	670

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	East Main St	
Number of Approach Lanes	**2**	**2**	**YES**
Traffic Volume (VPH) *	**1,350**	**270**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Grant Ave	Project	Farmstead Transportation Study
Minor Street	East Main St	Scenario	Cumulative Plus Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	40	185	50	40
Through	20	25	580	605
Right	100	60	50	25
Total	160	270	680	670

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	300
Approach with Worst Case Delay	SB
Total Vehicles on Approach	270

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Cumulative Plus Project	**22.5**	**270**	**1,780**
Limiting Value	**5**	**150**	**800**
Condition Satisfied?	**Met**	**Met**	**Met**
Warrant Met	**YES**		

FEHR PEERS

Major Street	Grant Ave	Project	Farmstead Transportation Study
Minor Street	East Main St	Scenario	Cumulative Plus Project
		Peak Hour	PM

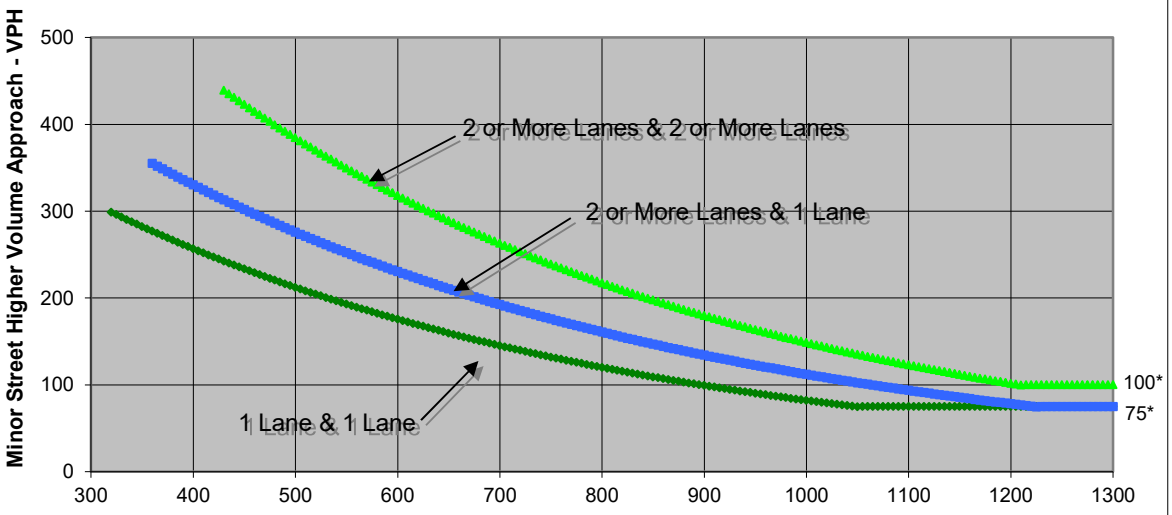
Turn Movement Volumes

	NB	SB	EB	WB
Left	60	205	90	250
Through	90	50	570	655
Right	160	30	30	70
Total	310	285	690	975

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	East Main St	
Number of Approach Lanes	**2**	**2**	**YES**
Traffic Volume (VPH) *	**1,665**	**310**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	Farmstead Transportation Study
Scenario	Cumulative Plus Project
Peak Hour	PM

Major Street	Grant Ave
Minor Street	East Main St

Turn Movement Volumes

	NB	SB	EB	WB
Left	60	205	90	250
Through	90	50	570	655
Right	160	30	30	70
Total	310	285	690	975

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	300
Approach with Worst Case Delay	NB
Total Vehicles on Approach	285

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Cumulative Plus Project	**23.8**	**310**	**2,260**
Limiting Value	**5**	**150**	**800**
Condition Satisfied?	**Met**	**Met**	**Met**
Warrant Met	**YES**		

FEHR PEERS

Major Street	Grant Ave	Project	Farmstead Transportation Study
Minor Street	I-505 SB	Scenario	Cumulative Plus Project
		Peak Hour	AM

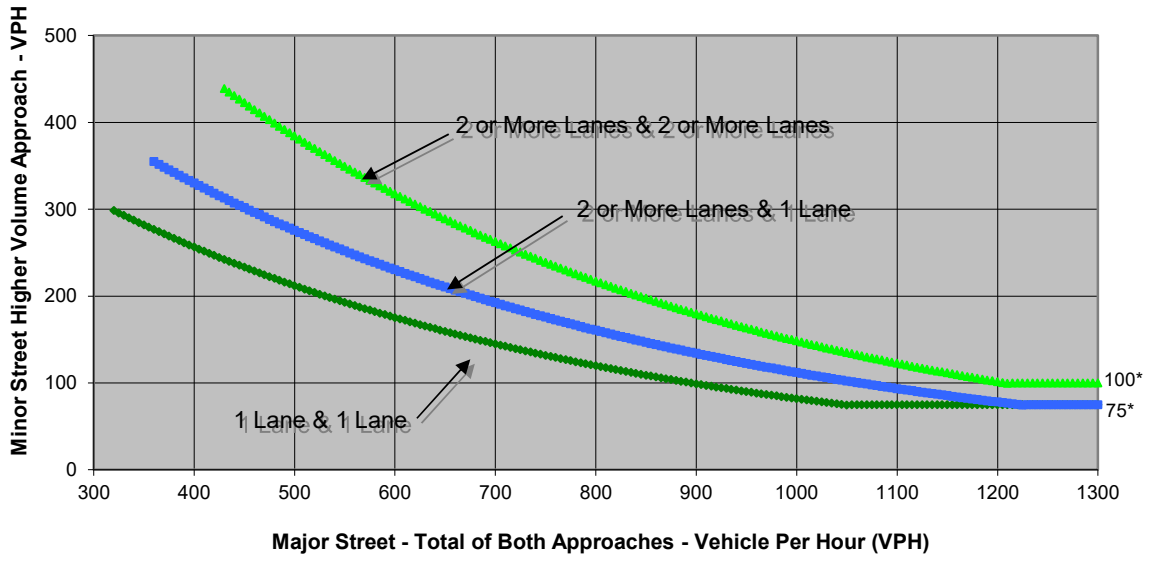
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	10	0	0
Through	0	0	560	720
Right	0	140	445	40
Total	0	150	1,005	760

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	I-505 SB	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**1,765**	**150**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	Farmstead Transportation Study
Scenario	Cumulative Plus Project
Peak Hour	AM
Major Street	Grant Ave
Minor Street	I-505 SB

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	10	0	0
Through	0	0	560	720
Right	0	140	445	40
Total	0	150	1,005	760

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	23.8
Approach with Worst Case Delay	SB
Total Vehicles on Approach	150

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Cumulative Plus Project	**1**	**150**	**1,915**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Grant Ave
Minor Street	I-505 SB

Project	Farmstead Transportation Study
Scenario	Cumulative Plus Project
Peak Hour	PM

Turn Movement Volumes

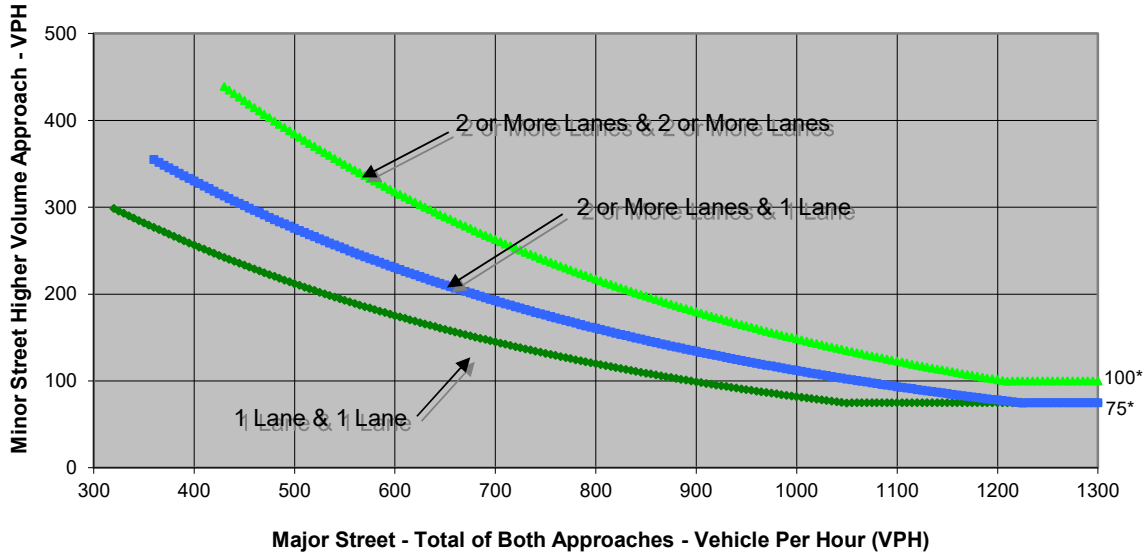
	NB	SB	EB	WB
Left	0	5	0	0
Through	0	0	745	1,010
Right	0	150	475	40
Total	0	155	1,220	1,050

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Grant Ave	I-505 SB	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**2,270**	**155**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Grant Ave
Minor Street	I-505 SB

Project	Farmstead Transportation Study
Scenario	Cumulative Plus Project
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	5	0	0
Through	0	0	745	1,010
Right	0	150	475	40
Total	0	155	1,220	1,050

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	41.4
Approach with Worst Case Delay	SB
Total Vehicles on Approach	155

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Cumulative Plus Project	**1.8**	**155**	**2,425**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

Farmstead Subdivision Project

SCH# 2021110261

Final Environmental Impact Report

Prepared for
City of Winters

January 2025

Prepared by

RANEY PLANNING & MANAGEMENT, INC.
1501 Sports Drive, Suite A, Sacramento, CA 95834

Farmstead Subdivision Project
Final Environmental Impact Report

SCH# 2021110261

Lead Agency

City of Winters Community Development Department
Planning Division
318 First Street
Winters, CA 95694

David Dowswell
Contract Planner
(530) 794-6718

Prepared By

Raney Planning and Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834
(916) 372-6100

Contact:
Rod Stinson
Vice President

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1. Introduction and List of Commenters

1. INTRODUCTION AND LIST OF COMMENTERS

1.1 INTRODUCTION

This Final Environmental Impact Report (EIR) contains comments received during the Draft EIR public review period for the Farmstead Subdivision Project (proposed project). This document has been prepared by the City of Winters, as Lead Agency, in accordance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, Section 15132. The Introduction and List of Commenters chapter of the Final EIR discusses the background of the Draft EIR and purpose of the Final EIR, identifies the comment letters received on the Draft EIR, and provides an overview of the organization of the Final EIR.

1.2 BACKGROUND

The Draft EIR identifies the proposed project's potential environmental impacts and the mitigation measures that would be required to be implemented. The Draft EIR includes the following environmental analysis chapters:

- Aesthetics;
- Agricultural Resources;
- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural and Tribal Cultural Resources;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services and Utilities;
- Transportation;
- Statutorily Required Sections; and
- Alternatives Analysis.

The remaining environmental issue areas identified by Appendix G of the CEQA Guidelines are addressed in the Initial Study prepared for the proposed project, which was circulated for review with the Notice of Preparation (NOP) and included as Appendix A of the Draft EIR.

In accordance with CEQA, the City of Winters used the following methods to solicit public input on the Draft EIR:

- An NOP for the Draft EIR was released for a 30-day public review period from November 18, 2021 to December 17, 2021. The NOP comment letters are included as Appendix B to the Draft EIR.
- A public scoping meeting was held before the Planning Commission on November 30, 2021 at 2:30 PM to solicit comments regarding the scope of the Draft EIR.
- On September 13, 2024, the Draft EIR was submitted to the State Clearinghouse for distribution to State agencies for a 45-day public review period from September 13, 2024 to October 28, 2024.

- On September 13, 2024 a Notice of Availability (NOA) of the Draft EIR was posted to the City's website (https://www.cityofwinters.org/179/Community-Development.) and printed copies were made available for public review at the following location during normal business hours:

  City of Winters Community Development Department
  318 First Street
  Winters, CA 95694

All public comments received on the Draft EIR are listed in this chapter, and written responses to comments are included in Chapter 2, Response to Comments, as discussed in more detail in Section 1.6 of this chapter.

1.3 PURPOSE OF THE FINAL EIR

Pursuant to CEQA Guidelines Section 15132, this Final EIR consists of the following:

1. A list of persons, organizations, and public agencies commenting on the Draft EIR (included as Section 1.4 of this chapter);
2. Comments received on the Draft EIR (Chapter 2 of this Final EIR);
3. Responses to the comments received on the Draft EIR (Chapter 2 of this Final EIR);
4. Revisions to the Draft EIR (Chapter 3 of this Final EIR); and
5. Any other information added by the Lead Agency.

1.4 LIST OF COMMENTERS

The City of Winters received seven comment letters during the public comment period on the Draft EIR for the proposed project. The comment letters were authored by the following agencies and individuals.

Agencies

Letter 1 ..... Winters Joint Unified School District
Letter 2 ..... Yolo Transportation District

Groups

Letter 3 ..... Mark Loper (Reuben, Junius, & Rose, LLP)

Individuals

Letter 4 ..... Ken Britten
Letter 5 ..... David and Susan Hyde
Letter 6 ..... Kate Laddish
Letter 7 ..... Carol Scianna

1.5 CERTIFICATION OF THE FINAL EIR

State law requires that the City make several types of CEQA "findings" at the time of final action on the project. Findings describe the conclusions reached regarding particular issues, including specific evidence in support of those conclusions. The Final EIR typically provides much of the substantial evidence to support these findings. The required findings for the project are as follows:

- Certification of the Final EIR (CEQA Guidelines Section 15090) – These findings support the adequacy of the Final EIR for decision-making purposes. The Lead Agency must make the following three determinations in certifying a Final EIR:

    1. The Final EIR has been completed in compliance with CEQA.
    2. The Final EIR was presented to the decision-making body of the Lead Agency, and the decision-making body reviewed and considered the information in the Final EIR prior to approving the project.
    3. The Final EIR reflects the Lead Agency's independent judgment and analysis.

- Findings Regarding Significant Impacts and Project Alternatives (CEQA Guidelines Section 15091) – These findings explain how the City chose to address each identified significant impact, including the mitigation measures adopted or an explanation of why such measures are infeasible. A discussion of the feasibility of project alternatives is also required by this section (see also CEQA Guidelines Section 15126.6[f]).

Pursuant to CEQA Guidelines, Section 15093(b), when a Lead Agency approves a project that would result in significant and unavoidable impacts, the agency must state in writing the reasons supporting the action (Statement of Overriding Considerations). The Statement of Overriding Considerations shall be supported by substantial evidence. The Farmstead Subdivision Project would result in significant and unavoidable impacts related to agricultural resources, greenhouse gas (GHG) emissions, and transportation; thus, a Statement of Overriding Considerations must be adopted if the project is approved. The required Findings of Fact and Statement of Overriding Considerations will be included as part of the resolution considered by the City of Winters.

1.6 ORGANIZATION OF THE FINAL EIR

The Final EIR is organized into the following chapters.

1. Introduction and List of Commenters

Chapter 1 provides an introduction and overview of the document, describes the background of the Draft EIR and the purposes of the Final EIR, provides a list of commenters, and describes the organization of the Final EIR.

2. Responses to Comments

Chapter 2 presents the comment letters received and responses to each comment within the letters. Each comment letter received has been numbered at the top of the page and bracketed to indicate how the letter has been divided into individual comments. Each comment is given a number with the letter number appearing first, followed by the comment number. For example, the first comment in Letter 1 would have the following format: 1-1. The response to each comment references the comment number.

3. Revisions to the Draft EIR Text

Chapter 3 summarizes minor changes made to the Draft EIR text since its release.

4. Mitigation Monitoring and Reporting Program

CEQA Guidelines, Section 15097, requires lead agencies to adopt a program for monitoring the mitigation measures required to avoid the significant environmental impacts of a project. The

intent of the Mitigation Monitoring and Reporting Program (MMRP) is to ensure implementation of the mitigation measures identified within the EIR for the Farmstead Subdivision Project.

2. Responses to Comments

2. RESPONSES TO COMMENTS

2.1 INTRODUCTION

The Responses to Comments chapter contains responses to each of the comment letters submitted regarding the proposed project Draft EIR during the public review period.

2.2 RESPONSES TO COMMENTS

The following seven letters were received by the City during the public comment period for the Draft EIR. Each bracketed comment letter is followed by numbered responses to each bracketed comment. The responses amplify or clarify information provided in the Draft EIR and/or refer the reader to the appropriate place in the document where the requested information can be found. Comments that are not directly related to environmental issues (e.g., opinions on the merits of the project that are unrelated to its environmental impacts) are either discussed or noted for the record, as appropriate. Where revisions to the Draft EIR text are required in response to the comments, such revisions are noted in the response to the comment, and are also listed in Chapter 3 of this Final EIR. All new text is shown as double underlined and deleted text is shown as ~~struck through~~.

The changes to the text contained in the Draft EIR represent only minor clarifications/amplifications and do not constitute significant new information. In accordance with CEQA Guidelines, Section 15088.5, recirculation of the Draft EIR is not required. Each letter has been considered by the City and addressed, according to CEQA Guidelines Section 15088, prior to certification of this Final EIR.

Letter 1

10-28-24 Rec'd By Kristine DeGuerre 8:45am

WINTERS JOINT UNIFIED SCHOOL DISTRICT **BOARD OF TRUSTEES**

909 WEST GRANT AVE., WINTERS, CA 95694
(530) 795-6100 FAX (530) 795-6114

RODY BOONCHOUY, Ed.D.
SUPERINTENDENT

JOEDY MICHAEL
STERLING DAVIS
CARRIE GREEN
KRISTIN TROTT
EVERARDO ZARAGOZA

October 25, 2024

David Dowswell
Contract Planner
City of Winters
Community Development Department
318 First Street
Winters, CA 95694

Dear Mr. Dowswell,

1-1 The Winters Joint Unified School District (WJUSD, "the District") is commenting on the Draft Environmental Impact Report for the Farmstead Subdivision Project ("Report") to clarify some points about the District's student enrollment and capacity trends and the potential impact that the new housing will have on WJUSD schools and students.

1-2 Page 4.8-23 of the Report indicates that WJUSD schools have enough capacity to accommodate the students who will be generated by the Farmstead Subdivision homes. However, this statement of a "less than significant impact" is an oversimplification for two main reasons:

1-3 1. Firstly, the capacity cited from the District's Facility Master Plan includes portable classrooms that are not considered long-term student housing. The Facility Master Plan cited makes this distinction, and since this distinction is not mentioned in the Report, the District wants to emphasize that there are already insufficient permanent classroom facilities to accommodate current WJUSD enrollment. Every single student generated by new development, including the Farmstead Subdivision Project, will add to the District's need to construct new permanent school facilities as portable classrooms become unusable over time. This is pertinent to any assessment of environmental impact, as the construction of new classrooms, ancillary facilities, and even potentially the construction of an entire new school site would all have environmental consequences, and this need will be directly driven by students generated by the project covered in the Report.

1-4 2. Additionally, it is crucial for the District's planning to understand that the Farmstead Subdivision Project is but one of several that are either under construction or identified in the potential to add new homes within the District over the next several years. While any individual project can state that the students they will generate will not have a significant impact, the cumulative impact of all projects will create the need for additional school facilities. As already mentioned, every student generated will add to the already existing

Letter 1 Cont.

1-4 cont.

need to build more permanent school facilities, but in the shorter term, there will also be some immediate needs that are directly driven by students who move into the District because of new residential development.

a. This is especially true at Waggoner Elementary School where the District must accommodate the State's unfunded mandate to serve all Transitional Kindergarten (TK) students by the 2025-26 school year. Every TK student generated by new development will require specialized facilities that must be constructed in proportion to this growing population; therefore, every development that adds students immediately contributes to the District's need for new facilities.

1-5

b. Specialized Career Technical Education (CTE) facilities at the high school are also restricted in how many students they can accommodate, and additional students will add to the need for these facilities.

1-6

c. Ancillary facilities such as MP Rooms, gymnasiums, libraries, toilets, and administrative spaces all need to be scaled to the number of classrooms and students at a school. As more students enroll with the District due to new residential development, expansion or reconstruction of these facilities will be needed. All school facilities constructed as a result of increased enrollments create potential environmental impacts.

1-7

1-8

The true cost of constructing the facilities necessitated by the additional student enrollment resulting from this project will be far higher than the amount of school impact fees. The District has already received generous local contributions from its existing community, and it is maximizing this contribution with matching funds from the State at every opportunity. However, this funding is already needed for projects that will serve the existing population; the additional needs that will be driven by increased enrollment from new development should be mitigated appropriately.

1-9

The Winters Joint Unified School District requests that the Study acknowledge the Farmstead Subdivision Project's impact to the need for additional school facilities, be that in the form of additional permanent classrooms for long-term student capacity, or for specialized facilities such as TK classrooms, CTE classrooms and labs, and ancillary facilities. Additionally, WJUSD requests that the official record of this project reflect its contribution to a more significant cumulative impact than the individual project in isolation would indicate. If WJUSD is to continue providing the same level of excellence to future families who move into new housing constructed in the near future, the District will need to provide new school facilities, and this need should be documented accurately, especially for the potential environmental impact of this new construction.

1-10

Finally, the District invites the City of Winters and the developers of the Farmstead Subdivision Project to meet to discuss how to mitigate the impacts due to development on WJUSD students and the District's resulting school facility needs. In addition to the need for District classroom and expanded ancillary facilities, there can be consideration for community use facilities on the project site that would benefit WJUSD students (play structures, field space, hardscape for

Letter 1 Cont.

1-10 cont.

sports recreation), as well as City infrastructure that would support students (path of travel to school, lighting, crosswalks). WJUSD would greatly appreciate the opportunity to meet to develop solutions in these areas.

Sincerely,



Rody Boonchouy, Ed.D.
Superintendent
Winters Joint Unified School District

LETTER 1: WINTERS JOINT UNIFIED SCHOOL DISTRICT

Response to Comment 1-1

The comment is an introductory statement and does not address the adequacy of the Draft EIR.

Response to Comment 1-2

The comment is a statement noting specific comments to follow. The comments are addressed below.

Response to Comment 1-3

In response to the comment, Table 4.8-1 and Table 4.8-3 of Chapter 4.8, Public Services and Utilities, of the Draft EIR are hereby revised as follows:

Table 4.8-1
Schools Serving the Project Site

School	Grades	Enrollment	Capacity*
Winters High School	9-12	493	729
Winters Middle School	6-8	340	594
Shirley Rominger School	3-5	346	500
Waggoner Elementary School	TK-2	389	475

* As detailed in the WJUSD Facility Master Plan, the capacity numbers noted herein include use of portable classrooms, which are not intended as long-term facility solutions.

Source: Winters Joint Unified School District. Facility Master Plan. Fall 2023.

Table 4.8-3
Enrollment, Capacity, and Student Generation by School*

School	Existing Enrollment	Students Generated by Project	Project Plus Existing Enrollment	Capacity**
Winters High School	493	35	528	729
Winters Middle School	340	38	378	594
Shirley Rominger School	346	34***	380	500
Waggoner Elementary School	389	34***	423	475

* Excluding Wolfskill Career Readiness Academy, an alternative education high school on the same campus as Winters High School

** As detailed in the WJUSD Facility Master Plan, the capacity numbers noted herein include use of portable classrooms, which are not intended as long-term facility solutions.

*** Students generated by the proposed project for grades kindergarten through grade five divided in half between Shirley Rominger School and Waggoner Elementary School

Source: Winters Joint Unified School District, Fall 2023.

In addition, as demonstrated in the Winters Joint Unified School District (WJUSD) Facility Master Plan, the largest enrollment projections are greater than the anticipated number of students

summarized in Table 4.8-3 of the Draft EIR, which includes existing enrollment. Therefore, the increase in enrollment generated by the proposed project would not exceed the projections in the WJUSD Facility Master Plan. Furthermore, as stated on page 4.8-3 of the Draft EIR, the WJUSD collects a development impact fee specific to school facilities. Effective May 20, 2024, the WJUSD Impact Fee is $5.17 per sf of residential development, and $0.84 per sf of commercial development. The proposed project would be required to pay all applicable fees to the WJUSD.

Response to Comment 1-4

The commenter is noting the importance of considering the overall demand of school facilities. Potential impacts to school facilities are discussed on page 4.8-23 and 4.8-24 within Chapter 4.8, Public Services and Utilities, of the Draft EIR. As discussed therein, the proposed project would be subject to school facility impact fees to mitigate any potential project-related increases of student enrollment. The WJUSD collects a development impact fee specific to school facilities and requires the payment of development fees based on the square footage of the new development to the WJUSD.

According to Senate Bill (SB) 50, payment of the necessary school impact fees for the project would be considered full and satisfactory CEQA mitigation. In addition, Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […] involving […] the planning, use, or development of real property" (Government Code 65996[b]). With respect to cumulative impacts, future development projects would be required to pay SB 50 school impact fees, similar to the proposed project, which would contribute to the facilitation of school expansions in order to serve the needs of the area. Therefore, the proposed project, in combination with future development occurring under buildout of the City of Winters General Plan, would result in a less-than-significant cumulative impact related to the need for new, or improvements to existing, school facilities.

Response to Comment 1-5

See Response to Comment 1-4.

Response to Comment 1-6

See Response to Comment 1-4.

Response to Comment 1-7

See Response to Comment 1-4. As discussed therein, future development projects would be required to pay SB 50 school impact fees, similar to the proposed project, which would contribute to the facilitation of school expansions in order to serve the needs of the area. In addition, future development projects would be required to undergo separate CEQA analysis, as necessary, to determine whether they would increase enrollment such that the provision of new or physically altered school facilities would be required.

Response to Comment 1-8

The comment does not directly address the adequacy of the Draft EIR; however, as discussed on page 4.8-24 of Chapter 4.8, Public Services and Utilities, of the Draft EIR, payment of school impact fees constitutes adequate mitigation under CEQA. Nonetheless, the comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 1-9

The City acknowledges that the project is contributing to an increase in district-wide demand. As discussed on pages 4.8-36 and 4.8-37 within Chapter 4.8, Public Services and Utilities, of the Draft EIR, cumulative buildout within the City and surrounding area could result in overcrowding at schools in the area. However, each individual development would be required to pay SB 50 school impact fees, similar to the proposed project, which would contribute to the facilitation of school expansions in order to serve the needs of the area. Furthermore, according to SB 50, payment of the necessary school impact fees for the project would be considered full and satisfactory CEQA mitigation.

As previously discussed, Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […] involving […] the planning, use, or development of real property" (Government Code 65996(b)). Therefore, the proposed project, in combination with future development occurring under buildout of the City of Winters, would result in a less-than-significant cumulative impact related to the need for new, or improvements to existing, school facilities.

Response to Comment 1-10

See Response to Comments 1-4 and 1-8.

The commenter is requesting the City of Winters and developers of the proposed project to hold a meeting. The comment does not address the adequacy of the Draft EIR, but the request has been noted and will be forwarded to the decision-makers for their consideration.

Letter 2

Yolo Transportation District

To
David Dowswell
Contract Planner

City of Winters
318 First Street
Winters, CA 95694

October 17, 2024

Yolo Transportation District Comments re: Winters Farmstand Subdivision Project DEIR

Dear David Dowswell,

2-1 In September 2024, The Yolo Transportation District (YoloTD) received the Notice of Availability for the Draft Environmental Impact Report for the Farmstand Subdivision Project. As the consolidated countywide transportation services and congestion management agency, YoloTD appreciates the opportunity to comment on the project.

2-2 **Overview of Current Transit Service.** As noted on Page 4.9-22 of the DEIR, YoloTD currently offers microtransit service, the BeeLine, to Winters. The name of the service should be changed in the DEIR. We no longer provide fixed-route service to the area, which was provided by Routes 220 and 220C but was discontinued during COVID. With the increase in density this project provides for Winters leading to a potential increase in ridership, YoloTD is considering restoring fixed-route service to Winters. Further increasing the project density would help increase this possibility. Please work with our Operations team to discuss.

2-3 **Project Land Use.** The Project DEIR includes a rezoning application that would convert existing agricultural land to a mix of residential and commercial uses of varying sizes. YoloTD is encouraged by the plan to maximize the residential dwelling units per acre. YoloTD recommends that a significant portion of the multi-family units be offered to low-income families over market-rate as these populations use public transportation at higher rates, which will reduce this development's VMT while helping the City of Winters fulfill its Housing Element and Regional Housing Needs Allocation (RHNA) allocation.

2-4 **Transportation Network.** From a connectivity perspective, YoloTD supports the proposed project site layout with the new streets designed in a grid pattern that connects to existing streets to the west and includes a connection to a potential future development to the north. The alleyway connections not shown in Lot A for the townhomes should continue this connectivity idea by extending Colby Lane into the project site.

YoloTD appreciates the inclusion of bus stops as noted on Page 4.9-22. YoloTD would require two stops, one for buses traveling in each direction. Due to uncertainty with timing with this project

Letter 2 Cont.

2-4 cont. and with YoloTD's restoration of fixed-route transit to Winters, the project should provide ADA-compliant space for future bus stops, including space for a shelter and possibly other amenities. As the project progresses, work with YoloTD to identify the appropriate locations for the stops, required amenities, and confirm maintenance agreements.

2-5 YoloTD strongly recommends the project widen the proposed eight-foot shared-use paths provided throughout the project shown in cross section B on Page 3-9 of the DEIR. As these spaces will be shared between pedestrians and bicyclists, providing the minimum widths may cause unnecessary conflicts between users, especially as these facilities will likely be used by families with children and/or pets who can travel unpredictably or may startle easily. Ten feet should be considered the minimum width in this case, but 12 is preferred.

2-6 The vehicle lanes on Main Street should be narrowed to 11 feet with ten feet preferred. Narrower lanes discourage speeding and would be more consistent with side streets. Narrowing the lanes opens more room for wider sidewalks or bike lanes, further encouraging residents to use active transportation modes while they travel around the project.

2-7 The intersection of SR 128 and E Main Street should include high-visibility crosswalks. Pedestrian connectivity for the residential neighborhoods to the south of the project to the commercial land uses included in this project would help the City of Winters achieve its Climate Action Plan goals for Mobility by enhancing space given to bicyclists and pedestrians to make them feel safer crossing this Caltrans facility.

2-8 YoloTD is currently developing the Yolo Active Transportation Corridor (YATC) plan. YATC is a long-range transportation planning, community engagement, and construction engineering project that will develop an active transportation plan for a network of multi-use trails that will help to address barriers to mobility for low-income and minority residents of Yolo County. SR 128 is an identified roadway where a trail will be recommended. This project, the City of Winters, and YoloTD should work together to improve connectivity to the proposed Interstate 505 bicycle/pedestrian overcrossing for the current and future residents of Winters and the surrounding community.

2-9 **TDM/VMT Plan.** This project would generate vehicle miles traveled (VMT) that exceeds the SACOG threshold. YoloTD agrees with the DEIR recommendation on Page 4.9-22 that a Transportation Demand Management (TDM) Plan should be developed for this project. A TDM plan should be developed by experts in the field, employ best practices, and require membership in the existing countywide TDM program, Yolo Commute, as a condition of approval and to assist with implementation.

2-10 The topics referenced in this letter provide some insight into our thoughts on this exciting development project. We look forward to collaborating with the City of Davis and the project applicant as it proceeds through the City's development application process.

Sincerely,

Brian Abbanat
Planning Director

LETTER 2: YOLO TRANSPORTATION DISTRICT

Response to Comment 2-1
The comment is an introductory statement and does not address the adequacy of the Draft EIR.

Response to Comment 2-2
In response to the comment, page 4.9-4 of Chapter 4.9, Transportation of the Draft EIR is hereby revised as follows:

> The Yolo County Transportation District (YCTD) provides public transit service (Yolobus) in the City limits. Currently, the City of Winters is served by the Yolobus ~~YOUR Ride~~ BeeLine on-demand microtransit service, which provides point-to-point rides within the City and to/from the cities of Davis and Vacaville. The service is available Monday through Saturday between 8:30 AM and 4:30 PM.

In addition, page 4.9-22 of the Draft EIR is hereby revised as follows:

> The City of Winters is served by the Yolobus ~~YOUR Ride~~ BeeLine on-demand microtransit service. The service provides point-to-point rides within the City (including the adjacent El Rio Villa community) and to/from the cities of Davis and Vacaville.

The comment related to the potential return of fixed service does not address adequacy of the Draft EIR, but is noted for the record and will be forwarded to the decision-makers.

Response to Comment 2-3
As presented on page 3-16 of Chapter 3, Project Description, of the Draft EIR, Winters Municipal Code Section 17.200.030 establishes that all development projects consisting of five or more residential units within the City must include inclusionary housing units equal to 15 percent of the total number of residential units in the development project, excluding density bonus units. The 15 percent inclusionary housing requirement must consist of six percent very low-income units and nine percent low-income or moderate-income units, in proportion to the unmet needs for each identified group in the 2021-2029 Housing Element Update, which was adopted by the City of Winters on March 15, 2022. In addition, the distribution of unit categories is stated on page 4.6-7 of Chapter 4.6, Land Use and Planning/Population and Housing of the Draft EIR. The comment does not address the adequacy of the Draft EIR.

Response to Comment 2-4
As noted in Chapter 4.9, Transportation, on page 4.9-22, the Draft EIR states the City of Winters General Plan Policy III.B.3:

> Given that the proposed project would include higher density residential and commercial uses, the construction of the proposed bus stop and turnout on westbound SR 128 at East Main Street would ensure consistency with this policy.

The comment does not specifically address the adequacy of the Draft EIR. The commenter's request for an additional bus stop will be forwarded to the decision-makers for their consideration.

Response to Comment 2-5

The commenter is requesting larger pedestrian pathways; however, the comment does not specifically address the adequacy of the Draft EIR. As stated in Chapter 4.9, Transportation, of the Draft EIR, the proposed project would not result in impact to bicycle or pedestrian facilities with the implementations required mitigation measures.

Response to Comment 2-6

The commenter does not address the adequacy of the Draft EIR. The comment has been noted and will be forwarded to the decision-makers for their consideration.

Response to Comment 2-7

See Response to Comment 2-5. In addition, as noted on page 4.9-23 of Chapter 4.9, Transportation, of the Draft EIR, the proposed project would be required to implement Mitigation Measure 4.9-1(a), which requires installation of a traffic signal, marked crosswalks, bike lane conflict markings, and bicycle intersection crossing markings at the State Route (SR) 128 (East Grant Avenue)/East Main Street intersection. The traffic signal would provide temporal separation between bicyclists, pedestrians, and conflicting vehicular movements (e.g., through the provision of pedestrian crossing phases).

Response to Comment 2-8

The comment is noted for the record and the City of Winters is committed to coordinating with Yolo Transportation District in their regional planning efforts.

Response to Comment 2-9

The comment does not address the adequacy of Draft EIR; however, the recommendations are noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 2-10

The comment is a concluding statement and does not address the adequacy of Draft EIR.

Letter 3

REUBEN, JUNIUS & ROSE, LLP

Mark Loper
mloper@reubenlaw.com

October 25, 2024

Delivered Via Email (dave.dowsell@cityofwinters.org; rods@raneymanagement.com)

City of Winters Community Development Department
Planning Division
318 First Street
Winters, CA 95694
Attn: David Dowswell, Contract Planner

Raney Planning and Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834
Attn: Rod Stinson, Vice President

Re: Farmstead Subdivision Project – Draft EIR Comment Letter
SCH#: 2021110261
Our File No: 11436.01

Dear Mr. Dowswell:

3-1 Our office represents the sponsor of the Farmstead Subdivision Project (the "Project"). Please accept this comment letter on the draft Environmental Impact Report (the "Draft EIR") for the Project. Specifically, we write to request the Final EIR revise a mitigation measure in the Draft EIR relating to the obligation to acquire "active agricultural acreage" equal to the size of the Project, in a legally sufficient manner that is consistent with recent past precedent on nearby development.

Draft EIR Mitigation Measure 4.2-1, relating to the conversion of agricultural land to urban uses (the "Mitigation Measure"), provides as follows:

3-2 > Prior to initiation of grading activities for each phase of development at the Farmstead Subdivision Project site, the project applicant shall set aside in perpetuity, at a minimum ratio of 1:1 of active agricultural acreage, an amount equal to the current phase. The applicant may choose to set aside in perpetuity an amount equal to the remainder of the project site instead of at each phase. The agricultural land shall be located elsewhere in unincorporated Yolo County, through the purchase of development rights and execution of an irreversible conservation or agricultural easement.

Letter 3 Cont.

A. Background on Scope of Mitigation Measures

An Environmental Impact Report needs to identify and describe mitigation measures to minimize the potential significant environmental effects identified in the EIR.[1] However, mitigation measures need to meet constitutional requirements, including that there is an essential nexus (i.e. connection) between the mitigation measure and the governmental interest, and that the mitigation measure be roughly proportional to the impacts of a project,[2] including if the mitigation measure is an ad hoc exaction.[3]

3-3

Compliance with a regulatory permit or other similar process may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact.[4] Similarly, case law has established that imposition of an impact fee can be identified as an appropriate form of mitigation.[5]

Also, when crafting mitigation measures, a public agency may exercise only those powers provided to it by a legal authority independent of CEQA.[6] Examples of courts determining a public agency could not exercise powers outside of its authority in a mitigation measure include: a flood control agency acquiring property outside its jurisdiction;[7] the Coastal Commission requiring mitigation measures for the impacts of the parts of a project outside the Commission's jurisdiction;[8] and the City of Tracy requiring mitigation of traffic impacts beyond city boundaries.[9]

B. The Property is Not Prime, Unique, or Statewide Farmland

The CEQA Guidelines require an analysis of if the Project would convert "Prime Farmland," "Unique Farmland," or "Farmland of Statewide Importance" to a non-agricultural use.[10] Among other criteria, according to the Draft EIR, prime farmland and farmland of statewide importance require the land to have been used for the production of irrigated crops at some time during the past two update cycles, or four years, prior to the mapping date.[11] Unique farmland requires some cultivation in the last four years since the state published the most recent statewide farmland map.[12]

3-4

It is our understanding the Property owner has owned the Property since 2006. Since then, the site has been used for dry farming of hay, and nothing else. And it has not been used for irrigated crops at any point during that period. Dry hay farming has not occurred since at least September of either 2016 or 2017. As a result, the CEQA Guidelines require a finding of no significant impact.

C. The Mitigation Measure is Legally Deficient

3-5

Here, the Mitigation Measure is legally deficient for several reasons: it is duplicative of an impact fee meant to address the exact same loss of potential agricultural land by new development; it exceeds Winters' police power by requiring the acquisition of land outside Winters' municipal

Letter 3 Cont.

3-5 cont.

borders; and the Draft EIR does not adequately explain how the Mitigation Measure is roughly proportional to the impact on land that has not been used for irrigated farming for at least 18 years.

First, the Mitigation Measure is duplicative of the habitat conservation mitigation fee required of the Project.[13] Winters' 1992 General Plan—still the governing General Plan—includes a policy to support the efforts of Yolo County to establish a land conservation trust and implementing programs relating to transferring development rights "or conservation easements."[14]

3-6

As we understand it, that policy led to or is in direct support of the Yolo Habitat Conservancy, which is a joint powers authority between Yolo County and several cities in the county and responsible for identifying appropriate sites for conservation easements.[15] In furtherance of the General Plan, Winters then adopted an impact mitigation fee that is applied against certain developments, including the Project.[16] The fee proceeds are transferred to the Conservancy. Per the Winters Municipal Code, the purpose of this mitigation fee is to conserve species and the "natural communities and agricultural land" on which they depend.[17] Thus, this fee is consistent with the General Plan and its EIR and is meant to address the loss of potential agricultural land to residential development.

As we understand, the Project will be required to make a habitat conservation mitigation fee payment of $16,559/acre for the Property, which if all 61.9 acres are subject to the fee would be roughly $1 million. This fee should be identified as a mitigation for the Project and obviate the need for a second duplicative exaction as set out in the Mitigation Measure.

3-7

Further, the Draft EIR is internally inconsistent on this very point. The Draft EIR's discussion of biological impacts notes that the Yolo Habitat Conservancy is required to protect approximately 33,300 acres over 50 years, "primarily through the acquisition of habitat conservation easements on agricultural land funded with development fees paid by project proponents"—i.e. the habitat conservation mitigation fee.[18] It then determines that no additional mitigations are required relating to biology.

3-8

The Draft EIR fails to explain how the development fee that is paid to acquire "habitat conservation easements on agricultural land" is sufficient for biological resources but insufficient as it relates to agricultural resources. There does not seem to be an explanation except what seems to be an off-the-shelf form letter from the California Department of Conservation requesting a conservation easement. The letter acknowledges that other forms of mitigation (like an impact fee that finances conservation easements, i.e. the habitat conservation fee) might be appropriate. Notably, the letter does not acknowledge the existence of the habitat conservation mitigation fee.

3-9

Also, a mitigation measure must be derived from another legal authority independent of CEQA. As the cases mentioned above make clear, the Mitigation Measure—which requires the Project sponsor to acquire agricultural land "elsewhere in unincorporated Yolo County"—attempts to use Winters' police power to force the Project to leave Winters' jurisdiction to carry out the mitigation measure. That is not permitted under CEQA.

Letter 3 Cont.

3-10

Furthermore, the City has an obligation to explain how the cumulative costs relating to both paying the habitat conservation mitigation fee and paying private landowners to acquire nearly 62 acres of agricultural land and then imposing a conservation easement is roughly proportional to the loss of potential agricultural land. Further to this point, as we understand it, the Property has not been used for irrigated farming for at least 18 years or dry farming for at least 7-8 years. The loss of potential agricultural land that is not actively farmed should not have the same value as land that is actually farmed (or has been farmed in the recent past).

3-11

Finally, because the City is not permitted to exercise its police powers to require the purchase of property strictly in Yolo County, it is left unaddressed in the Draft EIR (1) if there is enough land within Winters to realistically acquire agricultural land at a 1-to-1 ratio, and if so (2) the cost, and (3) if that cost is roughly proportionate to the loss of land that has not been used for for 7-8 years. Thus, it is unclear if a revised Mitigation Measure that does not exceed Winters' police power could even be feasible, and if so the cost and whether that cost itself would be disproportionate to the loss of land that is not currently used and has not in the recent past been used for irrigated farming.

D. The Mitigation Measure is Inconsistent with Recent Precedent

In 2020, the City of Winters approved a Mitigated Negative Declaration for the Walnut Lane 10 project (the "Walnut Lane 10 MND"). That project included the subdivision of a 10-acre site for the eventual development of 54 single-family residential units.[19] The City of Winters ("City") found that the project would have a "less than significant" impact on the conversion of prime farmland, unique farmland, or farmland of statewide importance.[20]

3-12

In making this determination, the Walnut Lane 10 MND determined that "the City of Winters General Plan EIR has previously identified the conversion of important farmland to be significant and unavoidable impact, and mitigation measures have been provided."[21] The Walnut Lane 10 MND identified seven goals in the City of Winters General Plan that promote the continued productivity of agricultural land and prevent its premature conversion to urban uses. It also noted that the General Plan EIR identifies two mitigation measures to address the loss of agricultural land.

The Walnut Lane 10 MND did not identify a project-specific mitigation measure to acquire a conservation easement for 10 acres of land. It also did not identify any General Plan EIR mitigation measure requiring 1-to-1 conservation easements on a project-by-project basis. The Project's environmental setting is nearly identical to the Walnut Lane 10 Project, and the project type—subdivision followed by construction of residential units—is largely the same. The City should adhere to the recent precedent it established in the Walnut Lane 10 MND and not impose additional project-specific mitigation measures requiring 1-to-1 conservation easements.

///

Letter 3 Cont.

E. Conclusion

3-13

The City should make a finding of no significant impact because the Property is not prime farmland, unique farmland, or farmland of statewide importance. And even assuming for the sake of argument that it is one, the Mitigation Measure is inconsistent with recent precedent on a neighboring project that proposed the same conversion of prime or unique farmland to residential use. It also is duplicative of the habitat conservation fee that funds the acquisition of habitat conservation easements on agricultural land, which was used at least in part to not require any mitigations relating to biological resources. It exceeds Winters' police power by requiring acquisition of properties exclusively outside of Winters' municipal borders. And it raises significant questions about the proportionality of the cost to acquire nearly 62 acres of agricultural land for a Property that has not recently been used for agriculture, as well as practical feasibility regarding the amount of space that is actually available for acquisition.

Winters should eliminate the 1-to-1 mitigation measure, and in its place provide an analysis consistent with the Walnut Lane 10 MND along with a qualitative and quantitative discussion of the habitat conservation mitigation fee payment.

Sincerely,

REUBEN, JUNIUS & ROSE, LLP

Mark Loper

[1] 14 Cal. Code Regs. ("CEQA Guidelines") § 15126.4(a)(1).
[2] CEQA Guidelines, § 15126.4(a)(4).
[3] Id.
[4] CEQA Guidelines, § 15126.4(a)(1)(B).
[5] See Anderson First Coalition v. City of Anderson (2005) 130 Cal.App.4th 1173.
[6] Cal. Pub. Res. Code § 21004.
[7] Kenneth Mebane Ranches v. Superior Court (1992) 10 Cal.App.4th 276, 291.
[8] Sierra Club v. California Coastal Commission (2005) 35 Cal.4th 839.
[9] Tracy First v. City of Tracy (2009) 177 Cal.App.4th 912.
[10] CEQA Guidelines, Appendix G.
[11] Draft EIR, pg. 4.2-6.
[12] Id.
[13] Winters Municipal Code, Chapter 18.12.
[14] Winters 1992 General Plan, Policy VI.B.5.
[15] Winters Municipal Code, § 18.12.010.
[16] Winters Municipal Code, § 18.12.050A.
[17] Winters Municipal Code, § 18.12.010.
[18] Draft EIR, Pages 4.4-48-4.4-49.
[19] Walnut Lane 10 MND, pg. 4.
[20] Walnut Lane 10 MND, pg. 25.
[21] Id.

LETTER 3: REUBEN, JUNIUS & ROSE, LLP

Response to Comment 3-1
The comment is an introductory statement that provides reference to specific comments that are addressed below.

Response to Comment 3-2
The comment reiterates the Draft EIR and does not address the adequacy of the Draft EIR.

Response to Comment 3-3
The commenter is noting the importance for an EIR to identify mitigation measures to avoid potential significant environmental impact and requirements for a nexus and legal authority. The comment does not specifically address the adequacy of the Draft EIR.

Response to Comment 3-4
As discussed on page 4.2-7 of Chapter 4.2, Agriculture Resources, of the Draft EIR, based on the Land Capability Classification and Storie Index Rating systems, as well as the physical conditions of the project site, the California Department of Conservation (DOC) Division of Land Resource Protection's Farmland Mapping and Monitoring Program (FMMP) designates a portion of the project site as Prime Farmland (52.3 acres). Prime Farmland is land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. The land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have been used for the production of irrigated crops at some time during the two update cycles (a cycle is equivalent to two years) prior to the mapping date. As further discussed on page 4.2-7 of the Draft EIR, based on historic aerial photos, the project site has been used for farming since at least 1968, with the ground periodically tilled for row crops, hay, or other dry farming purposes. Therefore, the FMMP designation for the site as presented in the Draft EIR is appropriate.

Response to Comment 3-5
The comment is a statement that provides reference to specific comments that are addressed below.

Response to Comment 3-6
In response to the comment, page 4.2-13 of Chapter 4.2, Agricultural Resources, of the Draft EIR is hereby revised as follows:

> Mitigation Measure(s)
> Applicants of development projects within the Yolo HCP/NCCP permit area are required to complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an Avoidance/Minimization/Mitigation (AMM) plan, and fees or equivalent mitigation. Payment of the land cover fees will allow the Yolo HCP/NCCP to purchase and preserve an equivalent amount of off-site habitat of equal or greater value as the on-site habitat that would be developed as part of the proposed project. As such, payment of Yolo HCP/NCCP fees would mitigate for the loss of on-site habitat and agricultural land.

However, ~~W~~while the following mitigation measure would preserve an equivalent acreage of Farmland elsewhere, the proposed project would result in the conversion of agricultural land to urban uses and would not create new agricultural land; as such, the proposed project would lead to an overall loss of Farmland. Therefore, although implementation of the following mitigation measure would reduce the above potentially significant impact, the impact would remain *significant and unavoidable*.

4.2-1 *Prior to initiation of grading activities ~~for each phase of development at the Farmstead Subdivision Project site~~, the project applicant shall ~~set aside in perpetuity, at a minimum ratio of 1:1 of active agricultural acreage, an amount equal to the current phase. The applicant may choose to set aside in perpetuity an amount equal to the remainder of the project site instead of at each phase. The agricultural land shall be located elsewhere in unincorporated Yolo County, through the purchase of development rights and execution of an irreversible conservation or agricultural easement~~ complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an Avoidance/Minimization/Mitigation (AMM) plan, and fees or equivalent mitigation. Land cover conversion fees shall be applied for the proposed project's land cover impacts, in accordance with Yolo HCP/NCCP guidelines. Proof of compliance with the aforementioned requirements shall be submitted to the City of Winters Community Development Department for review and approval.*

The foregoing revisions do not affect the adequacy or conclusions of the environmental analysis contained in the Draft EIR.

Response to Comment 3-7
See Response to Comment 3-6.

Response to Comment 3-8
See Response to Comment 3-6.

Response to Comment 3-9
See Response to Comment 3-6.

Response to Comment 3-10
See Response to Comment 3-6.

Response to Comment 3-11
See Response to Comment 3-6.

Response to Comment 3-12
See Response to Comments 3-4 and 3-6.

Response to Comment 3-13
See Response to Comments 3-4 and 3-6. The comment is a concluding statement.

From: Ken Britten Gmail <khbritten@ucdavis.edu>
Subject: Re: DEIR comments

Letter 4

David Dowswell, Contract Planner
City of Winters Community Development Department
318 First Street
Winters, CA 95694

Dear Mr. Dowswell,

4-1 I have reviewed the Draft EIR for the proposed Farmstead subdivision project, and have some concerns about the liveability and sustainability of the proposed development.

4-2 1) Bike friendliness and connectivity. The DEIR states that by including bike paths in the plan, it is consistent with the City General Plan and Bicycle Master Plan, but closer examination shows this claim to be ill-founded. While including Class I bikeways is a good start, these are not located for maximum utility. The trail along the linear park on the east side will be good for family strolls, but not useful for bike commuting, which should be a priority to reduce VMT. Likewise, while having a good connection to Grant Avenue and East Main is laudable, until further lanes are developed, and in particular a safe connection across a future Morgan Avenue intersection, bicyclists will be forced out onto Grant Avenue, which will limit safe use, especially for younger riders. Fortunately, there are relatively easy modifications to make the plan much more connected and friendly.

4-3 a. Plan A: Add greenbelt for E-W connectivity to Broadview. It is well known that greenbelts increase liveability and attractiveness of residential developments, and bikeways in greenbelts are far safer and more appealing than those on streets. Therefore, add a greenbelt where the Broadview extension is now planned, to connect between the park and the existing Broadview Lane. This would route east-west bike traffic safely clear of Grant Avenue, and connect to existing bikeways in Walnut Park all the way to Railroad Avenue, allowing safe access to schools and the library. Ideally, it would connect to a Morgan Street extension and give access to Lorenzo's, again without requiring bike travel on Grant Avenue. The greenbelt will also serve to separate residential units from the commercial lots along Grant Avenue. This plan comes with a cost: it will probably require giving up 15 R-2 units.

b. Plan B: Add a Class I bikeway along the Broadview extension instead of a greenbelt, connected as in Plan A. This should allow keeping the 15 R-2 units on the south side of the Broadview extension in place, but at the cost of shade and attractiveness.

4-4 c. Another concern has to do with bike lanes on the minor streets in the plan. At present, these are 5-foot sidewalks set back from the street, which has on-street parking. Such sidewalks are not very useful for bicyclists, since it is hard to pass a pedestrian using the same walk. And furthermore, these are usually constructed of concrete, which has discontinuities that discourage bicyclists. So, all the streets should have Class II bikeways, and the mid-block paseos (section F, Figure 3-5) should be widened to accommodate both pedestrians and cyclists.

4-5 2) Use of natural gas. There is some ambiguity in places about the provision of natural gas. It is stated that "commercial feasability" might make them plumb for gas, and it is implied that this is for the commercial use. However, it is never clearly stated that the residential units will not be plumbed for gas. This must be clarified, and clearly state that under no circumstances will gas be used in the residential side of the development. It is also worth noting that in the mitigations listed in table 2-1, there is heavy reliance on state-approved carbon offsets for the proposed gas use. These have a number of problems, not least of which is wildfire (see reporting by Politico). It is vastly more sustainable to not develop with carbon-emitting infrastructure, since this infrastructure will lock in fossil fuel demand for decades. And now all-electric alternatives are economically and practically competitive.

4-6 3) EV charging capabilities. In Table 2-1 and on p 4.3-63, the DEIR states that residential units will be "EV-ready" per CalGreen Tier 2. Unfortunately, this is a lax standard, and Level 1 chargers (120V) are consistent with it. They state that "project-specific information is not available" to confirm that Level 2 charging capability (240V branch circuits) will be included. The City should insist on this capability

Letter 4 Cont.

4-6 cont.

being included. CalGreen Tier 2 requirements for commercial spaces are also quite lax. It would be nice to exceed them considerably. Traffic to the commercial development would be increased if Level 3 charging support (roadside fast chargers) would be included.

4-7

4) Rooftop solar. There is an apparent contradiction on page 4-3-57, section on Building Energy Demand. The EIR states that residential units will be supplied with enough solar panels to meet 100% of their anticipated demand. Yet, in the next paragraph, it also anticipates a net increase of demand of 0.85 GWh/year. Is this entirely for the commercial side? This should be clarified. Additionally, does the sizing of the residential solar systems include the anticipated increase in demand due to EV charging?

LETTER 4: KEN BRITTEN

Response to Comment 4-1
The comment is an introductory statement and does not address the adequacy of the Draft EIR.

Response to Comment 4-2
As required by Mitigation Measure 4.9-1(a) on page 4.9-23 of Chapter 4.9, Transportation, of the Draft EIR, the construction of new bicycle and pedestrian paths and facilities would be designed in accordance with the Caltrans Highway Design Manual. The required Class I shared-use path on the northern edge of SR 128, along the project site's southern boundary, shall include a minimum paved width of eight feet, plus two-foot shoulders of unobstructed all-weather surface on each side of the path. The provision of the proposed 12-foot paved path would also satisfy the applicable Caltrans design requirements. The design of the bicycle facilities shall be submitted to Caltrans and the City of Winters for review and approval, which constitutes adequate mitigation under CEQA.

Response to Comment 4-3
See Response to Comment 4-2. The commenter's suggestions are noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 4-4
See Response to Comment 4-3.

Response to Comment 4-5
As discussed on page 4.3-41 within Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, of the Draft EIR, Yolo Solano Air Quality Management District (YSAQMD) has not yet established or adopted GHG thresholds. As such, YSAQMD recommends GHG analysis consistent with Sacramento Metropolitan Air Quality Management District (SMAQMD) thresholds of significance.

As noted on page 4.3-63 of the Draft EIR, project-specific information is not available to ensure that the proposed project would be designed and constructed without natural gas infrastructure. Such information is not available for all project components, not just the restaurant kitchens. Mitigation Measure 4.3-7(a) requires that the proposed project be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site. However, Mitigation Measure 4.3-7(a) does note that if the use of all-electric for any project component(s) (e.g., an appliance) is not enforceable or commercially feasible at the time of issuance of building permit, the applicant shall be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related greenhouse gas (GHG) emissions from the component(s) using natural gas instead of electric.

As discussed on page 4.3-43 of the Draft EIR, if a project cannot incorporate the SMAQMD Best Management Practices (BMPs), other reductions or purchasing and retiring of GHG/carbon offsets can be used as an alternative method of compliance. Given that the developer demonstrates that the alternative method(s) of compliance would achieve the same reductions as those required by BMPs 1 through 3, the project can be considered to result in a less-than-significant impact related to operational GHG emissions. Thus, the requirements of Mitigation

Measure 4.3-7(a) are consistent with SMAQMD guidance. Based on the above, the analysis included in the Draft EIR regarding natural gas remains adequate. Nonetheless, the commenter's concerns have been noted for the record.

Response to Comment 4-6

See Response to Comment 4-5. The Draft EIR makes conservative assumptions to provide an analysis of the worst-case scenario. In addition, the CalGreen Standards stated on page 4.3-63, within Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, of the Draft EIR are the current California State requirements involving EV charging capabilities. Nonetheless, the comment will be forwarded to the decision-makers for their consideration.

Response to Comment 4-7

Contrary to the claim of the commenter, page 4.3-57 of Chapter 4.3, Air Quality, GHG Emissions, and Energy, of the Draft EIR does not include any apparent contradictions regarding the provision of rooftop solar associated with the proposed project. As discussed on page 4.3-57 of the Draft EIR, the 2022 California Building Standards Code (CBSC) has begun phasing in the provision of zero net energy through the use of rooftop solar. The CalEEMod modeling conducted for the proposed project accounted for the project's compliance with the 2022 CBSC rooftop solar requirements. However, as stated on page 4.3-57 of the Draft EIR and noted by the commenter, even with the provision of rooftop solar systems sufficient to meet the requirements of the CBSC, the proposed project would result in a 0.85 gigawatt-hour per year (GW/year) net increase in electricity demand.

In addition, as presented in Table 4.3-12 of the Draft EIR and required by the 2022 CalGreen Code, for single-family residences and townhomes, each dwelling unit is required to have a listed raceway to accommodate a dedicated 208/40-volt branch circuit. As such, the single-family residences and townhomes are not required to include the provision of an electric vehicle (EV) charger, and residents of the single-family residences and townhomes would not use EV chargers unless they voluntarily choose to install such EV charging equipment. As such, the increase in energy demand associated with such voluntary installation and use of EV chargers in the proposed single-family residences and townhomes is unknown and accounting for the increase in energy demand associated with potential EV charging would be highly speculative.

Based on the above, the analysis included in the Draft EIR regarding rooftop solar systems remains adequate. Nonetheless, the commenter's concerns have been noted for the record.

Letter 5

David Dowswell, Contract Planner
City of Winters Planning Commission,

Jessica Smith
Gregory Contreras, Chair
Judith Arce
Lisa Baker, Vice Chair
Ramon Altamirano

October 18, 2024

RE: Farmstead Environmental Impact Report – Response

Dear Mr. Dowswell and Planning Commission,

5-1 My name is David Hyde. My wife Susan and I are property owners at 200 Almond Drive, Winters. We have lived and raised our children here over the past thirty plus years. Our property is west of the proposed Farmstead development, and directly adjacent to it.

5-2 Based on the proposed subdivision map included in the Environmental Impact Report there will be 7000 square foot single family residential lots along our east fence line, and all of those along Almond Drive to the north of our property. This fact alone will certainly have an environmental impact from the existing farmland, including but not limited to: reduced privacy, increased lighting, noise, heat, etc. That said, we have understood that this area is zoned residential and at some point would be developed.

5-3 We were very pleased and commend the commission for your past work on the nearby Walnut 10 development where adjacent existing properties (and long time residents) on Orchard Lane only had new single story homes built directly behind them. This was a wonderful and fair compromise made by the commission, developer and City Counsel. As a resident of the same neighborhood we respectfully request the commission follow a similar approach for those of us along Almond Drive and directly adjacent to the proposed Farmstead development. Following this same path of single story homes would help maintain our privacy, quality of life and help mitigate other environmental impact concerns.

5-4 Thank you in advance for your consideration and work on this project.

Respectfully submitted,

David and Susan Hyde

LETTER 5: DAVID AND SUSAN HYDE

Response to Comment 5-1
The comment is an introductory statement and does not address the adequacy of the Draft EIR.

Response to Comment 5-2
As discussed on page 4.1-15 of Chapter 4.1, Aesthetics, of the Draft EIR, the proposed project would be required to comply with the City of Winters General Plan Policy VIII.D.7, which requires lighting in new development to be designed, installed, and maintained to minimize excessive light. In addition, the proposed project would not include any industrial land uses. Therefore, the proposed project would not violate either standard related to cumulative light pollution established by the City's General Plan EIR. As discussed on page 4.1-19 of the Draft EIR, compliance with all applicable City policies will be enforced through the City's Design Review process, as established in Chapter 17.36 of the City's Municipal Code.

In addition, as discussed on page 4.7-28 of Chapter 4.7, Noise, of the Draft EIR, a significant increase in ambient noise levels would not occur within the project site. As shown in Table 4.7-15 and Table 4.7-16 on page 4.7-29 of the Draft EIR, combined noise level exposure from project commercial and park activities would comply with the applicable City of Winters General Plan daytime and nighttime exterior noise level criteria at the closest existing noise-sensitive uses. In addition, given the predicted exterior noise levels provided in Table 4.7-15 and Table 4.7-16, and after consideration of the exterior to interior noise level reduction typically provided by standard residential construction (i.e., at least 25 dB with windows closed and approximately 15 dB with windows open), combined noise levels would comply with the General Plan daytime and nighttime interior noise level standards.

Reduced privacy and heat are topics that are not required to be addressed as part of the CEQA analysis; however, the commenter's concerns have been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 5-3
The commenter is requesting the new project consist of only new single-story homes; however, the comment does not address the adequacy of the Draft EIR. The commenter's concerns have been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 5-4
The comment is a concluding statement and does not address the adequacy of the Draft EIR.

Letter 6

To: Dave Dowswell
From: Kate Laddish
RE: Farmstead Subdivision Draft EIR
Date: Oct. 28, 2024

Dear Dave:

6-1 Thank you for your and others' work on the Farmstead project to date, including the Draft EIR for the Farmstead Subdivision Project (released Sept. 2024). My comments follow, and cover housing diversity, density, and accessibility; light pollution; stormwater management; trees; planting strips; habitat and human value and use of open space; firewise practices; evacuation planning; pedestrian and bicycle connectivity; and view coming into town.

Housing diversity, density, and accessibility

6-2 I salute the applicant including 57 townhomes (and planning to rezone some land to R-3), rather than just the two ends of the housing-density spectrum of low-density single-family and high-density multi-family housing. Winters is sorely in need of filling this housing "missing middle." During discussion about the Housing Element Update, multiple commenters requested more diverse housing stock.

Because Winters is in desperate need of more diverse housing options, I request that the entirety of the R-3 housing not wait until the third phase of project construction. If this would require having two areas zoned R-3 due to logistical concerns, that may be something to consider.

6-3 Will the 84-unit multi-family housing complex be market rate, low income/subsidized, or a mix? If subsidized, would it be for a mix of low and very low income?

6-4 Duets/duplexes are allowed at the corners in areas zoned R-1. I request the applicant make use of that option. Having duets within R-1 areas is a way of integrating different housing types, and therefore helping further our goal of inclusionary housing.

6-5 Because townhomes have multiple stories, it is more difficult for them to be accessible for people with mobility disabilities, or to remain accessible for people who wish to age in place. I request the applicant address physical accessibility of this more financially accessible housing type.

6-6 On a related note, how will the applicant address accessibility (both liveability and visitability) in all of the housing types? I urge use of universal design. Now is an especially good time to consider that since some of the R-1 homes will need elevation to decrease risk of flooding. Even one step can block people with mobility disabilities from entering or exiting a structure.

Light pollution

I salute the applicant for planning on using DarkSky-appropriate lighting.

6-7 Components of light pollution include glare, sky glow, light trespass, and clutter. Some of Winters' recent projects have staggering amounts of light pollution, and I'm delighted to see an applicant go in a different direction. I hope the City will support—and reinforce—the applicant's plan to use DarkSky-aligned lighting, and seek clarity on the plan in the EIR and in design discussions.

Letter 6 Cont.

6-7 cont.

In my comment during the November 2021 scoping meeting and in my written follow-up comment included in the DEIR, I requested that applicant address and minimize light pollution.

Since then, the Winters Natural Resources Commission, of which I serve as chair, has been working on updating and unifying Winters' outdoor lighting guidelines into a uniform outdoor lighting ordinance that would align with DarkSky International's principles and guidelines. (The Five Principles for Responsible Outdoor Lighting are that any light should be useful, targeted, low level, controlled, and warm-colored.) We described this lighting ordinance project to the City Council in our workplan update in October 2023, and Council voiced support for the Natural Resources Commission continuing this work.

The Natural Resources Commission has been exploring using a rural lighting approach, with lights at street corners (to decrease pedestrian-car collisions) but not in the middle of blocks. If the applicant wants to light pedestrian and bicycle pathways, low, downward-directed pillar walkway lights may be an option if needed.

6-8

Stormwater management

As the applicant is aware, the project area is subject to flooding now, so planning for stormwater management to avoid flooding the built environment is of highlighted importance. Converting land from agricultural use to an urbanized, paved environment increases production of stormwater since there is decreased opportunity for infiltration.

My understanding is that the stormwater from the project will go from the north side of Grant Avenue to the south side via one existing culvert, and that the water will then debouch into the swale by the PG&E facility, and then to Putah Creek.

6-9

The DEIR asserts that the project is too far away from Putah Creek for the subdivision's stormwater discharge to affect it. However, the issue isn't how far a source of stormwater is from the creek, but rather how far the source is from the stormwater system which, of course, discharges into the creek, and if the stormwater conveyance system allows for significant enough amounts of infiltration to decrease peak stormwater contribution to the creek.

I hope that the EIR will include details, including calculations, about stormwater production and management, will have more details about proposed features (e.g., ditch, basin, culvert), and will include discussion of additional mitigations (e.g., permeable pavers, how the "basin" and ditch in the park/open space will be used).

6-10

Urban heat island effect

The DEIR asserts that the (presumably largely unpaved) open space areas will offset the heat island effect of the hardscaped areas of the project. While having unpaved open space in the project area will make the overall heat island effect less than if the entire project area became built or paved, the open space is at one side of the project (so will have less benefit to the existing neighborhoods, or the denser areas of the project) and the applicant does not address or explore other options that reflect more sunlight and absorb less heat, including green roofs, the use of lighter-colored surfaces and less absorbtive building materials, and passive daytime radiative cooling applications. Will the streets be narrow enough and the street tree canopies broad enough that ultra-absorbtive asphalt will be screened from the sun by leaves during the hot months of the year?

6-11

Because the predicted and modeled temperature regime for our area points toward increased peak temperatures, more days over 100 degrees, and a significant decrease in nighttime cooling, addressing heat island effects in projects is extremely important. Heat is the top weather-related cause of death in the US, especially where there is lack of nighttime cooling.

Letter 6 Cont.

6-12 I would like the EIR to address more thoroughly the heat island effects within the project and the adjacent areas, and include a more detailed and solutions-based approach to mitigation strategies. Mitigating for urbanization-induced heating could well decrease the greenhouse gas production, since residents and businesses would be less reliant on air conditioning.

6-13 Trees
In 2022 and 2023, the Winters Natural Resources Commission substantially revised the City of Winters Master Tree List. The table includes botanical name, common name, canopy diameter, if the tree is deciduous or evergreen, whether it has showy flowers, water needs, growth rate, minimum planting width, and if it's native to this climatic region. The list was approved by the Planning Commission and the City Council, and is available on the City's website.

I hope that, in the EIR, the applicant will chose to utilize this resource to select appropriate trees for different purposes, including lining streets, in landscaping residential and commercial properties, in the park and other open space (ditch) areas.

6-14 Planting strips
To allow for street trees and other vegetation, I hope the applicant will use planting strips between sidewalks and streets. These also help make travel more pleasant for pedestrians and cyclists, which can increase non-vehicular travel within the project area, and also keep sidewalks level rather than being cut by sloping driveways. Driveway cuts make use of sidewalks extremely difficult to use for people who use wheelchairs and walkers, or who push strollers. I believe plans call for at least some of the streets to have planting strips with street trees; I want to make sure that will be throughout the project area.

6-15 Habitat and human value and use of open space
My understanding from the DEIR is that the number of acres of open space decreased in order to include the townhomes. This makes it even more important to maximize the human and habitat value of the open space.

Large expanses of unshaded lawn use a tremendous amount of water, don't get used much on hot summer days, can become too muddy to use in the winter or when overwatered, and are essentially ecological deserts with low habitat value.

Before settling on yet more unshaded lawn, I request that the applicant and the City consider the park needs of the City, and design these parks based on need and demonstrated use or lack thereof of different styles of park. For example, there's a large amount of lawn at the new Three Oaks Park. How is it being used? Does the lawn at Blue Oak Park get used much except during soccer games? What are the pros and cons of different approaches, or of including substantially more trees scattered in lawn areas so the open space would be shaded? If we need more lawns for soccer and other activities, would the planned lawn parks work for that?

What will draw people to the park/open spaces, how can open spaces have increased habitat value, and how can the two be combined? For example, could there be a pollinator garden, and could landscaping include approaches with habitat value, such as hedgerows and areas planted with native vegetation?

Play structures that are unshaded are too hot to play on during the summer. Including shading with trees or with shade structures would address this.

6-16 Would the area labeled "basin" be a lawn (similar to Blue Oak Park), or have plants and cobbles (such as in the dog park area of Walnut Park)?

Letter 6 Cont.

Firewise practices

Over the last 10 years, wildfire is increasing part of life here, and one of the largest fires in state history occurred in the Greater Winters Area in 2020.

6-17 During the scoping process, I asked for details about how this project will minimize susceptibility to fire and minimize risk of spreading fire, such as by use of firewise building and landscaping practices. I don't see this addressed in the DEIR. I request this be included in the EIR and in the design process. Options include avoiding use of highly flammable vegetation (e.g., juniper, cyprus, manzanita), especially near structures or travel corridors, no wooden fences within five feet of structures, appropriately fine grating over attic vents, etc.

What steps will be taken in design and construction to keep this project from acting as a fire conduit into the rest of the city, or a conduit for fire to get from other parts of the city into this project?

Evacuation planning

During scoping, I asked about evacuation planning and effects. I hope that will be addressed in the final EIR.

6-18 How will the road system in the project work if the project area has to be evacuated due to a fire or a flood, and how will the project affect evacuation efforts for the whole city? If the city and surrounding areas have to evacuate, how will this project help (perhaps through increasing evacuation routes) or hinder (through increased population and possible creation of bottlenecks) efficient evacuation?

6-19 Do I understand right that all ingress and egress for this subdivision is via Grant Avenue, either directly or via connection to the neighborhood served by Walnut? I'm concerned about yet more households trying to get out of Winters by traveling east on Grant Avenue, and the bottleneck at I-505. Has the applicant explored options for this project to have at least emergency options to the north or to the east (e.g., to connect to CR 31, which has an overpass over 505)?

Traffic control, traffic calming

6-20 The DEIR shows a stop light at East Main and Grant Avenue. During the 2010 Complete Streets process and again more recently during Planning Commission meetings about Grocery Outlet, the community was very firm in wanting to minimize use of stoplights and instead use other approaches, such as traffic circles. There are more traffic lights on Grant Avenue now than were envisioned in the Complete Streets process, and adding a light at East Main would create the thicket of traffic lights that the community chose to plan to avoid in 2010.

I request the applicant consider other options for that and other intersections at the edge of, and within, the project.

Pedestrian and bicycle connectivity

6-21 During the scoping process, multiple people requested walkability and bikeability be maximized, both within the project and connecting to the rest of the city. I applaud ideas such as putting a bike path along the ditch/linear open space. The DEIR refers to a "network" of bike trails. I see a few of them on the map, but a true network would have a higher degree of connectivity. I'd like the applicant to explore that more.

6-22 What will the connectivity be for kids getting to school, people doing their shopping or going downtown, or getting to features such as the Winters Putah Creek Nature Park? (Note that there is private property between the Nature Park Extension near PG&E and the rest of the Nature Park.)

Letter 6 Cont.

Getting people to move around on foot, by bicycle, or while using wheelchairs or other adaptive equipment rather than driving decreases vehicle miles traveled, and thereby decreases greenhouse gas production. It also increases the chance for community-building neighborly interactions.

6-23

The Winters Climate Action Commission has been working on a bike map and would be a good resource of conversations about connectivity.

View coming into town

The Grant Avenue corridor sets the tone for Winters for people driving into town from the east. The Farmstead project area takes up a lot of the north side of Grant Avenue in the approach to town. Right now it is ag land, and includes the custom-painted "Welcome to Winters" sign painted by a local artist.

6-24

The Grant Avenue edge of this project will set the flavor for what Winters "feels like" for people entering town from the east. I hope that it will present as a leafy neighborhood with little light pollution, with parking lots well screened, and without using an unbroken barrier wall that smacks of suburban or highway-adjacent urban development. The project can be dense without it feeling like it's crowding Grant Avenue.

6-25

Thank you for your consideration, and of course please let me know if you'd like any clarification.

Sincerely,

Kate

Kate Laddish
Winters, Calif.

LETTER 6: KATE LADDISH

Response to Comment 6-1
The comment consists of an introductory statement and does not address the adequacy of the Draft EIR.

Response to Comment 6-2
As discussed on page 4.6-22 of the Draft EIR, the proposed project would include 329 residential units, which would significantly contribute towards the City's Regional Housing Needs Allocation (RHNA) goals identified in the Housing Element of the City's General Plan. The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-3
The comment does not address the adequacy of the Draft EIR. However, as discussed on page 3-16 of Chapter 3, Project Description of the Draft EIR:

> The 4.4-acre R-4 lot proposed for high-density residences would be dedicated to the City in order to meet the City's affordable housing requirements. As established in Winters Municipal Code Section 17.200.030, notwithstanding the exceptions provided therein, all development projects consisting of five or more residential units within the City must include inclusionary housing units equal to 15 percent of the total number of residential units in the development project, excluding density bonus units. The 15 percent inclusionary housing requirement must consist of six percent very low-income units and nine percent low-income or moderate-income units, in proportion to the unmet needs for each identified group in the 2021-2029 Housing Element Update, which was adopted by the City of Winters on March 15, 2022. In addition, of the total townhome units constructed within the R-3 lot, 10 units would be restricted to moderate-income households.
>
> The proposed project's Affordable Housing Plan would be negotiated with and determined by the City's Affordable Housing Coordinator and reviewed by the Affordable Housing Steering Committee, prior to being taken to the Winters Planning Commission and City Council for approval with the project's other requested entitlements.

Response to Comment 6-4
The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-5
The commenter's concern is not required to be addressed under CEQA analysis. However, any building constructed as part of the proposed project would be designed with Chapter 11B within Title 24 of the CBSC, which specifically outlines detailed accessibility requirements for public buildings, commercial spaces, and public housing. The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-6
The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-7

The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-8

The comment does not address the adequacy of the Draft EIR. Potential impact related to flooding are addressed in Chapter 4.8, Public Services and Utilities, of the Draft EIR. As discussed therein on pages 4.8-27 to 29, the proposed project would include new on-site stormwater facilities to detain and treat stormwater runoff from the site's new impervious surfaces, as well as runoff from adjacent properties. Collected runoff would be released to the project site's new 75-foot drainage channel, which would be located parallel to Timber Crest Road. From the drainage channel, stormwater flows would be conveyed southward by way of a new upsized culvert under SR 128 to the stormwater channel owned by PG&E. The PG&E stormwater channel extends south from SR 128 to a ditch along Interstate 505 (I-505), which flows over a concrete apron, down a steep slope, and into Putah Creek.

Response to Comment 6-9

As stated on pages 45 and 46 of the Initial Study prepared for the proposed project, development of the proposed project would introduce impervious surfaces to the project site, which would alter the existing drainage pattern of the site. However, on-site stormwater runoff would be guided into an on-site bioretention basins for treatment and storage prior to discharge to the City's stormwater system. The proposed stormwater system would be required to maintain peak runoff flows such that they do not exceed pre-project flows. The proposed stormwater management system would be designed in accordance with the City's Improvement Standards and Standard Drawings, and would ensure that water quality in Putah Creek would not be adversely affected. In addition, the Storm Drainage Assessment Technical Memorandum prepared for the proposed project by Wood Rodgers (see Appendix L of the Draft EIR) included the results of a hydraulic analysis which calculated both peak flow and water surface elevations during pre- and post-project conditions. The results of the analysis are presented in Table 1 and Table 2 therein.

Response to Comment 6-10

Impacts related to heat retention due to placement of cement and asphalt, known as the heat island effect, are not required to be evaluated under CEQA and, thus, are not analyzed in the Draft EIR. Nonetheless, the comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-11

See Response to Comment 6-10.

Response to Comment 6-12

See Response to Comment 6-10.

Response to Comment 6-13

As discussed under Impact 4.4-12 within Chapter 4.4, Biological Resources, of the Draft EIR, the installation of on-site trees would be conducted in accordance with Winters Municipal Code Chapter 12.08. All applications to plant, move, remove or replace a tree in the control area shall be referred to the City's tree commission for prior approval. Applications to the tree commission

shall state the number and kind of trees proposed to be moved, removed or replaced, and such other information as the City Manager shall find reasonably necessary to a fair determination of whether or not authority should be issued. The City Manager may require the planting of a new tree as a condition for granting authority to remove a tree. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-14

As discussed on page 3-13 of Chapter 3, Project Description of the Draft EIR, landscaping would be included as part of frontage improvements along SR 128. In addition, as shown within Figure 3-5 of the Draft EIR, planting strips would be included between sidewalks and streets along all major roads within the project site. The comment does not address the adequacy of the Draft EIR. The comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-15

The comment does not address the adequacy of Draft EIR; nonetheless, as stated on page 3-12 of Chapter 3, Project Description, of Draft EIR, the designated park and open space areas will provide opportunities for outdoor recreation and exercise to encourage healthy lifestyles for future residents and adjacent neighborhoods which can attract individuals to such areas. In addition, as discussed on pages 4.8-24 and 25 in Chapter 4.8, Public Services and Utilities, of the Draft EIR, the proposed project would be subject to General Plan Policy V.A.2, which requires all new residential development to dedicate improved parkland or pay equivalent in-lieu fees based on a standard of five acres of improved parkland per 1,000 residents. In addition, and consistent with goals and policies in the General Plan, Chapter 16.08 of the City of Winters Municipal Code requires dedication of land for park or recreational purposes, a fee paid in lieu thereof, or a combination of both. The land areas required for dedication may be up to an amount equivalent to the land necessary to provide five acres of parkland per 1,000 residents of the proposed subdivision. As part of the proposed project, a total of 6.1 acres across three lots (Lots D, E, and F) would be developed by the City of Winters with park uses, with lots ranging in size from 0.8-acre to 3.9 acres, which would exceed the 4.89 acres of parkland needed to meet the City's parkland standard. The City would be responsible for the installation of park facilities, irrigation systems, walkways, hardscaping, trails, lighting, and landscaping within the park lots.

Response to Comment 6-16

As shown on page 3-9, of Chapter 3, Project Description, of the Draft EIR in Figure 3-5, the proposed basin within Lot E would also be developed as a park. The comment does not address the adequacy of the Draft EIR. Nonetheless, the comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-17

As discussed on page 4.8-21 and 4.8-22 within Chapter 4.8, Public Services and Utilities, of the Draft EIR, impacts related to fire protection services would be less than significant. As discussed under Impact 4.8-1, the proposed project would increase the available housing and commercial uses within the City of Winters, which would increase the demand for fire protection services. Winters Fire Department (WFD) collects a development impact fee specific to fire services within the WFD service area. Effective July 1, 2024, the WFD Impact Fee $2,285.02 for each low-density residential unit, $2,086.89 for each medium density residential unit, $2,937.82 for each medium high density residential unit, $1,788.77 for each high-density residential unit, and $1.14 for each

square foot (sf) of neighborhood commercial development. The proposed project would be required to pay applicable development fees for the provision of equipment and staffing required to serve the proposed project.

All structures included in the proposed project would be constructed consistent with Chapter 15.20 of the City's Municipal Code. In compliance with the California Fire Code (CFC) (specifically Section 903.2.1.3, Group A-3), the design of the residences would include the installation and use of automatic fire sprinklers, and fire alarm systems would be incorporated pursuant to CFC requirements. Such features would reduce the potential for fires to occur within the proposed structures, which would reduce the demand for fire protection services from the project site.

Response to Comment 6-18

As discussed on page 4.9-27 in Chapter 4.9, Transportation, of the Draft EIR, the proposed project would include two entry points from SR 128, as well as connection to the existing residential neighborhood to the west by way of an extension of Broadview Lane and a new connection to the approved Walnut Lane 10 subdivision. The streets would be between 40 and 60 feet wide (curb to curb), with the exception of the 76-foot-wide portion of the East Main Street connecting to SR 128. Overall, the proposed roadways would be wide enough to allow for adequate emergency vehicle access.

Furthermore, as discussed under question 'f' in Section IX, Hazards and Hazardous Materials, of the Initial Study prepared for the proposed project, Yolo County defines the project site location as Zone 59 for the Emergency Preparedness Evacuation plan. Zone 59 includes two rally points: 613 Railroad Avenue, which is located just east of the project site, and St. Anthony Church, located further west of the site. The evacuation route is defined as SR 128 just south of the project site. During construction of the proposed project, all construction equipment would be staged on-site to prevent obstruction of local and regional travel routes in the City that could be used as evacuation routes during emergency events, including SR 128. During project operations, the proposed project would not substantially alter existing circulation systems in the surrounding area, and SR 128 would continue to be able to serve as an evacuation route during emergency events.

Response to Comment 6-19

See Response to Comment 6-18. In addition, this comment is related to the functioning of roadway segments and intersections, which is no longer considered an environmental impact under CEQA. In response to Senate Bill (SB) 743, the Governor's Office of Land Use and Climate Innovation (formerly known as the Office of Planning and Research [OPR]) has updated the CEQA Guidelines to include new transportation-related evaluation metrics. In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package along with an updated Technical Advisory related to Evaluating Transportation Impacts in CEQA. Full compliance with the Guidelines became effective July 2020. As a result of SB 743, and Section 15064.3 of the CEQA Guidelines, as discussed in further detail below, local jurisdictions may no longer rely on vehicle level of service (LOS) and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA, and instead a VMT metric should be evaluated.

Response to Comment 6-20

The comment does not address the adequacy of the Draft EIR. Nonetheless, the comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-21

See Response to Comment 4-2. The comment does not address the adequacy of the Draft EIR. Nonetheless, the comment has been noted for the record and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-22

See Response to Comment 4-2.

Response to Comment 6-23

The comment does not address the adequacy of Draft EIR. See Response to Comment 4-2.

Response to Comment 6-24

The comment does not specifically address the adequacy of the Draft EIR. Nonetheless, as discussed under Impact 4.1-3 in Chapter 4.1, Aesthetics, of the Draft EIR, the City of Winters adopted design guidelines in 2011 for the Grant Avenue Business and Commercial District, which includes the stretch of SR 128 that bounds the southern boundary of the project site, as well as an internal portion of the project site. Guidelines are provided for site planning, architecture and building design, connectivity, signs, landscaping, and lighting. Compliance with the design guidelines would be ensured through the City's Design Review process. The comment has been noted and will be forwarded to the decision-makers for their consideration.

Response to Comment 6-25

The comment is a concluding statement and does not address the adequacy of the Draft EIR.

Letter 7

---------- Forwarded message ---------
From: **Carol Scianna** <cosmozz795@gmail.com>
Date: Wed, Oct 23, 2024 at 2:16 PM
Subject: Farmstead DEIR comments
To: Dave Dowswell <dave.dowswell@cityofwinters.org>

Hello Dave
Below please find my comments regarding Farmstead EIR:

7-1 **Sect 3 pg 12**- There is a proposed bike lane on the north side of the park, in order to provide connectivity from the Farmstead community to schools, library etc it would be wonderful to continue this bike lane and expand as a greenbelt on the north side of the new Broadview St heading westto connect with the existing Broadview where a bike lane can be added this will connect to the ped/bike lane on the south edge of Walnut park and faciliate students getting to the schools on north side of Grant Ave/
These improvement will enhance connectivity, reduce VMT and be a wonderful asset to this new development.

7-2 **Sect 4.3 pg 57** There is discussion regarding the installation of rooftop solar with the capacity to provide 100% of the power needed to operate all homes. I want to ensure that solar installed will meet this commitment and commercial buildings should also be required to install solar to the maximum level possible.

7-3 **Sect 4.3 pg 63** No Natural Gas- I am very pleased to see that the homes proposed will be using 100% electricity and not using natural gas. As we move our state towards electrification, there is some gray area language regarding gas infrastructure being provided to commercial kitchens. I think no gas at all is the best choice, however if we need if commercial kitchens will require it that this is a very small exception and bringing natural gas infrastructure into the project will not allow the new homes the choice of gas or electric power.

7-4 **Street Lighting**
The City's Climate Action Committee is reviewing the City lighting standards as it relates to night sky issues and hoping to work with Planning Dept to adjust our standards accordingly. These new standards will not be developed before Farmstead moves forward. We need to have the flexibility to adjust the street lighting installed in this project so that it does a better job of reducing the impact to night sky glare that our more recent developments in the north area of town have created.

Thank you
--
Take care,
Carol Scianna

--
Take care,
Carol

LETTER 7: CAROL SCIANNA

Response to Comment 7-1
See Response to Comment 6-2. The comment has been noted and will be forwarded to the decision-makers for their consideration.

Response to Comment 7-2
As stated on page 4.3-57 of Chapter 4.3, Air Quality, Greenhouse Gas Emissions, and Energy, of the Draft EIR, the residential units would meet 100 percent of their anticipated energy demand through solar panels. The 2022 Building Energy Efficiency Standards also require that newly constructed non-residential buildings, including grocery stores, offices, financial institutions, unleased tenant space, retail space, schools, warehouses, auditoriums, convention centers, hotel/motels, libraries, medical office building/clinics, and theaters, be developed to include a solar photovoltaic (PV) system. Therefore, a portion of the electricity demand associated with development of the proposed project's commercial components would also be met by on-site renewable energy.

Furthermore, State regulations promote the generation of renewable energy and encourage energy efficiency through requirements placed on utility providers and strict development standards. For instance, the State's Renewable Portfolio Standard (RPS) requires utilities, including PG&E and Valley Clean Energy (VCE), to procure an increasing proportion of electricity from renewable sources. Ultimately, the RPS requirements mandate that all electricity produced within the State be renewably sourced by the year 2045.

Response to Comment 7-3
See Response to Comment 4-5.

Response to Comment 7-4
The comment does not address the adequacy of the Draft EIR. Nonetheless as required by Mitigation Measure 4.1-4(a) within Chapter 4.1, Aesthetics, of the Draft EIR, prior to approval of Improvement Plans, the project applicant shall submit a photometric and proposed lighting plan for the project to the City of Winters Community Development Department for review and approval, demonstrating that the proposed lighting will not adversely affect adjacent areas.

3. Revisions to the Draft EIR Text

3. REVISIONS TO THE DRAFT EIR TEXT

3.1 INTRODUCTION

The Revisions to the Draft EIR Text chapter presents minor corrections, additions, and revisions made to the Draft EIR published by the Lead Agency (City of Winters).

The changes represent minor clarifications/amplifications of the analysis contained in the Draft EIR and do not constitute significant new information that, in accordance with CEQA Guidelines, Section 15088.5, would trigger the need to recirculate portions or all of the Draft EIR.

3.2 DESCRIPTION OF CHANGES

New text is double underlined and deleted text is ~~struck through~~. Text changes are presented in the page order in which they appear in the Draft EIR.

2 EXECUTIVE SUMMARY

For clarification purposes, Table 2-1 in Chapter 2, Executive Summary, of the Draft EIR is hereby revised to reflect the revisions made to Mitigation Measure 4.2-1 as part of this Final EIR, as presented below. Rather than include the entirety of Table 2-1 with revisions shown where appropriate, only the impact for which mitigation has been revised is presented in this chapter. The revisions to Table 2-1 are for clarification purposes only and do not change the conclusions of the Draft EIR. Please refer to the end of the Description of Changes section of this chapter for Table 2-1.

4.2 AGRICULTURAL RESOURCES

Page 4.2-9 of Chapter 4.2 Agricultural Resources, of the Draft EIR is hereby revised as follows:

Local Regulations

The following are the local regulations and standards pertinent to the proposed project with respect to agricultural resources.

Yolo County Habitat Conservation Plan and Natural Community Conservation Plan

The Yolo HCP/NCCP, which was adopted in January 2019, is a 50-year regional plan that provides for the conservation of 12 Covered Species and the natural communities and agricultural land on which they depend, while allowing for orderly development in Yolo County consistent with local general plans. The following six local agencies prepared the Yolo HCP/NCCP: the Yolo Habitat Conservancy, County of Yolo, City of Davis, City of West Sacramento, City of Winters, and City of Woodland. The Yolo HCP/NCCP only applies to eligible projects, also known as Covered Activities, undertaken within the Yolo HCP/NCCP plan area, which includes all areas within Yolo County, including the incorporated cities of Davis, West Sacramento, Winters, and Woodland.

The Yolo HCP/NCCP provides the basis for issuance of long-term permits under FESA and the California Natural Community Conservation Planning Act (NCCPA) that cover an

array of public and private activities, including activities that are essential to the ongoing viability of Yolo County's agricultural and urban economies. Specifically, the Yolo HCP/NCCP provides permittees (i.e., Yolo County, the four incorporated cities, and the Yolo Habitat Conservancy) with incidental take permits from both USFWS and CDFW for the 12 Covered Species, pursuant to Section 10(a)(1)(B) of the FESA and Section 2835 of the NCCPA chapter of the CFGC. The Yolo HCP/NCCP ensures compliance with the FESA, NCCPA, and CESA for Covered Activities that may affect Covered Species.

Project applicants are required within the Yolo HCP/NCCP plan area to comply with the applicable Yolo HCP/NNCP Avoidance and Minimization Measures (AMMs) to avoid, minimize, and mitigate the take of Covered Species. Applicants of development projects within the Yolo HCP/NCCP permit area are required to complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an Avoidance/Minimization/Mitigation (AMM) plan, and fees or equivalent mitigation. Payment of the land cover fees will allow the Yolo HCP/NCCP to purchase and preserve an equivalent amount of off-site habitat of equal or greater value as the on-site habitat that would be developed as part of the proposed project. The Yolo Habitat Conservancy charges various types of fees to cover implementation costs, including administration, land acquisition, restoration, and land management costs. Yolo HCP/NCCP applicants can either pay mitigation fees for land cover conversion, or conduct wetland restoration, and/or dedicate land in-lieu of the fees. Wetland restoration and land-in-lieu proposals must be reviewed and approved by the Yolo Habitat Conservancy. If an applicant opts to pay the mitigation fees, the Yolo Habitat Conservancy applies an adopted land cover fee schedule, with additional fees for wetlands. Fees are automatically increased annually, adjusted for inflation. Additionally, every five years, the Yolo Habitat Conservancy completes a fee assessment to review costs, underlying assumptions, and actual costs. After the review, fee schedule adjustments are made, and automatic annual increases resume based off the five-year fee assessment

City of Winters General Plan

The relevant goals and policies from the City's General Plan related to agricultural resources are presented below.

Page 4.2-13 of Chapter 4.2, Agricultural Resources, of the Draft EIR is hereby revised as follows:

Mitigation Measure(s)

Applicants of development projects within the Yolo HCP/NCCP permit area are required to complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an AMM plan, and fees or equivalent mitigation. Payment of the land cover fees will allow the Yolo HCP/NCCP to purchase and preserve an equivalent amount of off-site habitat of equal or greater value as the on-site habitat that would be developed as part of the proposed project. Because equivalent habitat would consist of agricultural lands similar to the project site, payment of Yolo HCP/NCCP fees would mitigate for the loss of on-site habitat and agricultural land.

However, ~~W~~while the following mitigation measure would preserve an equivalent acreage of Farmland elsewhere, the proposed project would result in the conversion of agricultural land to urban uses and would not create new agricultural land; as such, the proposed project would lead to an overall loss of Farmland. Therefore, although implementation of the following mitigation measure would reduce the above potentially significant impact, the impact would remain *significant and unavoidable*.

4.2-1 *Prior to initiation of grading activities ~~for each phase of development at the Farmstead Subdivision Project site~~, the project applicant shall ~~set aside in perpetuity, at a minimum ratio of 1:1 of active agricultural acreage, an amount equal to the current phase. The applicant may choose to set aside in perpetuity an amount equal to the remainder of the project site instead of at each phase. The agricultural land shall be located elsewhere in unincorporated Yolo County, through the purchase of development rights and execution of an irreversible conservation or agricultural easement~~ complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an Avoidance/Minimization/Mitigation (AMM) plan, and fees or equivalent mitigation. Land cover conversion fees shall be applied for the proposed project's land cover impacts, in accordance with Yolo HCP/NCCP guidelines. Proof of compliance with the aforementioned requirements shall be submitted to the City of Winters Community Development Department for review and approval.*

The foregoing minor changes are for clarification purposes only and do not affect the adequacy or conclusions of the environmental analysis contained in the Draft EIR.

4.8 PUBLIC SERVICES AND UTILITIES

Table 4.8-1 and Table 4.8-3 of Chapter 4.8, Public Services and Utilities, of the Draft EIR are hereby revised as follows:

Table 4.8-1
Schools Serving the Project Site

School	Grades	Enrollment	Capacity*
Winters High School	9-12	493	729
Winters Middle School	6-8	340	594
Shirley Rominger School	3-5	346	500
Waggoner Elementary School	TK-2	389	475

* As detailed in the WJUSD Facility Master Plan, the capacity numbers noted herein include use of portable classrooms, which are not intended as long-term facility solutions.

Source: Winters Joint Unified School District. Facility Master Plan. Fall 2023.

Table 4.8-3
Enrollment, Capacity, and Student Generation by School*

School	Existing Enrollment	Students Generated by Project	Project Plus Existing Enrollment	Capacity**
Winters High School	493	35	528	729
Winters Middle School	340	38	378	594
Shirley Rominger School	346	34***	380	500

Table 4.8-3
Enrollment, Capacity, and Student Generation by School*

School	Existing Enrollment	Students Generated by Project	Project Plus Existing Enrollment	Capacity**
Waggoner Elementary School	389	34***	423	475

* Excluding Wolfskill Career Readiness Academy, an alternative education high school on the same campus as Winters High School
** As detailed in the WJUSD Facility Master Plan, the capacity numbers noted herein include use of portable classrooms, which are not intended as long-term facility solutions.
*** Students generated by the proposed project for grades kindergarten through grade five divided in half between Shirley Rominger School and Waggoner Elementary School

Source: Winters Joint Unified School District, Fall 2023.

The foregoing minor changes are for clarification purposes only and do not affect the adequacy or conclusions of the environmental analysis contained in the Draft EIR.

4.9 TRANSPORTATION

Page 4.9-4 of Chapter 4.9, Transportation, of the Draft EIR is hereby revised as follows:

> The Yolo County Transportation District (YCTD) provided public transit service (Yolobus) in the City limits. Currently, the City of Winters was served by the Yolobus ~~YOUR Ride~~ BeeLine on-demand microtransit service, which provides point-to-point rides within the City and to/from the cities of Davis and Vacaville. The service is available Monday through Saturday between 8:30 AM and 4:30 PM.

Page 4.9-22 of Chapter 9, Transportation, of the Draft EIR is hereby revised as follows:

> The City of Winters is served by the Yolobus ~~YOUR Ride~~ BeeLine on-demand microtransit service. The service provides point-to-point rides within the City (including the adjacent El Rio Villa community) and to/from the cities of Davis and Vacaville.

The foregoing minor changes are for clarification purposes only and do not affect the adequacy or conclusions of the environmental analysis contained in Draft EIR.

Table 2-1
Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measures		Level of Significance After Mitigation
4.2 Agricultural Resources					
4.2-1	**Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.**	S	*4.2-1*	*Prior to initiation of grading activities ~~for each phase of development at the Farmstead Subdivision Project site~~, the project applicant shall ~~set aside in perpetuity, at a minimum ratio of 1:1 of active agricultural acreage, an amount equal to the current phase. The applicant may choose to set aside in perpetuity an amount equal to the remainder of the project site instead of at each phase. The agricultural land shall be located elsewhere in unincorporated Yolo County, through the purchase of development rights and execution of an irreversible conservation or agricultural easement~~ complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an Avoidance/Minimization/Mitigation (AMM) plan, and fees or equivalent mitigation. Land cover conversion fees shall be applied for the proposed project's land cover impacts, in accordance with Yolo HCP/NCCP guidelines. Proof of compliance with the aforementioned requirements shall be submitted to the City of Winters Community Development Department for review and approval.*	SU

4. Mitigation Monitoring and Reporting Program

4. MITIGATION MONITORING AND REPORTING PROGRAM

4.1 INTRODUCTION

Section 15097 of the California Environmental Quality Act (CEQA) requires all State and local agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a "mitigated negative declaration" or specified environmental findings related to an EIR.

The following is the Mitigation Monitoring and Reporting Program (MMRP) for the Farmstead Subdivision Project. The intent of the MMRP is to ensure implementation of the mitigation measures identified within the EIR and Initial Study (IS) prepared for the Farmstead Subdivision Project. Unless otherwise noted, the cost of implementing the mitigation measures as prescribed by this MMRP shall be funded by the project applicant.

4.2 COMPLIANCE CHECKLIST

The MMRP contained herein is intended to satisfy the requirements of CEQA as they relate to the EIR for the Farmstead Subdivision Project prepared by the City of Winters. This MMRP is intended to be used by City staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMRP were developed in the EIR and IS that were prepared for the proposed project.

The EIR and IS present a detailed set of mitigation measures that will be implemented throughout the lifetime of the project. Mitigation is defined by CEQA Guidelines, Section 15370, as a measure that:

- Avoids the impact altogether by not taking a certain action or parts of an action;
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project; or
- Compensates for the impact by replacing or providing substitute resources or environments.

The intent of the MMRP is to ensure the implementation of adopted mitigation measures. The MMRP will provide for monitoring of construction activities as necessary and in-the-field identification and resolution of environmental concerns.

Monitoring and documenting the implementation of mitigation measures will be coordinated by the City of Winters. The table in Section 4.3 of this chapter identifies the mitigation measures, the monitoring action for each mitigation measure, the responsible party for the monitoring action, and timing of the monitoring action. The applicant will be responsible for fully understanding and effectively implementing the mitigation measures contained within the MMRP. The City will be responsible for monitoring compliance.

4.3 MITIGATION MONITORING AND REPORTING PROGRAM

The following table indicates the mitigation measure number, the impact the measure is designed to address, the measure text, the monitoring agency, implementation schedule, and an area for sign-off indicating compliance.

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
4.1 Aesthetics					
4.1-4	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	*4.1-4(a) Prior to approval of Improvement Plans, the project applicant shall submit a photometric and proposed lighting plan for the project to the City of Winters Community Development Department for review and approval, demonstrating that the proposed lighting will not adversely affect adjacent areas. The lighting plan shall include, but not necessarily be limited to, the following provisions:* • *Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties;* • *Place and shield or screen flood and area lighting needed for construction activities and/or security so as not to disturb adjacent residential areas and passing motorists; and* • *For public lighting, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, metal halide lamps, or fluorescent bulbs) or that blink or flash.*	City of Winters Community Development Department	Prior to the approval of Improvement Plans	
		4.1-4(b) Prior to approval of building permits, the project applicant shall submit final plans that demonstrate the use of appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage	City of Winters Community Development Department	Prior to the approval of building permits	

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		to prevent light and glare from adversely affecting motorists on nearby roadways. Proof or compliance shall be submitted to the City of Winters Community Development Department for review and approval.			
4.2 Agricultural Resources					
4.2-1	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	*4.2-1 Prior to initiation of grading activities, the project applicant shall complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an Avoidance/Minimization/Mitigation (AMMs) plan, and fees or equivalent mitigation. Land cover conversion fees shall be applied for the proposed project's land cover impacts, in accordance with Yolo HCP/NCCP guidelines. Proof of compliance with the aforementioned requirements shall be submitted to the City of Winters Community Development Department for review and approval.*	City of Winters Community Development Department	Prior to initiation of grading activities for each phase of development	
4.2-3	Involve changes in the existing environment which, due to their location or nature, could cumulatively result in loss of Farmland to non-agricultural use.	*4.2-3 Implement Mitigation Measure 4.2-1.*	See Mitigation Measure 4.2-1	See Mitigation Measure 4.2-1	
4.3 Air Quality, Greenhouse Gas Emissions, and Energy					
4.3-7	Generation of GHG emissions that may have a significant	*4.3-7(a) The following requirements shall be noted on project improvement plans, subject to review*	City of Winters Community Development	Prior to approval of project Improvement Plans	

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
	impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	*and approval by the City of Winters Community Development Department:* • *The proposed project shall be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; and* • *The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces.* *If the use of all-electric for any project component(s) (e.g., an appliance) is not enforceable or commercially feasible at the time of issuance of building permit, the applicant shall be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric. The emissions from the use of natural gas shall be calculated by a qualified professional utilizing YSAQMD, CARB-, or the USEPA-approved emissions models and quantification methods available and submitted to the City for review and approval, which shall include third-party review by a qualified consultant of the City's*	Department		

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		selection and be subject to applicant reimbursement of consultant costs. *Any and all GHG credits to off-set for the use of natural gas must be created through a CARB-approved registry. These registries are currently the ACR, CAR, and Verra, although CARB may accredit additional registries in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. The selected protocol must demonstrate that the GHG-emissions reductions are real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR 95802(a) are provided below.* *(1) Real: GHG reductions or enhancements result from a demonstrable action or set of actions and are quantified using appropriate accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the [GHG credit] project boundary and account for uncertainty and the potential for*			

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		activity-shifting and market-shifting leakage. *(2) Additional: GHG reductions or removals that exceed any GHG reduction, or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario.* *(3) Permanent: GHG reductions and removal enhancements are not reversible or, when GHG reductions and GHG-removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG-emission reductions and GHG-removal enhancements to ensure that all credited reductions endure for at least 100 years.* *(4) Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG-removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the [GHG credit] project boundary, while accounting for uncertainty. activity-shifting, and market-shifting leakage.* *(5) Verifiable: A [GHG credit] project report assertion is well-documented*			

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		and transparent such that it lends itself to an objective review by an accredited verification body. *(6) Enforceable: The authority for CARB to hold a particular party liable and take appropriate action if any of the provisions of this article are violated. Note that this definition of enforceability is specific to the Cap-and-Trade regulation, where CARB holds enforcement authority, but this measure will employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and backed by a legal instrument or contract that defines exclusive ownership.* ***Geographic Prioritization of GHG Credits*** *GHG credits from reduction projects in the City will be prioritized before projects in larger geographies (i.e., northern California, California, United States, and international). The applicant will inform brokers of the required geographic prioritization for the procurement of GHG credits. GHG credits from reduction projects identified in the City that are of equal or lesser cost compared to the settlement price of the latest Cap-and-Trade auction must be included in the*			

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		transaction. GHG credits from reduction projects outside of the City may be purchased if adequate credits cannot be found in the City or if they exceed the maximum price identified above. The economic and geographic analysis undertaken to inform the selection of GHG credits must be provided by the applicant to the City as part of the required documentation discussed below under Plan Implementation and Reporting. ***Types of GHG Credits*** *GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project-generated emissions at any time. GHG credits from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated through a prorated surcharge of additional*			

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		FMUs proportional to the effect of the delay. Because emissions of CO2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10 percent for every year of lag between project emissions and their reduction through a FMU will be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 metric ton of project GHG emissions generated in the year prior to funding and implementation of the FMU). **Verification and Independent Review of GHG Credits** *All GHG credits will be verified by an independent verifier accredited by the ANSI National Accreditation Board (ANAB) or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the accreditation board (i.e., ANAB or CARB), the verifier will certify the following.* • *GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. Verification of the latter requires certification that the credits meet or exceed the standards in 17 CCR 95972.*			

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		• *GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.* • *GHG credits are purchased according to the geographic prioritization standard defined in this measure under Geographic Prioritization of GHG Credits.* *Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that will result from future projects, additional verification must occur beyond initial certification is required. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification will examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. The applicant will retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project.* *4.3-7(b) Implement Mitigation Measure 4.9-2.*	See Mitigation Measure 4.9-2	See Mitigation Measure 4.9-2	

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
4.4 Biological Resources					
4.4-1	Have a substantial adverse effect, either directly or through habitat modifications, on any special-status plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.	*4.4-1* *If construction has not commenced prior to the first day of spring 2026 (March 20, 2026), a new round of special-status plant surveys shall be conducted by a qualified biologist in areas proposed for disturbance, prior to the commencement of construction.* *The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the California Native Plant Society (CNPS) Botanical Survey Guidelines of the California Native Plant Society, and the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The surveys shall be conducted at the appropriate time of year when plants are in bloom. A report summarizing the results of the protocol-level special-status plant surveys shall be submitted for review and approval to the City of Winters Community Development Department.* *If special-status plant species are not found, further mitigation shall not be required. If special-status plants are found within the proposed impact area and they are perennials, such as recurved larkspur, then*	City of Winters Community Development Department	Prior to commencement of construction, if construction has not commended prior to the first day of Spring 2026 (March 20, 2026)	

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		mitigation shall consist of digging up the plants and transplanting them into a suitable mitigation area prior to construction. If the plant found is an annual, such as dwarf downingia or bearded popcornflower, then mitigation shall consist of collecting seed-bearing soil and spreading it into a suitable constructed wetland at a mitigation site. If special-status plants will be impacted, a mitigation plan shall be developed and approved by the City of Winters Community Development Department. Mitigation for the transplantation/establishment of rare plants shall result in no net loss of individual plants after a five-year monitoring period.			
4.4-2	Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle or giant garter snake.	*Northwestern Pond Turtle* *4.4-2(a) <u>Yolo HCP/NCCP AMM14</u>: There are no specific design requirements for western pond turtle habitat, however, project proponents must follow design requirements for the valley foothill riparian and lacustrine and riverine natural communities described in Avoidance/ Minimization/Mitigation (AMMs) 9 and 10, which require a 100-foot (minimum) permanent buffer zone from the canopy drip-line (the farthest edge on the ground where water will drip from the tree canopy, based on the outer boundary of the tree canopy). If modeled upland habitat will be impacted, a qualified biologist must be present and will assess the likelihood of western pond turtle nests occurring in the disturbance area (based on sun exposure, soil conditions, and*	City of Winters Community Development Department Yolo Habitat Conservancy	During ground-disturbing activities	

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		other species habitat requirements). If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, the qualified biologist will monitor all initial ground disturbing activity for nests that may be unearthed during the disturbance, and will move out of harm's way any turtles or hatchlings found.			
		Giant Garter Snake *4.4-2(b) <u>Yolo HCP/NCCP AMM15</u>: The project proponent will avoid effects on areas where planning-level surveys indicate the presence of suitable habitat for giant garter snake. To avoid effects on giant garter snake aquatic habitat, the project proponent will conduct no in-water/in-channel activity and maintain a permanent 200-foot non-disturbance buffer from the outer edge of potentially occupied aquatic habitat. If the project proponent cannot avoid effects of construction activities, the project proponent will implement the measures below to minimize effects of construction projects (measures for maintenance activities are described after the following bulleted list).* • *Conduct preconstruction clearance surveys using USFWS-approved methods within 24 hours prior to construction activities within identified giant garter snake aquatic and*	City of Winters Community Development Department Yolo Habitat Conservancy	Within 24 hours prior to construction activities and during construction activities	

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		adjacent upland habitat. If construction activities stop for a period of two weeks or more, conduct another preconstruction clearance survey within 24 hours prior to resuming construction activity. • *Restrict all construction activity involving disturbance of giant garter snake habitat to the snake's active season, May 1 through October 1. During this period, the potential for direct mortality is reduced because snakes are expected to move and avoid danger.* • *In areas where construction is to take place, encourage giant garter snakes to leave the site on their own by dewatering all irrigation ditches, canals, or other aquatic habitat (i.e., removing giant garter snake aquatic habitat) between April 15 and September 30. Dewatered habitat must remain dry, with no water puddles remaining, for at least 15 consecutive days prior to excavating or filling of the habitat. If a site cannot be completely dewatered, netting and salvage of giant garter snake prey items may be necessary to discourage use by snakes.* • *Provide environmental awareness training for construction personnel, as approved by the Conservancy.*			

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		Training may consist of showing a video prepared by a qualified biologist, or an in-person presentation by a qualified biologist. In addition to the video or in-person presentation, training may be supplemented with the distribution of approved brochures and other materials that describe resources protected under the Yolo HCP/NCCP and methods for avoiding effects. • *A qualified biologist will prepare a giant garter snake relocation plan which must be approved by the Conservancy prior to work in giant garter snake habitat. The qualified biologist will base the relocation plan on criteria provided by CDFW or USFWS, through the Conservancy.* • *If a live giant garter snake is encountered during construction activities, immediately notify the project's biological monitor and USFWS and CDFW. The monitor will stop construction in the vicinity of the snake, monitor the snake, and allow the snake to leave on its own. The monitor will remain in the area for the remainder of the work day to ensure the snake is not harmed or, if it leaves the site, does not return. If the giant garter snake does not leave on its own, the qualified biologist will*			

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		relocate the snake consistent with the relocation plan described above. • *Employ the following management practices to minimize disturbances to habitat:* ○ *Install temporary fencing to identify and protect adjacent marshes, wetlands, and ditches from encroachment from construction equipment and personnel.* ○ *Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted practices. No plastic, monofilament, jute, or similar erosion-control matting that could entangle snakes or other wildlife will be permitted.* *Ongoing maintenance covered activities by local water and flood control agencies typically involve removal of vegetation, debris, and sediment from water conveyance canals as well as resloping, rocking, and stabilizing the canals that serve agricultural water users. Maintenance of these conveyance facilities can typically occur only from mid-January through April when conveyance canals and*			

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		ditches are not in service by the agency, although some drainages are used for storm conveyance during the winter and are wet all year. This timing is during the giant garter snake's inactive period. This is when snakes may be using underground burrows and are most vulnerable to take because they are unable to move out of harm's way. Maintenance activities, therefore, will be limited to the giant garter snake's active season (May 1 to October 1) when possible. All personnel involved in maintenance activities within giant garter snake habitat will first participate in environmental awareness training for giant garter snake, as described above for construction-related activities. To minimize the take of giant garter snake, the local water or flood control agency will limit maintenance of conveyance structures located within modeled giant garter snake habitat (Appendix A, Covered Species Accounts) to clearing one side along at least 80 percent of the linear distance of canals and ditches during each maintenance year (e.g., the left bank of a canal is maintained in the first year and the right bank in the second year). To avoid collapses when resloping canal and ditch banks composed of heavy clay soils, clearing will be limited to one side of the channel during each maintenance year. *For channel maintenance activities conducted within modeled habitat for giant garter snake,*			

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		the project proponent will place removed material in existing dredged sites along channels where prior maintenance dredge disposal has occurred. For portions of channels that do not have previously used spoil disposal sites and where surveys have been conducted to confirm that giant garter snakes are not present, removed materials may be placed along channels in areas that are not occupied by giant garter snake and where materials will not re-enter the canal because of stormwater runoff. *Modifications to this AMM may be made with the approval of the Conservancy, USFWS, and CDFW.*			
4.4-3	Have a substantial adverse effect, either directly or through habitat modifications, on tricolored blackbird.	*4.4-3* *Yolo HCP/NCCP AMM21: The project proponent will retain a qualified biologist to identify and quantify (in acres) tricolored blackbird nesting and foraging habitat (as defined in Appendix A, Covered Species Accounts) within 1,300 feet of the footprint of the covered activity. If a 1,300-foot buffer from nesting habitat cannot be maintained, the qualified biologist will check records maintained by the Conservancy (which will include CNDDB data, and data from the tricolored blackbird portal) to determine if tricolored blackbird nesting colonies have been active in or within 1,300 feet of the project footprint during the previous five years. If there are no records of nesting tricolored blackbirds on the site, the qualified biologist*	City of Winters Community Development Department Yolo Habitat Conservancy	Prior to the initiation of construction activities	

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		will conduct visual surveys to determine if an active colony is present, during the period from March 1 to July 30, consistent with protocol described by Kelsey (2008). *Operations and maintenance activities or other temporary activities that do not remove nesting habitat and occur outside the nesting season (March 1 to July 30) do not need to conduct planning or construction surveys or implement any additional avoidance measures.* *If an active tricolored blackbird colony is present or has been present within the last five years within the planning-level survey area, the project proponent will design the project to avoid adverse effects within 1,300 feet of the colony site(s), unless a shorter distance is approved by the Conservancy, USFWS, and CDFW. If a shorter distance is approved, the project proponent will still maintain a 1,300-foot buffer around active nesting colonies during the nesting season but may apply the approved lesser distance outside the nesting season. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.*			
4.4-4	Have a substantial adverse effect, either directly or through habitat modifications,	*4.4-4* *Yolo HCP/NCCP AMM18: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify western burrowing owl habitat (as defined in*	City of Winters Community Development Department	Prior to any ground disturbance related to covered activities	

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	on burrowing owl.	*Appendix A, Covered Species Accounts) within or adjacent to (i.e., within 500 feet of) a covered activity. If habitat for this species is present, additional surveys for the species by a qualified biologist are required, consistent with CDFW guidelines (Appendix L).* *If burrowing owls are identified during the planning-level survey, the project proponent will minimize activities that will affect occupied habitat as follows. Occupied habitat is considered fully avoided if the project footprint does not impinge on a nondisturbance buffer around the suitable burrow. For occupied burrowing owl nest burrows, this nondisturbance buffer could range from 150 to 1,500 feet (Table 4-2, Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls [incorporated as Table 4.4-2 of this chapter]), depending on the time of year and the level of disturbance, based on current guidelines (California Department of Fish and Game 2012). The Yolo HCP/NCCP generally defines low, medium, and high levels of disturbances of burrowing owls as follows.* • *<u>Low</u>: Typically 71-80 dB, generally characterized by the presence of passenger vehicles, small gas-powered engines (e.g., lawn mowers, small chain saws, portable*	Yolo Habitat Conservancy		

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		generators), and high-tension power lines. Includes electric • *Moderate: Typically 81-90 dB, and would include medium- and large-sized construction equipment, such as backhoes, front end loaders, large pumps and generators, road graders, dozers, dump trucks, drill rigs, and other moderate to large diesel engines. Also includes power saws, large chainsaws, pneumatic drills and impact wrenches, and large gasoline-powered tools. Construction activities would normally fall under this category.* • *High: Typically 91-100 dB, and is generally characterized by impacting devices, jackhammers, compression ("jake") brakes on large trucks, and trains. This category includes both vibratory and impact pile drivers (smaller steel or wood piles) such as used to install piles and guard rails, and large pneumatic tools such as chipping machines. It may also include large diesel and gasoline engines, especially if in concert with other impacting devices. Felling of large trees (defined as dominant or subdominant trees in mature forests), truck horns, yarding tower whistles, and muffled or underground explosives are also included. Very*			

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few covered activities are expected to fall under this category, but some construction activities may result in this level of disturbance.

Table 4.4.2
Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls

	Level of Disturbance (feet) from Occupied Burrows		
Time of Year	**Low**	**Medium**	**High**
April 1-August 15	600	1,500	1,500
August 16-October 15	600	600	1,500
October 16-March 31	150	300	1,500

Source: Yolo Habitat Conservancy. Yolo County Habitat Conservation Plan/Natural Community Conservation Plan [Table 4-2]. April 2018.

The project proponent may qualify for a reduced buffer size, based on existing vegetation, human development, and land use, if agreed upon by CDFW and USFWS

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		(California Department of Fish and Game 2012). *If the project does not fully avoid direct and indirect effects on nesting sites (i.e., if the project cannot adhere to the buffers described above), the project proponent will retain a qualified biologist to conduct preconstruction surveys and document the presence or absence of western burrowing owls that could be affected by the covered activity. Prior to any ground disturbance related to covered activities, the qualified biologist will conduct the preconstruction surveys within three days prior to ground disturbance in areas identified in the planning-level surveys as having suitable burrowing owl burrows, consistent with CDFW preconstruction survey guidelines (Appendix L, Take Avoidance Surveys). The qualified biologist will conduct the preconstruction surveys three days prior to ground disturbance. Time lapses between ground disturbing activities will trigger subsequent surveys prior to ground disturbance.* *If the biologist finds the site to be occupied by western burrowing owls during the breeding season (February 1 to August 31), the project proponent will avoid all nest sites, based on the buffer distances described above, during the remainder of the breeding season or while the nest is occupied by adults or young*			

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		(occupation includes individuals or family groups that forage on or near the site following fledging). Occupancy of burrowing owl habitat during preconstruction surveys is confirmed at a site when at least one burrowing owl or sign (fresh whitewash, fresh pellets, feathers, or nest ornamentation) is observed at or near a burrow entrance. Construction may occur inside of the disturbance buffer during the breeding season if the nest is not disturbed and the project proponent develops an AMM plan that is approved by the Conservancy, CDFW, and USFWS prior to project construction, based on the following criteria: • *The Conservancy, CDFW, and USFWS approves the AMM plan provided by the project proponent.* • *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).* • *The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.* • *If the qualified biologist identifies a change in owl nesting and foraging behavior as a result of construction activities, the qualified biologist will have the authority to stop all*			

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		construction related activities within the non- disturbance buffer. Construction cannot resume within the buffer until the adults and juveniles from the occupied burrows have moved out of the project site, and the Conservancy, CDFW, and USFWS agree. • *If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the project proponent may remove the nondisturbance buffer, only with concurrence from CDFW and USFWS. If the burrow cannot be avoided by construction activity, the biologist will excavate and collapse the burrow in accordance with CDFW's 2012 guidelines to prevent reoccupation after receiving approval from the wildlife agencies.* *If evidence of western burrowing owl is detected outside the breeding season (December 1 to January 31), the project proponent will establish a non-disturbance buffer around occupied burrows, consistent with Table 4-2 (incorporated as Table 4.4-2 of this chapter), as determined by a qualified biologist. Construction activities within the disturbance buffer are allowed if the following criteria are met to prevent owls from abandoning important overwintering sites:*			

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		• *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).* • *The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.* • *If there is any change in owl roosting and foraging behavior as a result of construction activities, these activities will cease within the buffer.* • *If the owls are gone for at least one week, the project proponent may request approval from the Conservancy, CDFW, and USFWS for a qualified biologist to excavate and collapse usable burrows to prevent owls from reoccupying the site if the burrow cannot be avoided by construction activities. The qualified biologist will install one-way doors for a 48-hour period prior to collapsing any potentially occupied burrows. After all usable burrows are excavated, the buffer will be removed and construction may continue.* *Monitoring must continue as described above for the nonbreeding season as long as the burrow remains active.*			

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		A qualified biologist will monitor the site, consistent with the requirements described above, to ensure that buffers are enforced and owls are not disturbed. Passive relocation (i.e., exclusion) of owls has been used in the past in the Plan Area to remove and exclude owls from active burrows during the nonbreeding season (Trulio 1995). Exclusion and burrow closure will not be conducted during the breeding season for any occupied burrow. If the Conservancy determines that passive relocation is necessary, the project proponent will develop a burrowing owl exclusion plan in consultation with CDFW biologists. The methods will be designed as described in the species monitoring guidelines (California Department of Fish and Game 2012) and consistent with the most up-to-date checklist of passive relocation techniques12. This may include the installation of one-way doors in burrow entrances by a qualified biologist during the nonbreeding season. These doors will be in place for 48 hours and monitored twice daily to ensure that the owls have left the burrow, after which time the biologist will collapse the burrow to prevent reoccupation. Burrows will be excavated using hand tools. During excavation, an escape route will be maintained at all times. This may include inserting an artificial structure, such as piping, into the burrow to prevent collapsing until the entire burrow can			

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			be excavated and it can be determined that no owls are trapped inside the burrow. The Conservancy may allow other methods of passive or active relocation, based on best available science, if approved by the wildlife agencies. Artificial burrows will be constructed prior to exclusion and will be created less than 300 feet from the existing burrows on lands that are protected as part of the reserve system.			
4.5-5	Have a substantial adverse effect, either directly or through habitat modifications, on Swainson's hawk or white-tailed kite.	*4.4-5*	*Yolo HCP/NCCP AMM16: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify any nesting habitat present within 1,320 feet of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.* *If a construction project cannot avoid potential nest trees (as determined by the qualified biologist) by 1,320 feet, the project proponent will retain a qualified biologist to conduct preconstruction surveys for active nests consistent, with guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000), between March 15 and August 30, within 15 days prior to the beginning of the construction activity. The results of the survey will be submitted to the Conservancy and CDFW. If active nests are found during preconstruction surveys, a 1,320-foot initial temporary nest disturbance*	City of Winters Community Development Department Yolo Habitat Conservancy	Within 15 days prior to the beginning of construction activities	

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		buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. Up to 20 Swainson's hawk nest trees (documented nesting within the last 5 years) may be removed during the permit term, but they must be removed when not occupied by Swainson's hawks. *For covered activities that involve pruning or removal of a potential Swainson's hawk or white-tailed kite nest tree, the project proponent will conduct preconstruction surveys that are consistent with the guidelines provided by the Swainson's Hawk Technical*			

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			Advisory Committee (2000). If active nests are found during preconstruction surveys, no tree pruning or removal of the nest tree will occur during the period between March 1 and August 30 within 1,320 feet of an active nest, unless a qualified biologist determines that the young have fledged and the nest is no longer active.			
4.4-6	Have a substantial adverse effect, either directly or through habitat modifications, on other nesting birds and raptors protected under the MBTA and CFGC, including northern harrier.	*4.4-6*	*The removal of any buildings, trees, or shrubs shall occur from September 1 through December 15, outside of the avian nesting season. If removal of buildings, trees, or shrubs occurs, or construction begins between February 1 and August 31 (nesting season for passerine or non-passerine land birds) or between December 15 and August 31 (nesting season for raptors), a nesting bird survey shall be performed by a qualified ornithologist throughout the project site and all accessible areas within a 500-foot radius of proposed construction areas, at most, 14 days prior to the removal or disturbance of a potential nesting structure, tree, or shrub, or the initiation of other construction activities. During this survey, a qualified biologist shall inspect all potential nesting habitat (trees, shrubs, structures, grasslands, etc.) for nests in and immediately adjacent to the impact areas. If a break in construction activity of more than 14 days occurs, then subsequent surveys shall be conducted. A report of the survey findings shall be provided to the City of Winters Community Development*	City of Winters Community Development Department California Department of Fish and Wildlife	Within 14 days prior to the initiation of construction activities	

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		Department and CDFG within 30 days of the completed survey and is valid for one construction season. If nests are not found, further mitigation is not required. *If active raptor nests are found, construction activities shall not take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot non-disturbance buffer shall be established. The non-disturbance buffers may be reduced if a smaller, sufficiently protective buffer is approved by the City after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, the nest occupants' habituation to existing or ongoing activity, and nest concealment (i.e., whether visual or acoustic barriers occur between the proposed activity and the nest). A qualified biologist may visit the nest, as needed, to determine when the young have fledged the nest and are independent of the site or the nest can be left undisturbed until the end of the nesting season.* *If the nest buffer is reduced but construction activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest in a way that would be considered a result of construction activities, then the exclusionary buffer shall be increased such that activities*			

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		are far enough from the nest to stop the agitated behavior. The revised non-disturbance buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the City. *Construction activities may only resume within the non-disturbance buffer after a follow-up survey by the biologist has been conducted and a report has been prepared indicating that the nest (or nests) are not active any longer, and that new nests have not been identified.*			
4.4-7	Have a substantial adverse effect, either directly or through habitat modifications, on special-status roosting bats.	*4.4-7 Prior to the commencement of construction activities, a qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees within the proposed impact footprint and within the project vicinity. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. The results of the assessment shall be submitted for review and approval to the City of Winters Community Development Department.* • *If potential roosting habitat is identified (cavities in trees) within the areas proposed for impact, the biologist shall survey the potential roosting habitat during the active season (generally April through October or from January through*	City of Winters Community Development Department	Prior to the commencement of construction activities	

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		March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys shall be conducted using methods that are considered acceptable by bat experts after consultation with CDFW. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof. • *If roosting bats are identified within any of the trees planned for removal, or if presence is assumed, the trees shall be removed outside of pup season, only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree.* • *Additionally, all other tree removal shall be conducted from January through March on days with temperatures in excess of 50 degrees*			

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		Fahrenheit to avoid potential impacts to foliage-roosting bat species. • *If roosting bats are identified within any trees planned for removal, a bat exclusion plan shall be prepared by a qualified bat biologist describing the methods to be used to humanely exclude bats prior to disturbance. The plan shall be submitted for review and approval to the City of Winters Community Development Department after consultation with CDFW and shall be implemented prior to the start of construction.* • *The requirements for the bat expert and City to consult with CDFW prior to approving survey methods and a bat exclusion plan shall be satisfied either where CDFW responds to requests for consultation within 30 days of the requests or where the bat expert and City have attempted to consult with CDFW but CDFW has failed to respond to the request within 30 days of the placement of the request.*			
4.4-8	Have a substantial adverse effect, either directly or through habitat modifications, on American badger	*4.4-8 Within 48 hours prior to the commencement of construction, a preconstruction survey for American badger shall be conducted by a qualified biologist. A report summarizing the results of the preconstruction survey shall be submitted for review and approval to the City of Winters Community Development*	City of Winters Community Development Department	Within 48 hours prior to the commencement of construction	

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			Department. If American badger or burrows with American badger are found on-site during the preconstruction survey, consultation with CDFW shall occur prior to the initiation of any construction activities, to determine an appropriate burrow excavation and/or relocation method. If American badger is not found, further mitigation shall not be required.			
4.4-10	Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	*4.4-10*	*Prior to the commencement of ground-disturbing activities, the project applicant shall apply to the Central Valley Regional Water Quality Control Board (RWQCB) for a Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements for Projects Involving Discharge of Dredged and/or Fill Material to Waters of the State. Written verification of the Section 401 permit shall be submitted to the City of Winters Community Development Department. The project applicant shall be responsible for conducting all project activities in accordance with the permit provisions outlined therein.*	City of Winters Community Development Department RWQCB	Prior to the commencement of ground-disturbing activities	
4.4-12	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	*4.4-12*	*Pursuant to Winters Municipal Code Section 12.08.010, prior to the removal of any trees as part of the proposed project, the project applicant shall submit an application for review and approval to the City of Winters Tree Commission. Authority to remove trees shall be at the discretion of the City Manager, pursuant to the action taken by the Tree Commission. The application shall state the number and type of trees proposed to be*	City of Winters Tree Commission City of Winters City Manager	Prior to the removal of any trees as part of the proposed project	

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Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		removed or replaced, and other pertinent information as the City Manager finds reasonably necessary to make a fair determination of whether or not authority for tree removal shall be issued.			
4.4-13	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.	*4.4-13(a) <u>Yolo HCP/NCCP AMM3</u>: Where natural communities and covered species habitat are present, workers will confine land clearing to the minimum area necessary to facilitate construction activities. Workers will restrict movement of heavy equipment to and from the project site to established roadways to minimize natural community and covered species habitat disturbance. The project proponent will clearly identify boundaries of work areas using temporary fencing or equivalent and will identify areas designated as environmentally sensitive. All construction vehicles, other equipment, and personnel will avoid these designated areas.* *4.4-13(b) <u>Yolo HCP/NCCP AMM4</u>: To prevent injury and mortality of giant garter snake, western pond turtle, and California tiger salamander [It should be noted that California tiger salamander would not be potentially impacted by the proposed project], workers will cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during non-working hours. The construction contractor will inspect open*	City of Winters Community Development Department Yolo Habitat Conservancy City of Winters Community Development Department Yolo Habitat Conservancy	During construction activities During implementation of covered activities that affect habitat for Giant Garter snake, Western Pond turtle, and California Tiger salamander.	

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		trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.			
		4.4-13(c) Yolo HCP/NCCP AMM5: Workers will minimize the spread of dust from work sites to natural communities or covered species habitats on adjacent lands.	City of Winters Community Development Department Yolo Habitat Conservancy	During implementation of covered activities	
		4.4-13(d) Yolo HCP/NCCP AMM6: All construction personnel will participate in a worker environmental training program approved/authorized by the Conservancy and administered by a qualified biologist. The training will provide education regarding sensitive natural communities and covered species and their habitats, the need to avoid adverse effects, state and federal protection, and the legal implications of violating the FESA and NCCPA Permits. A pre-recorded video presentation by a qualified biologist shown to construction personnel may fulfill the training requirement.	City of Winters Community Development Department Yolo Habitat Conservancy	Prior to initiation of covered activities	
		4.4-13(e) Yolo HCP/NCCP AMM7: Workers will direct all lights for nighttime lighting of project construction sites into the project construction area and minimize the lighting of natural	City of Winters Community Development Department Yolo Habitat	During implementation of covered activities at night	

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Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		habitat areas adjacent to the project construction area.	Conservancy		
		4.4-13(f) <u>Yolo HCP/NCCP AMM8</u>: Project proponents should locate construction staging and other temporary work areas for covered activities in areas that will ultimately be a part of the permanent project development footprint. If construction staging and other temporary work areas must be located outside of permanent project footprints, they will be located either in areas that do not support habitat for covered species or are easily restored to prior or improved ecological functions (e.g., grassland and agricultural land). Construction staging and other temporary work areas located outside of project footprints will be sited in areas that avoid adverse effects on the following: • *Serpentine, valley oak woodland, alkali prairie, vernal pool complex, valley foothill riparian, and fresh emergent wetland land cover types.* • *Occupied western burrowing owl burrows.* • *Nest sites for covered bird species and all raptors, including noncovered raptors, during the breeding season.* *Project proponents will follow specific Avoidance/ Minimization/ Mitigation (AMMs) for sensitive natural communities (Section*	City of Winters Community Development Department Yolo Habitat Conservancy	During implementation of covered activities. Within one year following removal of land cover.	

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
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		4.3.3, Sensitive Natural Communities) and covered species (Section 4.3.4, Covered Species) in temporary staging and work areas. For establishment of temporary work areas outside of the project footprint, project proponents will conduct surveys to determine if any of the biological resources listed above are present. *Within one year following removal of land cover, project proponents will restore temporary work and staging areas to a condition equal to or greater than the covered species habitat function of the affected habitat. Restoration of vegetation in temporary work and staging areas will use clean, native seed mixes approved by the Conservancy that are free of noxious plant species seeds.* *4.4-13(g) To ensure avoidance and minimization of impacts to the species covered by the Yolo HCP/NCCP, which could be impacted by the project, the project applicant shall obtain coverage under the Yolo HCP/NCCP for on-site, and as may be determined necessary by Yolo Habitat Conservancy, for off-site infrastructure work, for each phase of development. In addition to payment of any applicable HCP/NCCP fees, the applicant shall implement Yolo HCP/NCCP Avoidance/Minimization/Mitigation (AMMs) identified in Mitigation Measures 4.4-2(a) and 4.4-2(b), 4.4-3, 4.4-4, and 4.4-5.*	City of Winters Community Development Department Yolo Habitat Conservancy	Prior to initiation of covered activities	

MITIGATION MONITORING AND REPORTING PROGRAM Farmstead Subdivision Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
4.5 Cultural and Tribal Cultural Resources					
4.5-2	Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries.	*4.5-2* *The following requirements shall be included via notation on all project grading plans prior to the issuance of grading permits, to the satisfaction of the City of Winters Community Development Department.* *In the event subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, shall be retained by the applicant to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:* • *If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and agency notifications are not required.* • *If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City and applicable landowner. The*	City of Winters Community Development Department Yolo County Coroner Native American Heritage Commission	Prior to the issuance of grading permits	

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		project applicant shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Work shall not resume within the no-work radius until the applicant, through consultation as appropriate and concurrence with the City, determines that the site either: 1) is not a historical resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to the City's satisfaction. • *If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Yolo County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 shall be implemented. If the Coroner determines the remains are Native American and not the result of a crime*			

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		scene, the Coroner shall notify the NAHC, which then shall designate a Native American Most Likely Descendant (MLD) for the proposed project (Section 5097.98 of the PRC). The designated MLD shall have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC shall mediate (Section 5097.94 of the PRC). If an agreement is not reached, the landowner shall rebury the remains where they shall not be further disturbed (Section 5097.98 of the PRC). The burial shall also include either recording the site with the NAHC or the appropriate information center, using an open space or conservation zoning designation or easement, or recording a reinternment document with Yolo County (AB 2641). Work shall not resume within the no-work radius until the City, through consultation as appropriate, determines that the treatment measures have been completed to their satisfaction.			
4.5-3	Cause a substantial adverse change in the	*4.5-3 Prior to ground disturbance activities, the project proponent shall prepare a Tribal*	City of Winters Community	Prior to ground disturbances	

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	significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a a California Native American Tribe, and that is: listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or a resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to	*Cultural Resources Monitoring Plan for City approval that includes the following components:* • *Awareness Training – The scope, format, and timing of delivery of a contractor awareness training program to inform equipment operators and their supervisors of the procedures required by the Monitoring Plan, which includes, at a minimum, annual training for all personnel involved in project implementation. The program shall include relevant information regarding sensitive tribal cultural laws and regulations. The program shall describe appropriate avoidance and minimization measure (as described in the executed Monitoring Plan) for resources that have the potential to be located on the project site and shall outline specific actions and contacts should any potential archeological resources or artifacts be encountered. The program shall also underscore the requirement for confidentiality and culturally-appropriate treatment of any finds of significance to Native American peoples and for behavior consistent with Native American Tribal values. A copy of the contractor awareness*	Development Department	activities	

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	be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.	*training program materials and written verification of completion of the training program shall be submitted to the City of Winters Community Development Department.* • *Compliance with Applicable Laws – The Monitoring Plan shall describe applicable laws and regulations relevant to potential cultural resource finds, including specific procedures to ensure compliance during implementation.* • *Reporting By Phase – The applicant shall file a written report to the City within 30 days of completion of monitoring for each monitoring phase. The report shall document compliance with the terms of the Monitoring Agreement and shall report on the nature and disposition of any cultural resource discoveries. Applicable requirements for confidentiality shall be observed in these reports.* • *Treatment and Disposition of Cultural Items and Remains – Detailed unanticipated discovery procedures for cultural resources, unique archaeological resources, tribal cultural resources, or human remains that includes consultation with the City to ensure that any discoveries are treated in accordance with*			

MITIGATION MONITORING AND REPORTING PROGRAM
Farmstead Subdivision Project

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		applicable state law before work can resume at the discovery location. • *Other Procedures and Requirements – Timing and procedures for other relevant actions necessary to implement the Monitoring Plan.*			
4.5-4	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	*4.5-4 Prior to the issuance of grading permits, the following language shall be included via notation on the grading plans, subject to review and approval by the City of Winters Community Development Department:* *"Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The City of Winters Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when preceding work has occurred.*	City of Winters Community Development Department	Prior to the issuance of grading permits	
4.9 Transportation					
4.9-1	Conflict with a program, plan, ordinance, or	*4.9-1(a) Prior to issuance of grading permits, the project applicant shall obtain an encroachment*	City of Winters Community	Prior to issuance of grading permit	

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	policy addressing the circulation system including pedestrian, bicycle, and transit facilities.	*permit from the California Department of Transportation (Caltrans) for all proposed improvements within the State Route (SR) 128 right-of-way (ROW). As part of obtaining an encroachment permit, the project applicant shall apply through the Caltrans Encroachment Permit System and submit a copy of the final improvement plans as part of the application package, showing the location and specifications of the proposed improvements to SR 128. The proposed improvements shown on the improvement plans, which shall also be subject to review and approval by the City Engineer as meeting the applicable standards of the City of Winters Design Guidelines, shall include, but not be limited to, the following:* *1) At the SR 128 (East Grant Avenue)/East Main Street intersection, installation of a traffic signal, marked crosswalks, bike lane conflict markings, and bicycle intersection crossing markings. The traffic signal shall provide temporal separation between bicyclists, pedestrians, and conflicting vehicular movements (e.g., through the provision of pedestrian crossing phases). This improvement shall be completed during Phase 1 of the proposed project, prior to construction of the 160th dwelling unit. This*	Development Department City Engineer		

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		improvement is included as a citywide improvement project in the City's Traffic Impact Fee program and shall be reimbursed through the requisite impact fee to the City's fee program. Additionally, should either of the two properties bordering the future traffic signal develop in advance of the proposed project, the properties shall reimburse the proposed project for their fair share of the signal. *2) At the western project site boundary, contribution of a fair share towards the construction of a roundabout with marked crosswalks and physical separation between bicyclists and vehicles. The roundabout shall reduce approach speeds for vehicular traffic and enable crossing pedestrians to negotiate conflicting vehicular traffic, one direction at a time (i.e., through the provision of pedestrian refuge areas/splitter islands). This improvement is included as a citywide improvement project in the City's Traffic Impact Fee program. Accordingly, payment of the requisite impact fee to the City's fee program shall fulfill the project's mitigation obligation for this improvement.* *3) Construction of new bicycle facilities on SR 128 according to standards set*			

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		forth in the Caltrans Highway Design Manual. The required Class I shared-use path on the northern edge of SR 128, along the project site's southern boundary, shall include a minimum paved width of eight feet, plus two-foot shoulders of unobstructed all-weather surface on each side of the path. The provision of the proposed 12-foot paved path shall also satisfy the applicable Caltrans design requirements. The design of the bicycle facilities shall be submitted to Caltrans and the City of Winters for review and approval. *4) Improvements of equal effectiveness as determined by the City Engineer.* *Written verification of the encroachment permit shall be submitted to the City of Winters Community Development Department. The project applicant shall conduct all project activities in accordance with the permit provisions outlined therein.*			
4.9-2	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	*4.9-2 Prior to issuance of the first building permit in the first phase of development, the applicant shall, to the extent feasible, implement transportation demand management (TDM) strategies to reduce the number of vehicle trips that would be generated by both the residential and commercial components of the project. The TDM program shall be submitted to the City Public Works Department for review and*	City Public Works Department	Prior to issuance of the first building permit in the first phase of development	

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		approval. Potential TDM strategies range from site design characteristics to on-going parking management and commute travel programs. The California Air Pollution Control Officers Association (CAPCOA) Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity identifies numerous TDM strategies and quantifies their potential vehicle trip reduction effects. Potential strategies that could be applicable to the project include: 1. *Increase residential density;* 2. *Increase job density;* 3. *Provide transit-oriented development;* 4. *Implement commute trip reduction program;* 5. *Implement commute trip reduction marketing;* 6. *Provide ridesharing program;* 7. *Provide end-of-trip bicycle facilities;* 8. *Limit residential parking supply;* 9. *Unbundle residential parking costs from property costs;* 10. *Improve street connectivity;* 11. *Construct or improve bike boulevard;* 12. *Implement carshare program; and/or* 13. *Implement community-based travel planning.*			
Initial Study					
VII-a.iii, a.iv,c,d.	Directly or indirectly cause potential substantial adverse	*VII-1* *Prior to issuance of grading permits, a design-level Geotechnical Engineering Investigation shall be prepared in order to evaluate the*	City Engineer	Prior to issuance of grading permits	

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	effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction or Landslides. Be located on geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994) creating substantial direct or indirect risks to life or property?	*proposed project's potential effects related to geologic hazards, including, but not limited to, expansive soils, liquefaction, and subsidence/settlement. The City Engineer shall verify that all geotechnical recommendations specified in the design-level Geotechnical Engineering Investigation prepared for the project are properly incorporated in the project design.*			
IX-b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions	*IX-1. Prior to initiation of ground-disturbing activities associated, the project applicant shall complete testing of on-site soils and groundwater. The testing shall be tested for organochlorine pesticides (OCPs) in accordance with U.S. Environmental*	City of Winters Community Development Department	Prior to initiation of ground-disturbing activities associated	

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	involving the likely release of hazardous materials into the environment?	*Protection Agency (USEPA) Method 8081A. Soil determined to be non-hazardous through analytical testing shall be transported and disposed of at a permitted Class II non-hazardous facility with established Waste Discharge Requirements (WDRs) with the Central Valley Regional Water Quality Control Board (RWQCB). Groundwater determined to be non-hazardous through analytical testing shall be transported and disposed of at a permitted non-hazardous treatment facility. Non-hazardous waste shall be transported to disposal under a non-hazardous waste manifest.* *In the event that soil and groundwater are determined to be hazardous by exceeding the USEPA Regional Screening Level for residential exposure scenarios, the soil and/or groundwater shall be transported and disposed of at a Class I facility permitted by the California Department of Toxic Substances Control. Hazardous waste shall be transported to disposal by a licensed hazardous waste hauler under a uniform hazardous waste manifest.* *The results of soil and/or groundwater sampling and analysis, as well as verification of proper remediation and disposal, shall be submitted to the City's Community Development Department for review and approval.*			

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		IX-2. *Prior to Improvement Plan approval, the project applicant shall contract a licensed geologist with the State of California to complete a site reconnaissance for any on-site wells. In the event on-site wells are not identified, no further mitigation shall be required. If an on-site well is identified, the project applicant shall hire a licensed well contractor to obtain a well abandonment permit from the Yolo County Environmental Health Division (YCEHD) for all on-site wells and properly abandon the on-site wells, pursuant to Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III). Verification of abandonment shall be submitted for review and approval to the City's Community Development Department.*	City of Winters Community Development Department	Prior to Improvement Plan Approval	
X-c., X-d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: Impede or redirect flood flows? In flood hazard, tsunami, or seiche	*X-1.* *Prior to occupancy, the project applicant shall ensure that the conditions specified in the Federal Emergency Management Agency (FEMA) Conditional Letter of Map Revision have been met and a Final Letter of Map Revision issued by FEMA. Evidence thereof shall be submitted to the City's Community Development Department for review and approval.*	City of Winters Community Development Department FEMA	Prior to occupancy	

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	zones, risk release of pollutants due to project inundation?				

PLANNING COMMISSION RESOLUTION NO. 2025-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THAT THE CITY COUNCIL APPROVE A GENERAL PLAN AMENDMENT TO THE GENERAL PLAN LAND USE DESIGNATION FOR 33.7 ACRES OF LOW DENSITY RESIDENTIAL (LR), 13.5 ACRES OF OPEN SPACE (OS) AND 14.7 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) TO 23.3 ACRES OF LOW DENSITY (LR), 16.1 ACRES OF MEDIUM DENSITY RESIDENTIAL (MR), 5.7 ACRES OF MEDIUM HIGH DENSITY RESIDENTIAL (MHR), 4.4 ACRES OF HIGH DENSITY RESIDENTIAL (HR), 3.3 ACRES OF NEIGHBORHOOD COMMERCIAL (NC) AND 9.1 ACRES OF OPEN SPACE (OS) FOR A 61.9 ACRE PARCEL FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)

WHEREAS, the City of Winters ("City") General Plan was adopted on May 19, 1992, by City Council Resolution No. 1992-13; and

WHEREAS, all General Plan Housing Element updates must be prepared in accordance with the provisions set forth in Section 65583 et seq. of the Government Code; and

WHEREAS, on May 11, 2022, the California Department of Housing and Community Development (HCD) found that the City prepared (and adopted) its 6th Cycle (2021-2029) Housing Element ("Housing Element") in substantial compliance with California's Housing Element Law (Article 10.6 of Chapter 3 of Division 1 of Title 7 of the Government Code); and

WHEREAS, the "Certified" Housing Element contained several Implementation Programs that required action on the part of the City related to the ability of the City to provide adequate sites for all economic segments of the community; and

WHEREAS, Policy II.A.3 of the General Plan provides that the City shall maintain an adequate supply of residential land in appropriate land use designations and zoning categories to accommodate Winters' fair share of projected regional growth and normal residential vacancy rates; and

WHEREAS, Implementation Program II.3 of the Housing Element requires the City to rezone a minimum of 4.25 acres to accommodate the Regional Housing Needs Allocation ("RHNA") of 70 units for lower income households; and

WHEREAS, the property owner of the real property of 61.9 acres located on the north side of the intersection of SR 128/East Grant Avenue and East Main Street and commonly known by the address 29500 Russell Blvd., Winters, California, identified as Yolo County Assessor's Parcel Number 038-050-018-000 and referred to as the Farmstead Property ("Subject Property"), desires the Subject Property have a new General Plan designation and be rezoned in order for the City to implement Policy II.A.3 of the General Plan and Program II.3 of the City's Housing Element; and

WHEREAS, a General Plan Amendment is necessary in order to rezone the Subject Property in order to implement Policy II.A.3 of the General Plan and Policy II.3 of the City's Housing Element; and

WHEREAS, a notice of a public hearing scheduled for June 24, 2025 for the General Plan amendment to be considered by the Winters Planning Commission was published in the *Winters Express* on June 4, 2025 in accordance with Government Code sections 65353 and 65090; and

WHEREAS, notice was mailed to property owners within 300 feet of the project location on June 10, 2025; and

WHEREAS, the June 24, 2025 hearing was continued to a regular meeting of the Planning Commission on July 22, 2025; and

WHEREAS, on July 22, 2025, the Planning Division staff presented its oral and written staff report on the Farmstead Subdivision Project ("Project") and the General Plan Amendment, the Planning Commission held a public hearing on the Project and General Plan Amendment to receive oral and written testimony and written correspondence, and at the conclusion of the discussion, after receiving public comment, the Planning Commission continued the public hearing to a special meeting on August 12, 2025, and gave staff/applicant direction on the items that needed to be addressed; and

WHEREAS, on August 12, 2025, at a special meeting, the Planning Commission proceeded with a continued public hearing on the Project and General Plan Amendment and received an updated staff report addressing those items requested by the Planning Commission; and

WHEREAS, the Planning Division staff recommends approval of the proposed General Plan Amendment based on the findings provided in Exhibit A attached hereto and incorporated herein.

NOW, THEREFORE BE IT RESOLVED that the Planning Commission of the City of Winters recommends that the City Council approve a General Plan Amendment to the General Plan land use designations for the Subject Property, from 33.7 acres of Low Density Residential (LR), 13.5 acres of Open Space (OS) and 14.7 acres of Neighborhood Commercial (NC) as depicted in Exhibit B, attached hereto and incorporated herein by this reference, to 23.3 acres of Low Density Residential (LR), 16.1 acres of Medium Density Residential (MR), 5.7 acres of Medium High Density Residential (MHR), 4.4 acres of High Density Residential (HR), 3.3 acres of Neighborhood Commercial (NC) and 9.1 acres of Open Space (OS), as depicted in Exhibit C, attached hereto and incorporated herein by this reference.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Winters, based on the evidence in the record and findings set forth in Exhibit A,

determines the General Plan Amendment to be consistent with the Final Environmental Impact Report that was prepared for the Project.

IT IS HEREBY CERTIFIED that the foregoing Planning Commission Resolution No. 2025-xx was duly adopted on a motion by Commissioner _____ and seconded by Commissioner _____, at a special meeting of the City of Winters Planning Commission held on the 12th day of August 2025, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Lisa Baker, Chairperson

_____
Jeremy Craig, Planning Commission Secretary

Planning Commission Resolution No. 2025 – 0X
Exhibit "A"

General Plan Amendment Findings

1) Public Welfare. Approval of the General Plan Amendment will not create conditions materially detrimental to the public health, safety and general welfare. This finding can be made as the Subject Property will be developed with commercial uses or residential uses and include open space, consistent with the current list of allowable uses for the Subject Property. The proposed amendments to the land use designations on the Subject Property will allow for the development of medium, medium high, and high density residential units.

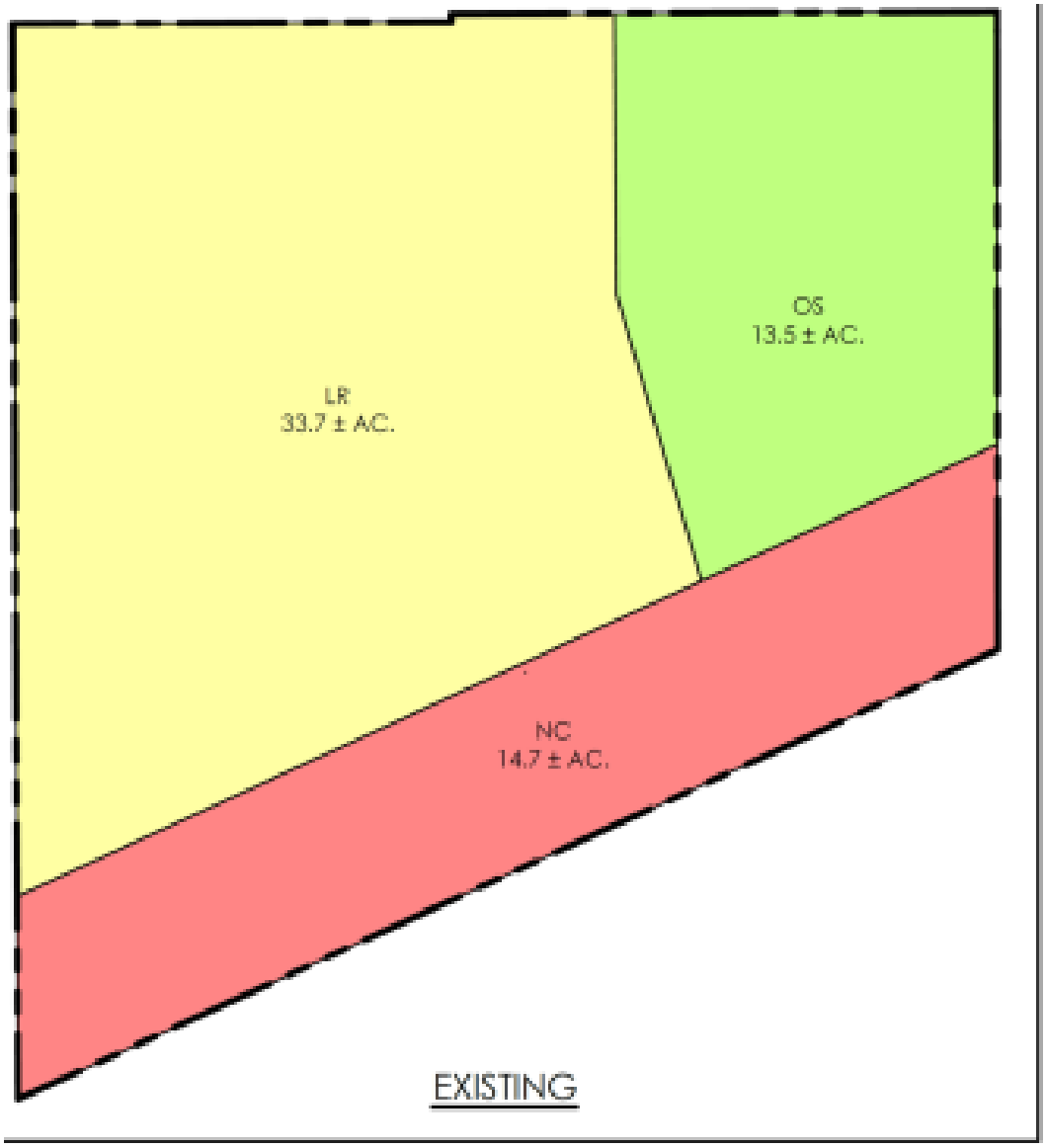
2) Internal General Plan Consistency. The amendment is internally consistent with those goals, objectives, and policies of the General Plan which are not being amended. This finding can be made as the Subject Property already has similar General Plan land use designations. The amendment is consistent with Policy II.A.3 of the General Plan, which provides that the City shall maintain an adequate supply of residential land in appropriate land use designations and zoning categories to accommodate Winters' fair share of projected regional growth and normal residential vacancy rates.

3) Land Use Compatibility. In the case of amendments to the General Plan land use map, the new designations are compatible with the designations on nearby properties. This finding can be made as nearby properties are commercial and residential in nature.

4) Property Suitability. In the case of amendments to the General Plan land use map, the new designation is suitable for the location, access, visual character and topography of the Subject Property. This finding can be made as the proposed and use designations is very similar to the land use designations.

Exhibit “B”

Existing General Plan Land Use Map

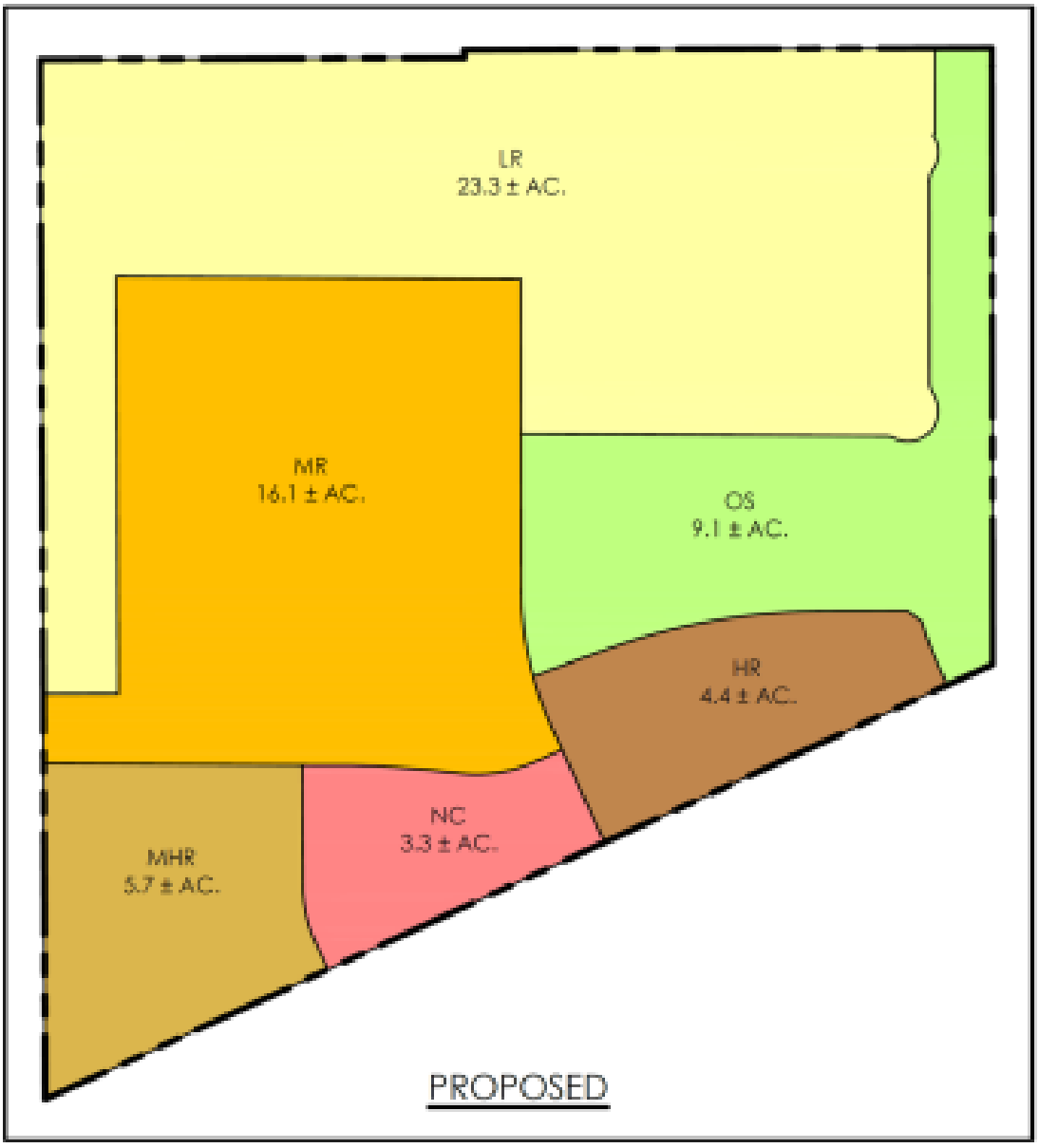


SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
LR	LOW DENSITY RESIDENTIAL	33.7	23.3	-10.4
MR	MEDIUM DENSITY RESIDENTIAL	0	16.1	16.1
MHR	MEDIUM HIGH DENSITY RESIDENTIAL	0	5.7	5.7
HR	HIGH DENSITY RESIDENTIAL	0.0	4.4	4.4
NC	NEIGHBORHOOD COMMERCIAL	14.7	3.3	-11.4
OS	OPEN SPACE	13.5	9.1	-4.4
TOTAL		**61.9**	**61.9**	**0.0**

Exhibit “C”

Proposed General Plan Land Use Map



SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
LR	LOW DENSITY RESIDENTIAL	33.7	23.3	-10.4
MR	MEDIUM DENSITY RESIDENTIAL	0	16.1	16.1
MHR	MEDIUM HIGH DENSITY RESIDENTIAL	0	5.7	5.7
HR	HIGH DENSITY RESIDENTIAL	0.0	4.4	4.4
NC	NEIGHBORHOOD COMMERCIAL	14.7	3.3	-11.4
OS	OPEN SPACE	13.5	9.1	-4.4
TOTAL		**61.9**	**61.9**	**0.0**

PLANNING COMMISSION RESOLUTION 2025-xx

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE AN ORDINANCE AMENDING THE ZONING CLASSIFICATIONS OF 33.7 ACRES OF SINGLE FAMILY RESIDENTIAL, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 13.5 ACRES OF PUBLIC OPEN SPACE (O-S) ZONE AND 14.7 ACRES OF NEIGHBORHOOD COMMERCIAL (C-1) ZONE TO 23.3 ACRES OF SINGLE FAMILY RESIDENTIAL, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 16.1 ACRES OF SINGLE FAMILY RESIDENTIAL, 6,000 SQ. FT. AVG. MIN. (R-2-PD) ZONE, 5.7 ACRES OF MULTIFAMILY RESIDENTIAL (R-3) ZONE, 4.4 ACRES OF R-4 HIGH DENSITY MULTIFAMILY RESIDENTIAL (R-4) ZONE, 3.3 ACRES OF NEIGHBORHOOD COMMERCIAL (C-1) ZONE, AND 9.1 ACRES OF PUBLIC OPEN SPACE (O-S) ZONE, AND ADDING A PLANNED DEVELOPMENT (PD) OVERLAY ZONE TO, AND APPROVING, A PD PERMIT FOR SAID 16.1 ACRES OF THE R-2 ZONE FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)

WHEREAS, the City of Winters ("City") General Plan was adopted on May 19, 1992, by City Council Resolution No. 1992-13; and

WHEREAS, all General Plan Housing Element updates must be prepared in accordance with the provisions set forth in Section 65583 et seq. of the Government Code; and

WHEREAS, on May 11, 2022, the California Department of Housing and Community Development (HCD) found that the City prepared (and adopted) its 6th Cycle (2021-2029) Housing Element ("Housing Element") in substantial compliance with California's Housing Element Law (Article 10.6 of Chapter 3 of Division 1 of Title of the Government Code); and

WHEREAS, the "certified" Housing Element contained several Implementation Programs that required action on the part of the City related to the ability of the City to provide adequate sites for all economic segments of the community; and

WHEREAS, Policy II.A.3 of the General Plan provides that the City shall maintain an adequate supply of residential land in appropriate land use designations and zoning categories to accommodate Winters' fair share of projected regional growth and normal residential vacancy rates; and

WHEREAS, Implementation Program II.3 of the Housing Element requires the City to rezone a minimum of 4.25 acres to accommodate the Regional Housing Needs Allocation ("RHNA") of 70 units for lower income households; and

WHEREAS, the property owner of the real property of 61.9 acres located on the north side of the intersection of SR 128/East Grant Avenue and East Main Street and

commonly known by the address 29500 Russell Blvd., Winters, California, identified as Yolo County Assessor's Parcel Number 038-050-018-000 and referred to as the Farmstead Property ("Subject Property"), desires the Subject Property have a new General Plan designation and be rezoned in order for the City to implement Policy II.A.3 of the General Plan and Program II.3 of the City's Housing Element; and

WHEREAS, the aforementioned rezoning of 4.4 acres to High Density Multifamily Residential (R-4) will allow the addition of higher density residential uses at a minimum of 10.1 dwelling units per acre up to a maximum of 20 dwelling units per acre, in addition to allowing expanded commercial uses and multi-family units at or above ground level; and

WHEREAS, the aforementioned rezoning of the 61.9 acres of the Subject Property is consistent with the General Plan, the General Plan Land Use Amendments being considered for the Farmstead Subdivision Project ("Project") and the purposes of Chapter 17.48 (Planned Development Overlay Zone) of the Winters Municipal Code; and

WHEREAS, a notice of a public hearing scheduled for June 24, 2025 for the proposed rezoning to be considered by the Winters Planning Commission was published in the *Winters Express* on June 4, 2025 in accordance with Government Code sections 65854 and 65090; and

WHEREAS, notice was mailed to property owners within 300 feet of the Project location on June 10, 2025; and

WHEREAS, the June 24, 2025, the Planning Commission hearing was continued to a regular meeting of the Planning Commission on July 22, 2025; and; and

WHEREAS, on July 22, 2025, the Planning Division staff presented its oral and written staff report on the Project and the rezoning, and the Planning Commission held a public hearing on the Project and amendment to receive oral and written testimony and written correspondence; and

WHEREAS, at the conclusion of the discussion, after receiving public comment, the Planning Commission continued the public hearing to a special meeting on August 12, 2025, and gave staff/applicant direction on the items that needed to be addressed; and

WHEREAS, on August 12, 2025, at a special meeting, the Planning Commission proceeded with a public hearing on the Project and amendment and received an updated staff report addressing those items requested by the Planning Commission; and

WHEREAS, the Planning Division staff recommends approval of the proposed rezoning of the Subject Property based on the findings provided in Exhibit A attached hereto and incorporated herein; and

NOW, THEREFORE, **BE IT RESOLVED** that the City Council of the City of Winters does ordain as follows:

Section 1. Recitals. The recitals set forth above are true and correct and are incorporated as though fully set forth herein.

Section 2. Recommendation. The Planning Commission of the City of Winters recommends that the City Council approve a Zoning Amendment to the Subject Property, to amend the of 33.7 acres of Single Family Residential, 7,000 sq. ft. avg. min. (R-1), 13.5 acres of Public Open Space (O-S) and 14.7 acres of Neighborhood Commercial (C-1) for the Subject Property, to 23.3 acres of Single Family Residential, 7,000 sq. ft. avg. min (R-1), 16.1 acres of Single Family Residential, 6,000 sq. ft. avg. min. with a planned development overlay (R-2-PD), 5.7 acres of Multifamily Residential (R-3), 4.4 acres of High Density Multifamily Residential (R-4), 3.3 acres of Neighborhood Commercial (C-1) and 9.1 acres of Public Open Space (O-S), as described in Attachment A attached hereto and incorporated herein. The Planning Commission further recommends that a Planned Development (PD) Overlay zone be added to 16.1 acres of Single Family Residential, 6,000 sq. ft. avg. min. to make it a R-2-PD zone that allows lots that are a minimum of 5,000 square feet, have reduced front side and rear yard setbacks, and increased lot/site coverage as described in Attachment 1.

I HEREBY CERTIFY that the foregoing Resolution was adopted by the Planning Commission at a regular meeting held on the 12th day of August 2025, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____

Lisa Baker, Planning Commission Chair

_____

Jeremy Craig, Planning Commission Secretary

ATTACHMENT A

ORDINANCE OF THE CITY COUNCIL OF THE CITY OF WINTERS AMENDING THE ZONING CLASSIFICATIONS OF 33.7 ACRES OF SINGLE FAMILY RESIDENTIAL, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 13.5 ACRES OF PUBLIC OPEN SPACE (O-S) ZONE AND 14.7 ACRES OF NEIGHBORHOOD COMMERCIAL (C-1) ZONE TO 23.3 ACRES OF SINGLE FAMILY RESIDENTIAL, 7,000 SQ. FT. AVG. MIN. (R-1) ZONE, 16.1 ACRES OF SINGLE FAMILY RESIDENTIAL, 6,000 SQ. FT. AVG. MIN. (R-2-PD) ZONE, 5.7 ACRES OF MULTIFAMILY RESIDENTIAL (R-3) ZONE, 4.4 ACRES OF R-4 HIGH DENSITY MULTIFAMILY RESIDENTIAL (R-4) ZONE, 3.3 ACRES OF NEIGHBORHOOD COMMERCIAL (C-1) ZONE, AND 9.1 ACRES OF PUBLIC OPEN SPACE (O-S) ZONE, AND ADDING A PLANNED DEVELOPMENT (PD) OVERLAY ZONE TO, AND APPROVING, A PD PERMIT FOR SAID 16.1 ACRES OF THE R-2 ZONE FOR THE PROPERTY LOCATED AT 29500 RUSSELL BLVD. (APN:038-050-018-000)

WHEREAS, the City of Winters ("City") General Plan was adopted on May 19, 1992, by City Council Resolution No. 1992-13; and

WHEREAS, all General Plan Housing Element updates must be prepared in accordance with the provisions set forth in Section 65583 et seq. of the Government Code; and

WHEREAS, on May 11, 2022, the California Department of Housing and Community Development (HCD) found that the City prepared (and adopted) its 6th Cycle (2021-2029) Housing Element ("Housing Element") in substantial compliance with California's Housing Element Law (Article 10.6 of Chapter 3 of Division 1 of Title of the Government Code); and

WHEREAS, the "certified" Housing Element contained several Implementation Programs that required action on the part of the City related to the ability of the City to provide adequate sites for all economic segments of the community; and

WHEREAS, Policy II.A.3 of the General Plan provides that the City shall maintain an adequate supply of residential land in appropriate land use designations and zoning categories to accommodate Winters' fair share of projected regional growth and normal residential vacancy rates; and

WHEREAS, Implementation Program II.3 of the Housing Element requires the City to rezone a minimum of 4.25 acres to accommodate the Regional Housing Needs Allocation ("RHNA") of 70 units for lower income households; and

WHEREAS, the property owner of the real property of 61.9 acres located on the north side of the intersection of SR 128/East Grant Avenue and East Main Street and

commonly known by the address 29500 Russell Blvd., Winters, California, identified as Yolo County Assessor's Parcel Number 038-050-018-000 and referred to as the Farmstead Property ("Subject Property"), desires the Subject Property have a new General Plan designation and be rezoned in order for the City to implement Policy II.A.3 of the General Plan and Program II.3 of the City's Housing Element; and

WHEREAS, the aforementioned rezoning of 4.4 acres to High Density Multifamily Residential (R-4) will allow the addition of higher density residential uses at a minimum of 10.1 dwelling units per acre up to a maximum of 20 dwelling units per acre, in addition to allowing expanded commercial uses and multi-family units at or above ground level; and

WHEREAS, the aforementioned rezoning of the 61.9 acres of the Subject Property is consistent with the General Plan, the General Plan Land Use Amendments being considered for the Farmstead Subdivision Project ("Project") and the purposes of Chapter 17.48 (Planned Development Overlay Zone) of the Winters Municipal Code; and

WHEREAS, a notice of a public hearing scheduled for June 24, 2025 for the proposed rezoning to be considered by the Winters Planning Commission was published in the *Winters Express* on June 4, 2025 in accordance with Government Code sections 65854 and 65090; and

WHEREAS, notice was mailed to property owners within 300 feet of the Project location on June 10, 2025; and

WHEREAS, the June 24, 2025, the Planning Commission hearing was continued to a regular meeting of the Planning Commission on July 22, 2025; and; and

WHEREAS, on July 22, 2025, the Planning Division staff presented its oral and written staff report on the Project and the rezoning, and the Planning Commission held a public hearing on the Project and amendment to receive oral and written testimony and written correspondence; and

WHEREAS, at the conclusion of the discussion, after receiving public comment, the Planning Commission continued the public hearing to a special meeting on August 12, 2025, and gave staff/applicant direction on the items that needed to be addressed; and

WHEREAS, on August 12, 2025, at a special meeting, the Planning Commission proceeded with a public hearing on the Project and amendment and received an updated staff report addressing those items requested by the Planning Commission; and

WHEREAS, the Planning Commission voted _____ to recommend the City Council approve the proposed Ordinance; and

WHEREAS, this public hearing before the City Council was duly noticed; and

WHEREAS, on _____, 2025, the Planning Division staff presented its oral and written staff report on the Project and the rezoning, and the City Council held a public hearing on the Project and amendment to receive oral and written testimony and written correspondence.

NOW, THEREFORE, **BE IT RESOLVED** that the City Council of the City of Winters does ordain as follows:

Section 1. Recitals. The recitals set forth above are true and correct and are incorporated as though fully set forth herein.

Section 2. Amendment. The existing zoning classifications of 33.7 acres of Single Family Residential, 7,000 sq. ft. avg. min. (R-1), 13.5 acres of Public Open Space (O-S) and 14.7 acres of Neighborhood Commercial (C-1) for the Subject Property, as depicted in Exhibit B, are hereby amended to 23.3 acres of Single Family Residential, 7,000 sq. ft. avg. min (R-1), 16.1 acres of Single Family Residential, 6,000 sq. ft. avg. min. with a planned development overlay (R-2-PD), 5.7 acres of Multifamily Residential (R-3), 4.4 acres of High Density Multifamily Residential (R-4), 3.3 acres of Neighborhood Commercial (C-1) and 9.1 acres of Public Open Space (O-S), as depicted in Exhibit C attached hereto and incorporated herein by this reference.

Section 3. Amendment. A Planned Development (PD) Overlay zone is being added to 16.1 acres of Single Family Residential, 6,000 sq. ft. avg. min. to make it a R-2-PD zone (consistent with Section 2) that allows lots that are a minimum of 5,000 square feet, have reduced front side and rear yard setbacks, and increased lot/site coverage as described in Exhibit D attached hereto and incorporated herein by this reference.

Section 4. CEQA. The City Council finds that the rezoning is consistent with the Final Environmental Impact Report prepared for the Farmstead Subdivision Project. No further environmental review is necessary for the project under the California Environmental Quality Act (CEQA).

Section 5. Severability. Should any provision of this Ordinance, or its application to any person or circumstance, be determined by a court of competent jurisdiction to be unlawful, unenforceable, or otherwise void, that determination shall have no effect on any other provision of this Ordinance or the application of this Ordinance to any other person or circumstance and, to that end, the provisions hereof are severable.

Section 6. Effective Date & Publication. This Ordinance shall become effective thirty (30) days from and after its passage and adoption and shall be published in accordance with Government Code section 36933.

Introduced on the ____ day of _____, 2025, and **Passed and Adopted** by the City Council of the City of Winters on this _____ day of _____, 2025, by the following vote:

Ayes:
Noes:
Absent:
Abstain:

City of Winters

_____
Albert Vallecillo, Mayor

Attest:

_____
Jeremy Craig, City Clerk

Exhibit "A"

Ordinance 2025-xx
Rezoning and PD Overlay Findings

The proposed amendments to rezone the Subject Property and add a PD overlay to 16.1 acres of Single Family Residential, 6,000 sq. ft. avg. min. (R-2) as described in Sections 2 and 3 of the Ordinance are consistent with the General Plan, the General Plan land use designations and meet the following findings for a zoning amendment and PD Overlay Zone under Winters Municipal Code sections 17.28.050 and 17.48.060, as follows:

A. The rezoning and PD overlay proposed is consistent with the General Plan. This finding can be made as the General Plan map is being amended concurrently with the proposed rezoning and PD Overlay and will therefore be consistent with the General Plan. In addition, the rezoning and PD Overlay are consistent with Policy II.A.3 of the General Plan, which provides that the City shall maintain an adequate supply of residential land in appropriate land use designations and zoning categories to accommodate Winters' fair share of projected regional growth and normal residential vacancy rates; and

B. The rezoning and PD Overlay are necessary to achieve an improved design for the Project and/or the environment. This finding can be made as the rezoning and PD Overlay for the Subject Property will allow the City to accommodate the number of housing units assigned to them by the RHNA through the development of the Project.

C. The rezoning and PD Overlay are essential or desirable to the public comfort and convenience. This finding can be made as the new land use designations will provide additional housing, including affordable housing, and commercial development.

D. The public health and general welfare warrant the change of zones and the PD Overlay will not impair the integrity or character of the neighborhood nor be detrimental to the public health, safety or general welfare. This Finding can be made as the new zoning designations are consistent with Policy II.A.3 of the General Plan, which provides that the City shall maintain an adequate supply of residential land in appropriate

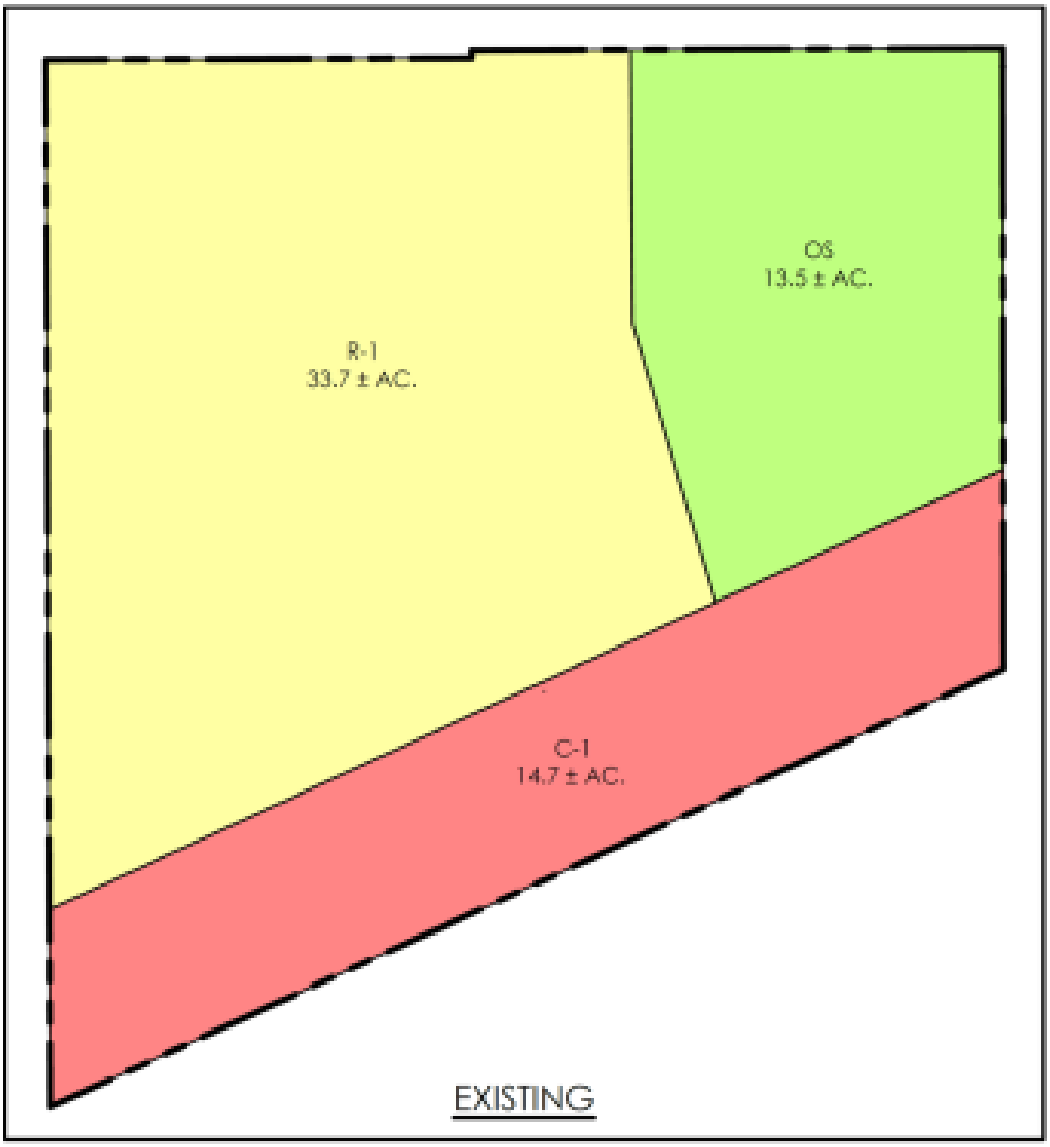
land use designations and zoning categories to accommodate Winters' fair share of projected regional growth and normal residential vacancy rates; and consistent with Implementation Policy Program II.3 of the Housing Element requires the City to rezone a minimum of 4.25 acres to accommodate the RHNA of 70 units for lower income households. The PD Overlay to 16.1 acres of Single Family Residential, 6,000 sq. ft. avg. min. (R-2) will not impair the integrity or character of the neighborhood, which will include medium density residential lots, nor be detrimental to the public health, safety or general welfare.

E. Adequate utilities, access roads, sanitation and/or other necessary facilities and services will be provided or available; This finding can be made as the site is located on a major arterial to the City where urban infrastructure exists.

F. The development will not create an adverse fiscal impact for the city in providing necessary services. This finding can be made as the Subject Property will be developed by property owners who will pay their fair-share of development impact fees to provide necessary services.

Exhibit "B"

Existing Zoning Map



SUMMARY TABLE

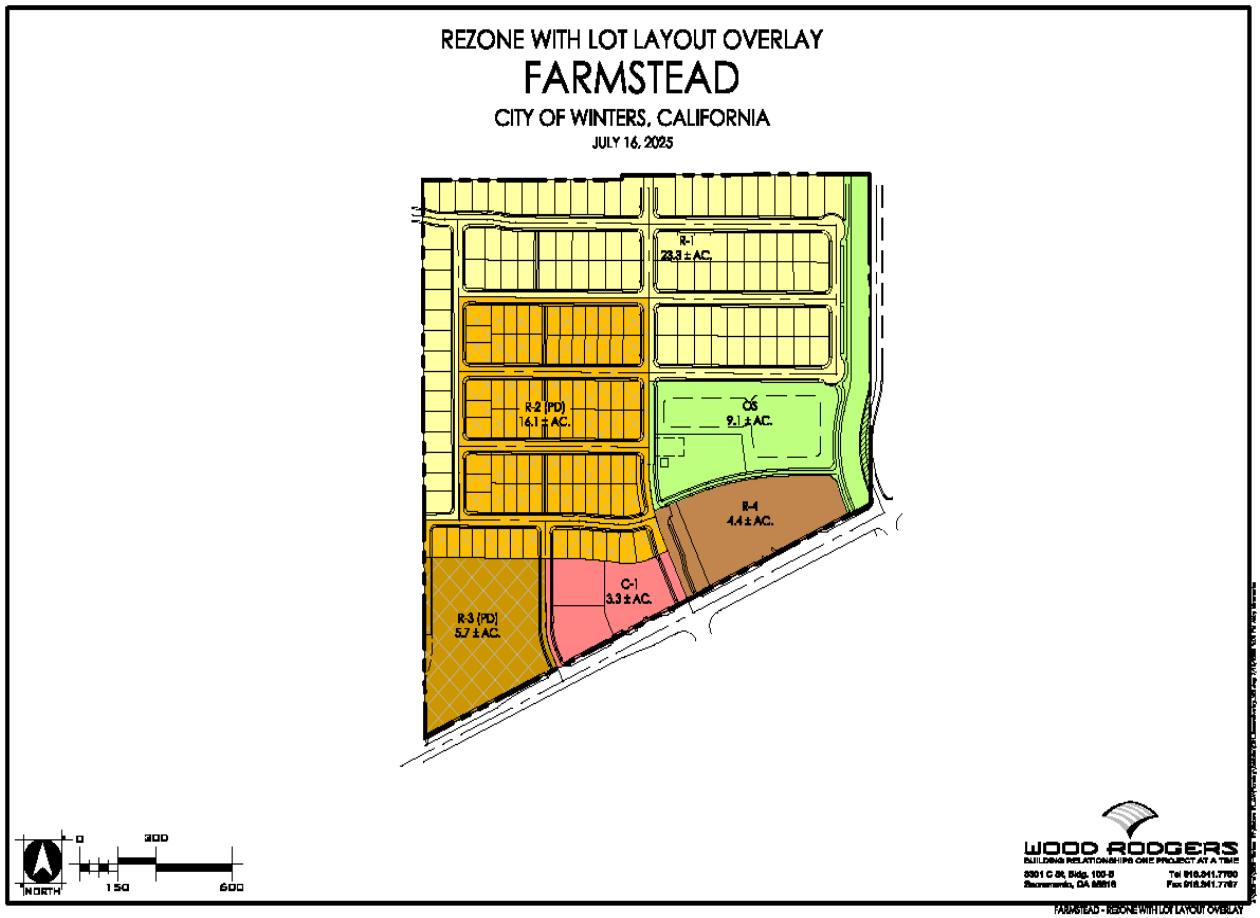
ZONING DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
R-1	SINGLE FAMILY RESIDENTIAL (7,000 sf min.)*	33.7	23.3	-10.4
R-2	MEDIUM DENSITY RESIDENTIAL	0	16.1	16.1
R-3	MEDIUM HIGH DENSITY RESIDENTIAL	0	5.7	5.7
R-4	HIGH DENSITY MULTI-FAMILY RESIDENTIAL	0	4.4	4.4
C-1	NEIGHBORHOOD COMMERCIAL	14.7	3.3	-11.4
OS	OPEN SPACE	13.5	9.1	-4.4
TOTAL		**61.9**	**61.9**	**0.0**

ZONING DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
PD	PLANNED DEVELOPMENT OVERLAY	0	16.1	16.1

*NOTE: PD OVERLAY ALLOWS REDUCTION OF AVERAGE LOT SIZE IN R-2 OF 6,000 SF.

Exhibit “C”

Proposed Zoning Map



SUMMARY TABLE

ZONING DESIGNATION		LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
	R-1	SINGLE FAMILY RESIDENTIAL (7,000 sf min.)*	33.7	23.3	-10.4
	R-2	MEDIUM DENSITY RESIDENTIAL	0	16.1	16.1
	R-3	MEDIUM HIGH DENSITY RESIDENTIAL	0	5.7	5.7
	R-4	HIGH DENSITY MULTI-FAMILY RESIDENTIAL	0	4.4	4.4
	C-1	NEIGHBORHOOD COMMERCIAL	14.7	3.3	-11.4
	OS	OPEN SPACE	13.5	9.1	-4.4
TOTAL			61.9	61.9	0.0

ZONING DESIGNATION		LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
	PD	PLANNED DEVELOPMENT OVERLAY	0	16.1	16.1

*NOTE: PD OVERLAY ALLOWS REDUCTION OF AVERAGE LOT SIZE IN R-2 OF 6,000 SF.

Exhibit "D"

Planned Development (PD) Overlay Permit No. 2025-01

Single Family Residential, 6,000 sq. ft. avg. min. with a planned development overlay (R-2-PD)

Term: Unlimited term, consistent with the concurrently approved Tentative Map No. 5174, pursuant to the requirements of Section 17.48.050 of the Winters Municipal Code and subject to compliance with the conditions of approval for Tentative Map No. 5174 and the Project.

Lot Size:

Minimum 50' x 100'

Setbacks:

Front: To the house/porch, fifteen feet (15') instead of twenty feet (20') feet. Twenty feet (20') to the front of the garage from back of sidewalk.

Rear: Fifteen feet (15') for single-story, twenty feet (20') for two-story homes. A rear yard setback of seven feet (7') for a patio cover with a maximum coverage of thirty percent (30%) of a rear yard.

Side yard, Interior Lots: Five feet (5').

Side yard, Corner Lots: Five feet (5') interior side yard, ten feet (10') street side yard.

Lot/Site Coverage:

Maximum Lot/Site Coverage: fifty-six percent (56%) instead of fifty percent (50%) for single-story homes, and fifty-two percent (52%) instead of forty-five percent (45%) for two-story homes.

PLANNING COMMISSION RESOLUTION NO. 2025-XX

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WINTERS RECOMMENDING THE CITY COUNCIL APPROVE TENTATIVE MAP NO. 5174, THE DEVELOPMENT AGREEMENT, THE AFFORDABLE HOUSING PLAN FOR THE FARMSTEAD SUBDIVISION PROJECT LOCATED AT 29500 RUSSELL BLVD. (APN: 038-050-018-000)

WHEREAS, a notice of a public hearing scheduled for June 24, 2025 for the Tentative Map, Development Agreement and Affordable Housing Plan for the property located on 61.9 acres located on the north side of the intersection of SR 128/East Grant Avenue and East Main Street and commonly known by the address 29500 Russell Blvd., Winters, California, identified as Yolo County Assessor's Parcel Number 038-050-018-000 and referred to as the Farmstead Property ("Subject Property") to be considered by the Winters Planning Commission was published in the *Winters Express* on June 4, 2025; and

WHEREAS, notice was mailed to adjacent property owners within 300 feet of the project location on June 10, 2025; and

Whereas, South Market Court Partnership, L.P., and the Mark and Christine Skreden Family Trust U/T/A dated September 21,1999 and the City desire to enter into a Development Agreement; and

Whereas, pursuant to Government Code, Sections 65867 and 65868, the Planning Commission must conduct a duly noticed public hearing to consider the proposed Development Agreement; and

Whereas, the procedures for entering into a Development Agreement are governed by Winters Municipal Code Chapter 15.72; and

Whereas, notice was provided in accordance with Chapter 15.72 of the Winters Municipal Code and state law; and

WHEREAS, the June 24, 2025 hearing was continued to a regular meeting of the Planning Commission on July 22, 2025; and

WHEREAS, on July 22, 2025, the Planning Division staff presented its oral and written staff report on the Farmstead Subdivision Project ("Project"), the Tentative Map, the Development Agreement and Affordable Housing Plan; and

WHEREAS, the Planning Commission held a public hearing on the Project, the Tentative Map, the Development Agreement and Affordable Housing Plan to receive oral and written testimony and written correspondence, and at the conclusion of the discussion, after receiving public comment, the Planning Commission continued the

public hearing to a special meeting on August 12, 2025, and gave staff/applicant direction on the items that needed to be addressed; and

WHEREAS, on August 12, 2025, at a special meeting, the Planning Commission proceeded with a continued public hearing on the Project, the Tentative Map, the Development Agreement and Affordable Housing Plan and received an updated staff report addressing those items requested by the Planning Commission; and

WHEREAS, the Planning Division staff recommends approval of the proposed the Tentative Map, the Development Agreement and Affordable Housing Plan.

NOW, THEREFORE BE IT RESOLVED that the Planning Commission of the City of Winters that:

SECTION 1. Based on the entire record before the Planning Commission, all written and oral evidence presented to the Planning Commission, the Planning Commission hereby recommends the City Council approve Tentative Map No. 5174 as depicted in **Exhibit A** based on the findings in **Exhibit B** and with the conditions of approval specified in **Exhibit C**. Exhibits A, B, and C are attached hereto and incorporated herein by this reference.

SECTION 2. The Planning Commission recommends the City Council of the City of Winters approve the Development Agreement attached hereto as Exhibit D and incorporated herein by this reference. The Planning Commission finds that the proposed Development Agreement is in the public interest and reasonably related to the public welfare for future development of the Farmstead Subdivision Project. The Planning Commission finds that adoption of the proposed Development Agreement is consistent with the City of Winters General Plan because it allows for the construction of the project. The Development Agreement between the City and South Market Court Partnership, L.P., and the Mark and Christine Skreden Family Trust U/T/A dated September 21,1999. An Environmental Impact Report (EIR) was prepared for this Project, and the Development Agreement was prepared consistent with Section 15164 of the CEQA Guidelines.

SECTION 3. The Planning Commission finds the Affordable Housing Plan is complies with Chapter 17.200 of the Winters Municipal Code and recommends the City Council of the City of Winters approve the Affordable Housing Plan attached hereto as **Exhibit E** and incorporated herein by this reference.

SECTION 4. This Resolution shall become effective upon its adoption.

I HEREBY CERTIFY that the foregoing Resolution was adopted by the Planning Commission at a regular meeting held on the 12th day of August 2025, by the following vote:

AYES:

NOES:

ABSENT:

_____
Lisa Baker, Planning Commission Chair

_____
Jeremy Craig, Planning Commission Secretary

EXHIBIT A
TENTATIVE MAP NO. 5174

EXHIBIT B
TENATIVE MAP FINDINGS

EXHIBIT C
TENTATIVE MAP CONDITIONS OF APPROVAL

EXHIBIT D
DEVELOPMENT AGREEMENT

EXHIBIT E
AFFORDABLE HOUSING PLAN

TRACT 5174
SMALL LOT TENTATIVE SUBDIVISION MAP
FARMSTEAD
CITY OF WINTERS, CALIFORNIA
JANUARY 10, 2024
SHEET 1 OF 2

PROJECT NOTES

RECORD OWNER
SOUTH MARKET COURT PTN/ SKREDEN
7919 FOLSOM BLVD., SUITE 340
SACRAMENTO, CA 95826
C/O: GLENN SORENSEN, JR.
916-425-8708
C/O: MARK SKREDEN
916-730-3300

APPLICANT
MARK SKREDEN
SKREDEN COMMERCIAL REAL ESTATE
140 JAMES REED
TRUCKEE, CA 96161
916-730-3300

PLANNER/ENGINEER
WOOD RODGERS INC.
3301 'C' STREET, BLDG. 100B
SACRAMENTO, CA 95816
CONTACT: TIMOTHY DENHAM, AICP
MICHAEL MOTRONI, PE 73891
PHONE: (916) 341-7760

ASSESSOR'S PARCEL NUMBER
038-050-018-000

AREA
61.9 ± ACRES GROSS

NUMBER OF PARCELS
202 PARCELS (190 RESIDENTIAL)

EXISTING USE
AGRICULTURE

PROPOSED USE
SINGLE- & MULTI-FAMILY RESIDENTIAL
COMMERCIAL & OPEN SPACE

EXISTING ZONING
R-1 (SINGLE FAMILY RESIDENTIAL)
C-1 (NEIGHBORHOOD COMMERCIAL)
OS (OPEN SPACE)

PROPOSED ZONING
R-1 (SINGLE FAMILY RESIDENTIAL)
R-2/PD (SINGLE FAMILY RESIDENTIAL, PD OVERLAY)
R-3 (MULTI-FAMILY RESIDENTIAL)
R-4 (HIGH DENSITY MULTI-FAMILY RESIDENTIAL)
C-1 (NEIGHBORHOOD COMMERCIAL)
OS (OPEN SPACE)

PARK DISTRICT
CITY OF WINTERS

FIRE PROJECTION
CITY OF WINTERS

SCHOOL DISTRICT
WINTERS JOINT UNIFIED SCHOOL DISTRICT

SEWER
CITY OF WINTERS

STORM DRAIN
CITY OF WINTERS

WATER
CITY OF WINTERS

ELECTRICITY
PG&E

GAS
PG&E

NOTE:
1) *SUBDIVIDER(S) RESERVES THE RIGHT TO FILE MULTIPLE FINAL MAPS PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT.*
2) *UNLESS OTHERWISE SHOWN ON MAP, ALL UTILITIES WILL BE INSTALLED WITHIN THE PUBLIC ROAD RIGHT-OF-WAY OR WITHIN A PUBLIC UTILITY EASEMENT.*
3) *ALL STREETS WILL HAVE A DEDICATED 12.5' PUBLIC UTILITY EASEMENT MEASURED FROM THE RIGHT-OF-WAY.*
4) *THIS IS AN APPLICATION FOR A DEVELOPMENT PERMIT.*
5) *THIS EXHIBIT IS FOR TENTATIVE MAP PURPOSES ONLY. ALL SITE CHARACTERISTICS ARE TO BE VERIFIED PRIOR TO FINAL MAP.*
6) *THE AERIAL TOPOGRAPHY SHOWN HERON WAS FLOWN BY WOOD RODGERS INC. IN JANUARY, 2019.*
7) *UNIT NUMBERING IS FOR IDENTIFICATION PURPOSES ONLY AND DOES NOT INDICATE PHASING ORDER OF DEVELOPMENT. ULTIMATE DEVELOPMENT PHASING SHALL BE ORDERLY AND WILL BE DETERMINED AT FINAL MAP AND/OR IMPROVEMENT PLAN STAGE.*
8) *PROPERTY INFORMATION SHOWN HEREON, INCLUDING LEGAL DESCRIPTION AND EXISTING EASEMENTS PER PRELIMINARY TITLE REPORT PROVIDED BY FIRST AMERICAN TITLE, ORDER NUMBER 0131-622735ALA. DATED MARCH 13, 2018.*
9) *THE FOLLOWING TWO EASEMENTS ARE LISTED IN THE PROVIDED PRELIMINARY TITLE REPORT, BUT THE LOCATION OF THE EASEMENTS CAN NOT BE DETERMINED FROM RECORD INFORMATION: 1) COUNTY OF YOLO ROAD EASEMENT PER W DEEDS 258 (TO BE ABANDONED). 2) PG&E POWER LINE EASEMENT PER 115 OR 490 (TO BE ABANDONED)*

LEGAL DESCRIPTION

REAL PROPERTY IN THE CITY OF WINTERS , COUNTY OF YOLO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST SIDE OF AND 15 FEET SOUTH FROM THE NORTHEAST CORNER OF HILLS SUBDIVISION IN FRACTIONAL SECTION 22, T. 8N., R. 1W., M.D.B., RECORDS, AND RUNNING THENCE SOUTH 1977.93 FEET ALONG A FENCE LINE ON THE EAST SIDE OF HILLS SUBDIVISION AND THE EXTENSION THEREOF, TO A POINT ON THE NORTH BOUNDARY LINE OF RANCHO RIO DE LOS PUTOS; THENCE NORTH 65° 35' EAST, ALONG THE SAID NORTH BOUNDARY LINE 1931.85 FEET; THENCE NORTH 0° 06' WEST TO AND ALONG A FENCE LINE 1154.55 FEET TO A FENCE CORNER; THENCE SOUTH 89° 20' WEST, ALONG A FENCE LINE 973.53 FEET TO A FENCE LINE 40.42 FEET TO A FENCE CORNER; THENCE NORTH 0° 35-1/2' EAST, ALONG A FENCE LINE 40.42 FEET TO A FENCE CORNER; THENCE SOUTH 89° 38 1/2' WEST ALONG A FENCE LINE 784.03 FEET TO THE POINT OF BEGINNING BEING A PART OF FRACTIONAL SECTION 22, T. 8N., R. 1W. M.D.B. & M.

EXCEPTING THEREFROM THE INTEREST CONVEYED BY M.F. ORMEBY, ETAL, TO YOLO COUNTY CONSOLIDATED WATER COMPANY, A CORPORATION, BY DEED DATED APRIL 9, 1904, AND RECORDED IN BOOK 68 OF DEEDS, PAGE 165, YOLO COUNTY RECORDS.

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA, BY DEED RECORDED DECEMBER 21, 1959 IN BOOK 591 OF OFFICIAL RECORDS AT PAGE 334.

ALSO EXCEPTING THEREFROM ALL OF THE OIL, GAS OR OTHER MINERAL RIGHTS OWNED BY IT IN AND TO THE SUBJECT REAL PROPERTY, TOGETHER WITH THE EXCLUSIVE RIGHT TO SUCH MINERAL RIGHTS AS GRANTOR, ITS SUCCESSORS AND/OR ASSIGNS MAY DEEM APPROPRIATE, EXCLUDING THE RIGHT TO ENTER UPON THE SURFACE OF THE SUBJECT PROPERTY FOR ANY PURPOSES OR TO USE SAID SURFACE FOR ANY PURPOSE CONNECTED WITH THE MINERAL RIGHTS OR TO DRILLING ANY WELL OR WELLS FROM THE SURFACE OF SAID REAL PROPERTY PURSUANT TO ANY CLAIM OR OWNERSHIP OF ANY MINERAL RIGHTS RELATED TO SUBJECT PROPERTY. THE POWER AND AUTHORITY RETAINED IN THIS PARAGRAPH SHALL RUN WITH THE OWNERSHIP OF THE MINERAL RIGHTS, AS RESERVED IN DEED FROM YOLOMA FARMS, L.P., A CALIFORNIA LIMITED PARTNERSHIP, RECORDED OCTOBER 26, 1990, IN BOOK 2175 OF OFFICIAL RECORDS AT PAGE 63, INSTRUMENT.

VICINITY MAP



LAND USE SUMMARY

UNIT/ LOT NO.	LAND USE	MIN. LOT SIZE	GROSS ACRES	NET ACRES	UNITS	DENSITY
1	MEDIUM DENSITY RESIDENTIAL	50'x100'	16.1	11.0	90	5.6
2	LOW DENSITY RESIDENTIAL	65'x100'	10.8	8.0	47	4.4
3	LOW DENSITY RESIDENTIAL	65'x100'	12.5	8.9	51	4.1
SUBTOTAL			39.4	27.9	188	4.8
A	TOWNHOMES	-	5.7	5.3	57	10.0
H	HIGH DENSITY RESIDENTIAL	-	4.4	4.1	84	20.0
SUBTOTAL			10.1	9.4	141	10.0
B1-B3	COMMERCIAL	-	3.3	2.9	-	
D	PARK	-	2.0	1.9	-	
E	PARK/DETENTION BASIN	-	4.0	3.9	-	
F	LINEAR PARK	-	0.9	0.9		
G	DRAINAGE CHANNEL	-	2.2	2.0	-	
I & J	LANDSCAPE LOT	-	-	0.3	-	
K	PROPOSED I.O.D.	-	-	0.2		
L, M, N, O	PASEO	-	-	0.4		
ROW	RIGHT-OF-WAY	-	-	12.1	-	
SUBTOTAL			12.4	24.6		
TOTAL			61.9	61.9	329	

*UNIT NET ACREAGE EXCLUDES LANDSCAPE LOTS, PASEOS, AND ALL RIGHT-OF-WAYS.

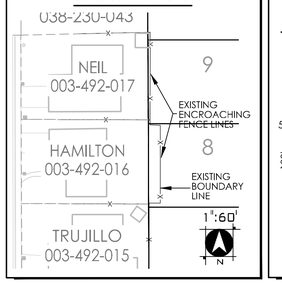
SUBDIVISION MODIFICATION

1. NON-STANDARD ELBOW (2)
2. IRREGULAR INTERSECTION (2)

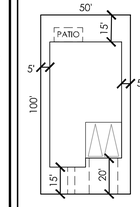
LOT SIZE SUMMARY

UNIT	LAND USE	MAX. SF	MIN. SF	AVERAGE
1	MDR	8,798	5,000	5,306
2	LDR	12,439	6,500	7,293
3	LDR	12,287	6,500	7,698
TOTAL				6,766

DETAIL 'A'



DETAIL 'B'
UNIT 1 R2-PD PLOT PLAN
1":40'



SETBACKS:

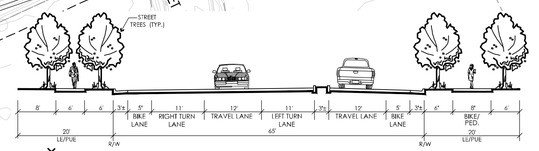
FRONT:
15' TO HOUSE/PORCH,
20' TO GARAGE

SIDE:
5' BOTH SIDES

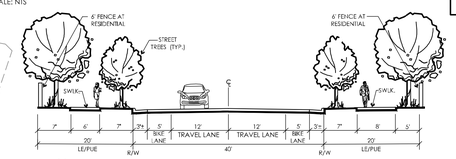
REAR:
15' TO HOUSE

MAX. LOT COVERAGE:

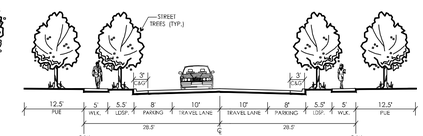
65% 1-STORY,
60% 2-STORY



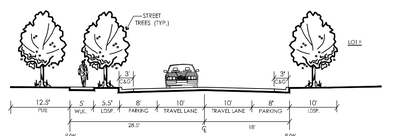
A — E. MAIN STREET (SOUTH OF BROADVIEW LANE)
65' STREET SECTION
SCALE: NTS



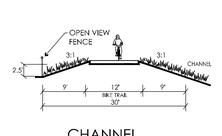
B — E. MAIN STREET (NORTH OF BROADVIEW LANE)
40' STREET SECTION
SCALE: NTS



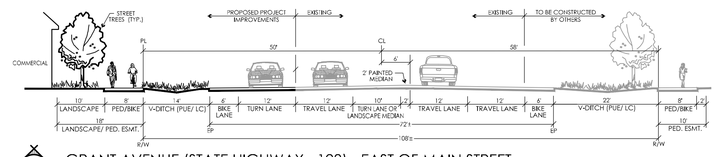
C1 — MINOR RESIDENTIAL STREET (TYPICAL)
57' STREET SECTION
SCALE: NTS



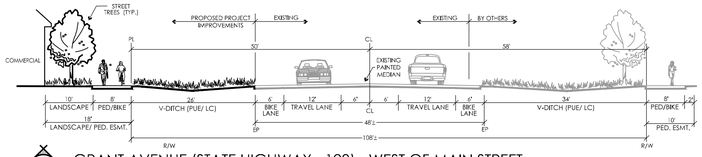
C2 — MINOR RESIDENTIAL STREET (ADJACENT TO LOT F)
46.5' STREET SECTION
SCALE: NTS



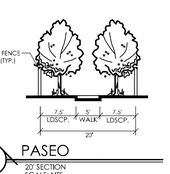
D — CHANNEL BIKE TRAIL
SCALE: NTS



E1 — GRANT AVENUE (STATE HIGHWAY - 128) - EAST OF MAIN STREET
108' STREET SECTION
SCALE: NTS



E2 — GRANT AVENUE (STATE HIGHWAY - 128) - WEST OF MAIN STREET
108' STREET SECTION
SCALE: NTS



F — PASEO
20' SECTION
SCALE: NTS

SHEET 1 OF 2

NORTH
0 100 200 400

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

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EXHIBIT B
FARMSTEAD SUBDIVISION
AUGUST 12, 2025

Findings for Tentative Subdivision Map (Government Code 66474)

1. The proposed tentative map is consistent with the General Plan.

2. The design and improvement of the proposed tentative map is consistent with the General Plan.

3. The site is physically suitable for the type of development.

4. The site is physically suitable for the proposed density of development.

5. The design of the subdivision and the proposed improvements will not cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

6. The design of the subdivision and type of improvements will not cause serious public health problems.

7. The design of the subdivision and the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision.

EXHIBIT C
DRAFT CONDITIONS OF APPROVAL
August 12. 2025

GENERAL

1. In the event any claim, action or proceeding is commenced naming the City or its agents, officers, and employees as defendant, respondent or cross defendant arising or alleged to arise from the City's approval of this Project, the Project Applicant shall defend, indemnify, and hold harmless the City or its agents, officers and employees, from liability, damages, penalties, costs or expense in any such claim, action, or proceeding to attach, set aside, void, or annul an approval of the City of Winters, the Winters Planning Commission, any advisory agency to the City, or the Winters City Council. Project Applicant shall defend such action at Applicant's sole cost and expense which includes court costs and attorneys' fees. The City shall promptly notify the Applicant of any such claim, action, or proceeding and shall cooperate fully in the defense. Nothing in this condition shall be construed to prohibit the City of Winters from participating in the defense of any claim, action, or proceeding, if City bears its own attorneys' fees and cost, and defends the action in good faith. Applicant shall not be required to pay or perform any settlement unless the Applicant in good faith approves the settlement, and the settlement imposes no direct or indirect cost on the City of Winters, or its agents, officers, and employees, the Winters Planning Commission, any advisory agency to the City, local district or the City Council.

2. Applicant shall pay all applicable taxes, fees, and charges at the rate and amount in effect at the time of such taxes, fees, and charges become due and payable.

3. Applicant shall pay all development impact fees adopted by the City Council at the rate in effect at the time of building permit issuance and shall pay fees required by the Development Agreement.

GENERAL PLAN REQUIREMENTS

4. Pursuant to General Plan Policy II.A.19, a minimum of ten percent (10%) of the single-family residential lots (i.e., 19 lots) shall be reserved for and sold to local builders or owner-builders. The location of said lots shall be identified on the first Final Map or Parcel Map.

5. Pursuant to General Plan Policy II.D.4 and IV.A.1, necessary public facilities and services shall be available prior to occupancy of each phase of the Project.

6. Pursuant to General Plan Policy IV.B.12 and V.A.13, drought-tolerant plant species and drip irrigation systems shall be used in landscaping the new park. Landscaping shall also comply with the State of California's Model Water Efficient Landscape Ordinance (MWELO) and Chapter 17.76 (Landscaping and Irrigation) of the Winters Municipal Code.

7. Pursuant to General Plan Policy IV.B.14, there shall be a water meter on each new hookup. Applicant shall comply with Chapter 13.04 (Water Service) of the Winters Municipal Code.

8. Pursuant to General Plan Policy IV.C.2, adequate sewer service shall be provided prior to the issuance of any individual building permit. Applicant shall comply with Chapter 13.08 (Wastewater) of the Winters Municipal Code.

9. Pursuant to General Plan Policy IV.J.3, all new electrical and communication lines shall be installed underground.

10. Pursuant to General Plan Policy V.A.3, park maintenance shall be funded through a lighting and landscaping district or other appropriate mechanism.

11. Pursuant to General Plan Policy V.A.10, the proposed neighborhood park shall be designed to buffer existing and planned surrounding residential uses from excessive noise, light, and other potential nuisances.

12. Pursuant to General Plan Policy VI.A.6, grading shall be carried out during dry months, when possible. Areas not graded shall be disturbed as little as possible. Construction and grading areas, as well as soil stockpiles, should be covered or temporarily revegetated when left for long periods. Revegetation of slopes should be carried out immediately upon completion of grading. Also, temporary drainage structures and sedimentation basins must be installed to prevent sediment from entering and thereby degrading the quality of downstream surface waters, particularly Putah Creek. The full cost of any necessary mitigation measures shall be borne by the Applicant. Pursuant to General Policy VII.B.3, should the City allow any grading to occur during the rainy season, conditions shall be implemented to ensure that silt is not conveyed to the storm drainage system. Applicant shall comply with Chapter 15.100 (Grading Regulations and Permitting Procedures) of the Winters Municipal Code and Mitigation Measure 4.5-2.

13. Pursuant to General Plan Policy VI.E.6, construction-related dust must be minimized. The Project must include dust control measures as part of their construction mitigation plans.

    a. All inactive portions of the construction site, which have been graded, must be seeded and watered until vegetation is grown.

    b. Grading shall not occur when wind speeds exceed 20 MPH over a one-hour period.

    c. Construction vehicle speed on unpaved roads shall not exceed 15 MPH.

d. If air quality standards are exceeded in May through October, the construction schedule must be arranged to minimize the number of vehicles and equipment operating at the same time.

e. Construction practices must minimize vehicle idling.

f. Potentially windblown materials must be watered or covered.

g. Construction areas and streets must be wet swept.

14. Pursuant to General Plan Policies VII.A.1, VII.A.2, and VII.C.4, all site work and construction activities shall be in accordance with the requirements of the City, and other applicable local, regional, state and Federal agencies. Applicant shall comply with Title 15 (Buildings and Construction) of the Winters Municipal Code.

15. Pursuant to General Plan Policy VIII.D.2, street trees shall be planted along all streets, in accordance with the City's Street Tree Plan and Standards. There shall be a minimum of one street tree placed in the center of the front yard of each single-family lot, and on both frontages for corner lots. All trees shall be selected from the approved street tree list and shall be a minimum of fifteen (15) gallons in size. Street trees that create a large canopy at maturity will be required in all medians and streetside landscape strips. All street trees shall be installed with a root-barrier and deep watering system to minimize future damage to sidewalks and streets.

ENVIRONMENTAL IMPACT REPORT MITIGATION MEASURES

16. **Mitigation Measure 4.1-4(a)** Prior to approval of Improvement Plans, the Project Applicant shall submit a photometric and proposed lighting plan for the project to the City of Winters Community Development Department for review and approval, demonstrating that the proposed lighting will not adversely affect adjacent areas. The lighting plan shall include, but not necessarily be limited to, the following provisions:
    a. Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties;
    b. Place and shield or screen flood and area lighting needed for construction activities and/or security so as not to disturb adjacent residential areas and passing motorists; and
    c. For public lighting, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low pressure sodium, metal halide lamps, or fluorescent bulbs) or that blink or flash.

17. **Mitigation Measure 4.1-4(b**) Prior to approval of building permits, the project applicant shall submit final plans that demonstrate the use of appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage to prevent light and glare from adversely affecting motorists on nearby roadways. Proof of compliance shall be submitted to the City of Winters Community Development Department for review and approval.

18. **Mitigation Measure 4.2-1** Prior to initiation of grading activities for the Farmstead Subdivision Project site, the project applicant shall complete a Yolo HCP/NCCP application package, which includes an application form, a project description, land cover mapping and planning-level surveys, verification of land cover impacts, an Avoidance/Minimization/Mitigation (AMM) plan, and fees or equivalent mitigation. Proof of compliance with the aforementioned requirements shall be submitted to the City of Winters Community Development Department for review and approval.

19. **Mitigation Measure 4.3-7(a)** The following requirements shall be noted on project improvement plans, subject to review and approval by the City of Winters Community Development Department:

    a. The proposed residential portion of the project shall be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; and
    b. The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces.

    If the use of all-electric for any project component(s) (e.g., an appliance) is not enforceable or commercially feasible at the time of issuance of building permit, the applicant shall be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric. The emissions from the use of natural gas shall be calculated by a qualified professional utilizing YSAQMD-, CARB-, or the USEPA-approved emissions models and quantification methods available and submitted to the City for review and approval, which shall include third-party review by a qualified consultant of the City's selection and be subject to applicant reimbursement of consultant costs.

    Any and all GHG credits to off-set for the use of natural gas must be created through a CARB approved registry. These registries are currently the ACR, CAR, and Verra, although CARB may accredit additional registries in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. The selected protocol must demonstrate that the GHG emissions reductions are real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR 95802(a) are provided below.

        (1) Real: GHG reductions or enhancements result from a demonstrable action or set of actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the [GHG credit] project boundary and account for uncertainty and the potential for activity shifting and market-shifting leakage.

(2) Additional: GHG reductions or removals that exceed any GHG reduction, or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario.

(3) Permanent: GHG reductions and removal enhancements are not reversible or, when GHG reductions and GHG-removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG-emission reductions and GHG-removal enhancements to ensure that all credited reductions endure for at least 100 years.

(4) Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG-removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the [GHG credit] project boundary, while accounting for uncertainty. activity-shifting, and market-shifting leakage.

(5) Verifiable: A [GHG credit] project report assertion is well-documented and transparent such that it lends itself to an objective review by an accredited verification body.

(6) Enforceable: The authority for CARB to hold a particular party liable and take appropriate action if any of the provisions of this article are violated. Note that this definition of enforceability is specific to the Cap-and-Trade regulation, where CARB holds enforcement authority, but this measure will employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and backed by a legal instrument or contract that defines exclusive ownership.

Geographic Prioritization of GHG Credits

GHG credits from reduction projects in the City will be prioritized before projects in larger geographies (i.e., northern California, California, United States, and international). The applicant will inform brokers of the required geographic prioritization for the procurement of GHG credits. GHG credits from reduction projects identified in the City that are of equal or lesser cost compared to the settlement price of the latest Cap and-Trade auction must be included in the transaction. GHG credits from reduction projects outside of the City may be purchased if adequate credits cannot be found in the City or if they exceed the maximum price identified above. The economic and geographic analysis undertaken to inform the selection of GHG credits must be provided by the applicant to the City as part of the required documentation discussed below under Plan Implementation and Reporting.

Types of GHG Credits

GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions

verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project generated emissions at any time. GHG credits from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated through a prorated surcharge of additional FMUs proportional to the effect of the delay. Because emissions of CO2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10 percent for every year of lag between project emissions and their reduction through an FMU will be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 metric ton of project GHG emissions generated in the year prior to funding and implementation of the FMU).

Verification and Independent Review of GHG Credits
All GHG credits will be verified by an independent verifier accredited by the ANSI National Accreditation Board (ANAB) or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the accreditation board (i.e., ANAB or CARB), the verifier will certify the following:

- GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. Verification of the latter requires certification that the credits meet or exceed the standards in 17 CCR 95972.
- GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.
- GHG credits are purchased according to the geographic prioritization standard defined in this measure under Geographic Prioritization of GHG Credits.

Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that will result from future projects, additional verification must occur beyond initial certification is required. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification will examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. The applicant will retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project.

20. **Mitigation Measure 4.4-1** If construction has not commenced prior to the first day of spring 2026 (March 20, 2026), a new round of special-status plant surveys shall be conducted by a qualified biologist in areas proposed for disturbance, prior to the

commencement of construction.

The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the California Native Plant Society (CNPS) Botanical Survey Guidelines of the California Native Plant Society, and the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The surveys shall be conducted at the appropriate time of year when plants are in bloom. A report summarizing the results of the protocol-level special-status plant surveys shall be submitted for review and approval to the City of Winters Community Development Department.

If special-status plant species are not found, further mitigation shall not be required. If special-status plants are found within the proposed impact area and they are perennials, such as recurved larkspur, then mitigation shall consist of digging up the plants and transplanting them into a suitable mitigation area prior to construction. If the plant found is an annual, such as dwarf downingia or bearded popcornflower, then mitigation shall consist of collecting seed-bearing soil and spreading it into a suitable constructed wetland at a mitigation site. If special-status plants will be impacted, a mitigation plan shall be developed and approved by the City of Winters Community Development Department. Mitigation for the transplantation/establishment of rare plants shall result in no net loss of individual plants after a five-year monitoring period.

21. **Mitigation Measure 4.4-2**

Northwestern Pond Turtle

4-4-2(a) Yolo HCP/NCCP AMM14: There are no specific design requirements for western pond turtle habitat, however, project proponents must follow design requirements for the valley foothill riparian and lacustrine and riverine natural communities described in AMMs 9 and 10, which require a 100-foot (minimum) permanent buffer zone from the canopy drip-line (the farthest edge on the ground where water will drip from the tree canopy, based on the outer boundary of the tree canopy). If modeled upland habitat will be impacted, a qualified biologist must be present and will assess the likelihood of western pond turtle nests occurring in the disturbance area (based on sun exposure, soil conditions, and other species habitat requirements). If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, the qualified biologist will monitor all initial ground disturbing activity for nests that may be unearthed during the disturbance and will move out of harm's way any turtles or hatchlings found.

Giant Garter Snake

4.4-2(b) Yolo HCP/NCCP AMM15: The project proponent will avoid effects on areas where planning-level surveys indicate the presence of suitable habitat for giant garter snake. To avoid effects on giant garter snake aquatic habitat, the project proponent will conduct no in-water/in-channel activity and maintain a permanent 200-foot non-disturbance buffer from the outer edge of potentially occupied aquatic habitat. If the project proponent cannot avoid effects of construction activities, the project proponent will implement the measures below

to minimize effects of construction projects (measures for maintenance activities are described after the following bulleted list).

- Conduct preconstruction clearance surveys using USFWS-approved methods within 24 hours prior to construction activities within identified giant garter snake aquatic and adjacent upland habitat. If construction activities stop for a period of two weeks or more, conduct another preconstruction clearance survey within 24 hours prior to resuming construction activity.
- Restrict all construction activity involving disturbance of giant garter snake habitat to the snake's active season, May 1 through October 1. During this period, the potential for direct mortality is reduced because snakes are expected to move and avoid danger.
- In areas where construction is to take place, encourage giant garter snakes to leave the site on their own by dewatering all irrigation ditches, canals, or other aquatic habitat (i.e., removing giant garter snake aquatic habitat) between April 15 and September 30. Dewatered habitat must remain dry, with no water puddles remaining, for at least 15 consecutive days prior to excavating or filling of the habitat. If a site cannot be completely dewatered, netting and salvage of giant garter snake prey items may be necessary to discourage use by snakes.
- Provide environmental awareness training for construction personnel, as approved by the Conservancy. Training may consist of showing a video prepared by a qualified biologist, or an in-person presentation by a qualified biologist. In addition to the video or in-person presentation, training may be supplemented with the distribution of approved brochures and other materials that describe resources protected under the Yolo HCP/NCCP and methods for avoiding effects.
- A qualified biologist will prepare a giant garter snake relocation plan which must be approved by the Conservancy prior to work in giant garter snake habitat. The qualified biologist will base the relocation plan on criteria provided by CDFW or USFWS, through the Conservancy.
- If a live giant garter snake is encountered during construction activities, immediately notify the project's biological monitor and USFWS and CDFW. The monitor will stop construction in the vicinity of the snake, monitor the snake, and allow the snake to leave on its own. The monitor will remain in the area for the remainder of the workday to ensure the snake is not harmed or, if it leaves the site, does not return. If the giant garter snake does not leave on its own, the qualified biologist will relocate the snake consistent with the relocation plan described above.
- Employ the following management practices to minimize disturbances to habitat:
    - Install temporary fencing to identify and protect adjacent marshes, wetlands, and ditches from encroachment from construction equipment and personnel.
    - Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted practices. No plastic, monofilament, jute, or similar

erosion-control matting that could entangle snakes or other wildlife will be permitted.

Ongoing maintenance covered activities by local water and flood control agencies typically involve removal of vegetation, debris, and sediment from water conveyance canals as well as resloping, rocking, and stabilizing the canals that serve agricultural water users. Maintenance of these conveyance facilities can typically occur only from mid-January through April when conveyance canals and ditches are not in service by the agency, although some drainages are used for storm conveyance during the winter and are wet all year. This timing is during the giant garter snake's inactive period. This is when snakes may be using underground burrows and are most vulnerable to take because they are unable to move out of harm's way. Maintenance activities, therefore, will be limited to the giant garter snake's active season (May 1 to October 1) when possible. All personnel involved in maintenance activities within giant garter snake habitat will first participate in environmental awareness training for giant garter snake, as described above for construction-related activities. To minimize the take of giant garter snake, the local water or flood control agency will limit maintenance of conveyance structures located within modeled giant garter snake habitat (Appendix A, Covered Species Accounts) to clearing one side along at least 80 percent of the linear distance of canals and ditches during each maintenance year (e.g., the left bank of a canal is maintained in the first year and the right bank in the second year). To avoid collapses when resloping canal and ditch banks composed of heavy clay soils, clearing will be limited to one side of the channel during each maintenance year.

For channel maintenance activities conducted within modeled habitat for giant garter snake, the project proponent will place removed material in existing dredged sites along channels where prior maintenance dredge disposal has occurred. For portions of channels that do not have previously used spoil disposal sites and where surveys have been conducted to confirm that giant garter snakes are not present, removed materials may be placed along channels in areas that are not occupied by giant garter snake and where materials will not re-enter the canal because of stormwater runoff.

Modifications to this AMM may be made with the approval of the Conservancy, USFWS, and CDFW.

22. **Mitigation Measure 4.4-3**

Yolo HCP/NCCP AMM21: The project proponent will retain a qualified biologist to identify and quantify (in acres) tricolored blackbird nesting and foraging habitat (as defined in Appendix A, Covered Species Accounts) within 1,300 feet of the footprint of the covered activity. If a 1,300-foot buffer from nesting habitat cannot be maintained, the qualified biologist will check records maintained by the Conservancy (which will include CNDDB data, and data from the tricolored blackbird portal) to determine if tricolored blackbird nesting colonies have been active in or within 1,300 feet of the

project footprint during the previous five years. If there are no records of nesting tricolored blackbirds on the site, the qualified biologist will conduct visual surveys to determine if an active colony is present, during the period from March 1 to July 30, consistent with protocol described by Kelsey (2008).

Operations and maintenance activities or other temporary activities that do not remove nesting habitat and occur outside the nesting season (March 1 to July 30) do not need to conduct planning or construction surveys or implement any additional avoidance measures.

If an active tricolored blackbird colony is present or has been present within the last five years within the planning-level survey area, the project proponent will design the project to avoid adverse effects within 1,300 feet of the colony site(s), unless a shorter distance is approved by the Conservancy, USFWS, and CDFW. If a shorter distance is approved, the project proponent will still maintain a 1,300-foot buffer around active nesting colonies during the nesting season but may apply the approved lesser distance outside the nesting season. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.

23. **Mitigation Measure 4.4-4.**

Yolo HCP/NCCP AMM18: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify western burrowing owl habitat (as defined in Appendix A, Covered Species Accounts) within or adjacent to (i.e., within 500 feet of) a covered activity. If habitat for this species is present, additional surveys for the species by a qualified biologist are required, consistent with CDFW guidelines (Appendix L).

If burrowing owls are identified during the planning level survey, the project proponent will minimize activities that will affect occupied habitat as follows. Occupied habitat is considered fully avoided if the project footprint does not impinge on a nondisturbance buffer around the suitable burrow. For occupied burrowing owl nest burrows, this nondisturbance buffer could range from 150 to 1,500 feet (Table 4-2, Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls [incorporated as Table 4.4-2 of this chapter]), depending on the time of year and the level of disturbance, based on current guidelines (California Department of Fish and Game 2012). The Yolo HCP/NCCP generally defines low, medium, and high levels of disturbances of burrowing owls as follows:

- Low: Typically 71-80 dB, generally characterized by the presence of passenger vehicles, small gas-powered engines (e.g., lawn mowers, small chain saws, portable generators), and high-tension power lines. Includes electric hand tools (except circular saws, impact wrenches and similar). Management and enhancement activities would typically fall under this category. Human activity in the immediate vicinity of burrowing owls would also constitute a low level of disturbance, regardless of the noise levels.

- Moderate: Typically 81-90 dB, and would include medium- and large-sized construction equipment, such as backhoes, front end loaders, large pumps and generators, road graders, dozers, dump trucks, drill rigs, and other moderate to large diesel engines. Also includes power saws, large chainsaws, pneumatic drills and impact wrenches, and large gasoline-powered tools. Construction activities would normally fall under this category.

- High: Typically 91-100 dB, and is generally characterized by impacting devices, jackhammers, compression ("jake") brakes on large trucks, and trains. This category includes both vibratory and impact pile drivers (smaller steel or wood piles) such as used to install piles and guard rails, and large pneumatic tools such as chipping machines. It may also include large diesel and gasoline engines, especially if in concert with other impacting devices. Felling of large trees (defined as dominant or subdominant trees in mature forests), truck horns, yarding tower whistles, and muffled or underground explosives are also included. Very few covered activities are expected to fall under this category, but some construction activities may result in this level of disturbance.

	Table 4.4.2 **Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls**		
	Level of Disturbance (feet) from Occupied Burrows		
Time of Year	**Low**	**Medium**	**High**
April 1-August 15	600	1,500	1,500
August 16-October 15	600	600	1,500
October 16-March 31	150	300	1,500
Source: Yolo Habitat Conservancy. Yolo County Habitat Conservation Plan/Natural Community Conservation Plan [Table 4-2]. April 2018.			

The project proponent may qualify for a reduced buffer size, based on existing vegetation, human development, and land use, if agreed upon by CDFW and USFWS (California Department of Fish and Game 2012).

If the project does not fully avoid direct and indirect effects on nesting sites (i.e., if the project cannot adhere to the buffers described above), the project proponent will retain a qualified biologist to conduct preconstruction surveys and document the presence or absence of western burrowing owls that could be affected by the covered activity. Prior to any ground disturbance related to covered activities, the qualified biologist will conduct the preconstruction surveys within three days prior to ground disturbance in areas identified in the planning-level surveys as having suitable

burrowing owl burrows, consistent with CDFW preconstruction survey guidelines (Appendix L, Take Avoidance Surveys). The qualified biologist will conduct the preconstruction surveys three days prior to ground disturbance. Time lapses between ground disturbing activities will trigger subsequent surveys prior to ground disturbance.

If the biologist finds the site to be occupied by western burrowing owls during the breeding season (February 1 to August 31), the project proponent will avoid all nest sites, based on the buffer distances described above, during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups that forage on or near the site following fledging). Occupancy of burrowing owl habitat during preconstruction surveys is confirmed at a site when at least one burrowing owl or sign (fresh whitewash, fresh pellets, feathers, or nest ornamentation) is observed at or near a burrow entrance. Construction may occur inside of the disturbance buffer during the breeding season if the nest is not disturbed and the project proponent develops an AMM plan that is approved by the Conservancy, CDFW, and USFWS prior to project construction, based on the following criteria:

- The Conservancy, CDFW, and USFWS approves the AMM plan provided by the project proponent.

- A qualified biologist monitors the owls for at least three days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).

- The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.

- If the qualified biologist identifies a change in owl nesting and foraging behavior as a result of construction activities, the qualified biologist will have the authority to stop all construction related activities within the non-disturbance buffers described above. The qualified biologist will report this information to the Conservancy, CDFW, and USFWS within 24 hours, and the Conservancy will require that these activities immediately cease within the non-disturbance buffer. Construction cannot resume within the buffer until the adults and juveniles from the occupied burrows have moved out of the project site, and the Conservancy, CDFW, and USFWS agree.

- If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the project proponent may remove the non-disturbance buffer, only with concurrence from CDFW and USFWS. If the burrow cannot be avoided by construction activity, the biologist will excavate and collapse the burrow in accordance with CDFW’s 2012 guidelines to prevent reoccupation after receiving approval from the wildlife agencies.

If evidence of western burrowing owl is detected outside the breeding season (December 1 to January 31), the project proponent will establish a non-disturbance buffer around occupied burrows, consistent with Table 4-2 (incorporated as Table 4.4-2 of this chapter), as determined by a qualified biologist. Construction activities within the disturbance buffer are allowed if the following criteria are met to prevent owls from abandoning important overwintering sites:

- A qualified biologist monitors the owls for at least three days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).

- The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.

- If there is any change in owl roosting and foraging behavior as a result of construction activities, these activities will cease within the buffer.

- If the owls are gone for at least one week, the project proponent may request approval from the Conservancy, CDFW, and USFWS for a qualified biologist to excavate and collapse usable burrows to prevent owls from reoccupying the site if the burrow cannot be avoided by construction activities. The qualified biologist will install one-way doors for a 48-hour period prior to collapsing any potentially occupied burrows. After all usable burrows are excavated, the buffer will be removed and construction may continue.

Monitoring must continue as described above for the nonbreeding season as long as the burrow remains active.

A qualified biologist will monitor the site, consistent with the requirements described above, to ensure that buffers are enforced and owls are not disturbed. Passive relocation (i.e., exclusion) of owls has been used in the past in the Plan Area to remove and exclude owls from active burrows during the nonbreeding season (Trulio 1995). Exclusion and burrow closure will not be conducted during the breeding season for any occupied burrow. If the Conservancy determines that passive relocation is necessary, the project proponent will develop a burrowing owl exclusion plan in consultation with CDFW biologists. The methods will be designed as described in the species monitoring guidelines (California Department of Fish and Game 2012) and consistent with the most up-to-date checklist of passive relocation techniques12. This may include the installation of one-way doors in burrow entrances by a qualified biologist during the nonbreeding season. These doors will be in place for 48 hours and monitored twice daily to ensure that the owls have left the burrow, after which time the biologist will collapse the burrow to prevent reoccupation. Burrows will be excavated using hand tools. During excavation, an escape route will be maintained at all times. This may include inserting an artificial structure, such as piping, into the burrow to prevent collapsing until the entire burrow can be excavated and it can be determined that no owls are trapped inside the burrow. The Conservancy may allow other methods

of passive or active relocation, based on best available science, if approved by the wildlife agencies. Artificial burrows will be constructed prior to exclusion and will be created less than 300 feet from the existing burrows on lands that are protected as part of the reserve system.

24. **Mitigation Measure 4.4-5**.

Yolo HCP/NCCP AMM16: The project proponent will retain a qualified biologist to conduct planning-level surveys and identify any nesting habitat present within 1,320 feet of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.

If a construction project cannot avoid potential nest trees (as determined by the qualified biologist) by 1,320 feet, the project proponent will retain a qualified biologist to conduct preconstruction surveys for active nests consistent, with guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000), between March 15 and August 30, 15 days prior to the beginning of the construction activity. The results of the survey will be submitted to the Conservancy and CDFW. If active nests are found during preconstruction surveys, a 1,320-foot initial temporary nest disturbance buffer shall be established. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior. Up to 20 Swainson's hawk nest trees (documented nesting within the last 5 years) may be removed during the permit term, but they must be removed when not occupied by Swainson's hawks.

For covered activities that involve pruning or removal of a potential Swainson's hawk or white-tailed kite nest tree, the project proponent will conduct preconstruction surveys that are consistent with the guidelines provided by the Swainson's Hawk Technical Advisory Committee (2000). If active nests are found during preconstruction surveys, no tree pruning or removal of the nest tree will occur during the period between March 1 and August 30 within 1,320 feet of an active nest, unless a qualified biologist determines that the young have fledged and the nest is no longer active.

25. **Mitigation Measure 4.4-6**

The removal of any buildings, trees, or shrubs shall occur from September 1 through December 15, outside of the avian nesting season. If removal of buildings, trees, or shrubs occurs, or construction begins between February 1 and August 31 (nesting season for passerine or non-passerine land birds) or between December 15 and

August 31 (nesting season for raptors), a nesting bird survey shall be performed by a qualified ornithologist throughout the project site and all accessible areas within a 500-foot radius of proposed construction areas, at most, 14 days prior to the removal or disturbance of a potential nesting structure, tree, or shrub, or the initiation of other construction activities. During this survey, a qualified biologist shall inspect all potential nesting habitat (trees, shrubs, structures, grasslands, etc.) for nests in and immediately adjacent to the impact areas. If a break in construction activity of more than 14 days occurs, then subsequent surveys shall be conducted. A report of the survey findings shall be provided to the City of Winters Community Development Department and CDFG within 30 days of the completed survey and is valid for one construction season. If nests are not found, further mitigation is not required.

If active raptor nests are found, construction activities shall not take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot non-disturbance buffer shall be established. The non-disturbance buffers may be reduced if a smaller, sufficiently protective buffer is approved by the City after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, the nest occupants' habituation to existing or ongoing activity, and nest concealment (i.e., whether visual or acoustic barriers occur between the proposed activity and the nest). A qualified biologist may visit the nest, as needed, to determine when the young have fledged the nest and are independent of the site or the nest can be left undisturbed until the end of the nesting season.

If the nest buffer is reduced but construction activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest in a way that would be considered a result of construction activities, then the exclusionary buffer should be increased such that activities are far enough from the nest to stop the agitated behavior. The revised non-disturbance buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the City.

Construction activities may only resume within the non-disturbance buffer after a follow-up survey by the biologist has been conducted and a report has been prepared indicating that the nest (or nests) are not active any longer, and that new nests have not been identified.

26. **Mitigation Measure 4.4-7**

Prior to the commencement of construction activities, a qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees within the proposed impact footprint and within the project vicinity. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. The results of the assessment shall be submitted for review and approval to the City of Winters Community Development Department.

- If potential roosting habitat is identified (cavities in trees) within the areas

proposed for impact, the biologist shall survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys shall be conducted using methods that are considered acceptable by experts after consultation with CDFW. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof.

- If roosting bats are identified within any of the trees planned for removal, or if presence is assumed, the trees shall be removed of pup season, only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree.

- Additionally, all other tree removal shall be conducted from January through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.

- If roosting bats are identified within any trees planned for removal, a bat exclusion plan shall be prepared by a qualified bat biologist describing the methods to be used to humanely exclude bats prior to disturbance. The plan shall be submitted for review and approval to the City of Winters Community Development Department after consultation with CDFW and shall be implemented prior to the start of construction.

- The requirements for the bat expert and City to consult with CDFW prior to approving survey methods and a bat exclusion plan shall be satisfied either where CDFW Mitigation Measures Level of Significance After Mitigation responds to requests for consultation within 30 days of the requests or where the bat expert and City have attempted to consult with CDFW but CDFW has failed to respond to the request within 30 days of the placement of the request.

27. **Mitigation Measure 4.4-8**

Within 48 hours prior to the commencement of construction, a preconstruction survey for American badger shall be conducted by a qualified biologist. A report summarizing the results of the preconstruction survey shall be submitted for review and approval to the City of Winters Community Development Department. If American badger or burrows with American badger are found on-site during the preconstruction survey, consultation with CDFW shall occur prior to the initiation of any construction activities, to determine an appropriate burrow excavation and/or relocation method. If American badger is not found, further mitigation shall not be required.

28. **Mitigation Measure 4.4-10**

Prior to the commencement of ground-disturbing activities, the project applicant shall apply to the Central Valley Regional Water Quality Control Board (RWQCB) for a Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements for Projects Involving Discharge of Dredged and/or Fill Material to Waters of the State. Written verification of the Section 401 permit shall be submitted to the City of Winters Community Development Department. The project applicant shall be responsible for conducting all project activities in accordance with the permit provisions outlined therein.

29. **Mitigation Measure 4.4-12**

Pursuant to Winters Municipal Code Section 12.08.010, prior to the removal of any trees as part of the proposed project, the project applicant shall submit an application for review and approval to the City of Winters Tree Commission. Authority to remove trees shall be at the discretion of the City Manager, pursuant to the action taken by the Tree Commission. The application shall state the number and type of trees proposed to be removed or replaced, and other pertinent information as the City Manager finds reasonably necessary to make a fair determination of whether or not authority for the removal shall be issued.

30. **Mitigation Measure 4.4-13**

4.4-13(a) Yolo HCP/NCCP AMM3: Where natural communities and covered species habitat are present, workers will confine land clearing to the minimum area necessary to facilitate construction activities. Workers will restrict movement of heavy equipment to and from the project site to established roadways to minimize natural community and covered species habitat disturbance. The project proponent will clearly identify boundaries of work areas using temporary fencing or equivalent and will identify areas designated as environmentally sensitive. All construction vehicles, other equipment, and personnel will avoid these designated areas.

4.4-13(b) Yolo HCP/NCCP AMM4: To prevent injury and mortality of giant garter snake, western pond turtle, and California tiger salamander [It should be noted that California tiger salamander would not be potentially impacted by the proposed project], workers will cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during nonworking hours. The construction contractor will inspect open trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.

4.4-13(c) Yolo HCP/NCCP AMM5: Workers will minimize the spread of dust from work sites to natural communities or covered species habitats on adjacent lands.

4.4-13(d) Yolo HCP/NCCP AMM6: All construction personnel will participate in a worker environmental training program approved/authorized by the Conservancy and administered by a qualified biologist. The training will provide education regarding sensitive natural communities and covered species and their habitats, the need to avoid adverse effects, state and federal protection, and the legal implications of violating the FESA and NCCPA Permits. A pre-recorded video presentation by a qualified biologist shown to construction personnel may fulfill the training requirement.

4.4-13(e) Yolo HCP/NCCP AMM7: Workers will direct all lights for nighttime lighting of project construction sites into the project construction area and minimize the lighting of natural habitat areas adjacent to the project construction area.

4.4-13(f) Yolo HCP/NCCP AMM8: Project proponents should locate construction staging and other temporary work areas for covered activities in areas that will ultimately be a part of the permanent project development footprint. If construction staging and other temporary work areas must be located outside of permanent project footprints, they will be located either in areas that do not support habitat for covered species or are easily restored to prior or improved ecological functions (e.g., grassland and agricultural land). Construction staging and other temporary work areas located outside of project footprints will be sited in areas that avoid adverse effects on the following:

- Serpentine, valley oak woodland, alkali prairie, vernal pool complex, valley foothill riparian, and fresh emergent wetland land cover types.
- Occupied western burrowing owl burrows.
- Nest sites for covered bird species and all raptors, including noncovered raptors, during the breeding season.

Project proponents will follow specific AMMs for sensitive natural communities (Section 4.3.3, Sensitive Natural Communities) and covered species (Section 4.3.4, Covered Species) in temporary staging and work areas. For establishment of temporary work areas outside of the project footprint, project proponents will conduct surveys to determine if any of the biological resources listed above are present.

Within one year following removal of land cover, project proponents will restore temporary work and staging areas to a condition equal to or greater than the covered species habitat function of the affected habitat. Restoration of vegetation in temporary work and staging areas will use clean, native seed mixes approved by the Conservancy that are free of noxious plant species seeds.

4.4-13(g) To ensure avoidance and minimization of impacts to the species covered by the Yolo HCP/NCCP, which could be impacted by the project, the project applicant shall obtain coverage under the Yolo HCP/NCCP for on-site, and as may be determined necessary by Yolo Habitat Conservancy, for off-site infrastructure work, for each phase of development. In addition to payment of any applicable HCP/NCCP fees, the applicant shall implement Yolo HCP/NCCP AMMs identified in Mitigation Measures 4.4-2(a) and 4.4-2(b), 4.4-3, 4.4-4, and 4.4-5.

31. **Mitigation Measure 4.5-2**

The following requirements shall be included via notation on all project grading plans prior to the issuance of grading permits, to the satisfaction of the City of Winters Community Development Department.

In the event subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 50-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, shall be retained by the applicant to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and agency notifications are not required.

- If the professional archaeologist determines that the finding does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City and applicable landowner. The project applicant shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Work shall not resume within the no-work radius until the applicant, through consultation as appropriate and concurrence with the City, determines that the site either: 1) is not a historical resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to the City's satisfaction.

- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Yolo County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 shall be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner shall notify the NAHC, which then shall designate a Native American Most Likely Descendant (MLD) for the proposed project (Section 5097.98 of the PRC). The designated MLD shall have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of MLD, the NAHC shall mediate (Section 5097.94 of the PRC). If an agreement is not reached, the landowner shall rebury the remains where they shall not be further disturbed (Section 5097.98 of the PRC). The burial shall also include either recording the site with the

NAHC or the appropriate information center, using an open space or conservation zoning designation or easement, or recording a reinternment document with Yolo County (AB 2641). Work shall not resume within the nowork radius until the City, through consultation as appropriate, determines that the treatment measures have been completed to their satisfaction.

32. **Mitigation Measure 4.5-3**

Prior to ground disturbance activities, the project proponent shall prepare a Tribal Cultural Resources Monitoring Plan for City approval that includes the following components:

- Awareness Training – The scope, format, and timing of delivery of a contractor awareness training program to inform equipment operators and their supervisors of the procedures required by the Monitoring Plan, which includes, at a minimum, annual training for all personnel involved in project implementation. The program shall include relevant information regarding sensitive tribal cultural laws and regulations. The program shall describe appropriate avoidance and minimization measures (as described in the executed Monitoring Plan) for resources that have the potential to be located on the project site and shall outline specific actions and contacts should any potential archeological resources or artifacts be encountered. The program shall also underscore the requirement for confidentiality and culturally appropriate treatment of any finds of significance to Native American peoples and for behavior consistent with Native American Tribal values. A copy of the contractor awareness training program materials and written verification of completion of the training program shall be submitted to the City of Winters Community Development Department.

- Compliance with Applicable Laws – The Monitoring Plan shall describe applicable laws and regulations relevant to potential cultural resource finds, including specific procedures to ensure compliance during implementation.

- Reporting By Phase – The applicant shall file a written report to the City within 30 days of completion of monitoring for each monitoring phase. The report shall document compliance with the terms of the Monitoring Agreement and shall report on the nature and disposition of any cultural r- resource discoveries. Applicable requirements for confidentiality shall be observed in these reports.

- Treatment and Disposition of Cultural Items and Remains – Detailed unanticipated discovery procedures for cultural resources, unique archaeological resources, tribal cultural resources, or human remains that includes consultation with the City to ensure that any discoveries are treated in accordance with applicable state law before work can resume at the discovery location.

- Other Procedures and Requirements – Timing and procedures for other relevant actions necessary to implement the Monitoring Plan.

33. **Mitigation Measure 4.5-4**

Prior to the issuance of grading permits, the following language shall be included via notation on the grading plans, subject to review and approval by the City of Winters Community Development Department:

"Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The City of Winters Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred."

34. **Mitigation Measure 4.9-1** - Prior to work within the Caltrans right-of-way and issuance of grading permits, the project applicant shall obtain an encroachment permit from the California Department of Transportation (Caltrans) for all proposed improvements within the State Route (SR) 128 right-of-way (ROW). As part of obtaining an encroachment permit, the project applicant shall apply through the Caltrans Encroachment Permit System and submit a copy of the final improvement plans as part of the application package, showing the location and specifications of the proposed improvements to SR 128. The proposed improvements shown on the improvement plans, which shall also be subject to review and approval by the City Engineer as meeting the applicable standards of the City of Winters Design Guidelines, shall include, but not be limited to, the following:

1) At the SR 128 (East Grant Avenue)/East Main Street intersection, installation of a traffic signal, marked crosswalks, bike lane conflict markings, and bicycle intersection crossing markings. The traffic signal shall provide temporal separation between bicyclists, pedestrians, and conflicting vehicular movements (e.g., through the provision of pedestrian crossing phases). This improvement shall be completed prior to issuance of a permit for the 160th single family residential home or issuance of a permit for the commercial site known as Lot B, whichever comes first. This improvement is included as a citywide improvement project in the City's Traffic Impact Fee program and the City shall either apply fee credits or reimbursement through the City's impact fee program. Additionally, should either of the two properties bordering the future traffic signal develop in advance of the proposed project, the properties shall reimburse the proposed project for their fair share of the signal.

2) At the western project site boundary, the construction of a roundabout with marked crosswalks and physical separation between bicyclists and vehicles. The roundabout shall reduce approach speeds for vehicular traffic and enable crossing pedestrians to negotiate conflicting vehicular traffic, one direction at a time (i.e., through the provision of pedestrian refuge areas/splitter islands). This improvement is included as a citywide improvement project in the City's Traffic Impact Fee program. Accordingly, payment of the requisite impact fee to the City's fee program shall fulfill the project's mitigation obligation for this improvement.

3) Construction of new bicycle facilities on SR 128 according to standards set forth in the Caltrans Highway Design Manual. The required Class I shared-use path on the northern edge of SR 128, along the project site's southern boundary, shall include a minimum paved width of eight feet, plus two-foot shoulders of unobstructed all-weather surface on each side of the path. The provision of the proposed 12-foot path shall also satisfy the applicable Caltrans design requirements. The design of the bicycle facilities shall be submitted to Caltrans and the City of Winters for review and approval.

4) Improvements of equal effectiveness as determined by the City Engineer.

Written verification of the encroachment permit shall be submitted to the City of Winters Community Development Department. The project applicant shall conduct all project activities in accordance with the permit provisions outlined therein.

35. **Mitigation Measure 4.9-2** - Prior to issuance of the first building permit in the first phase of development, the applicant shall, to the extent feasible, implement transportation demand management (TDM) strategies to reduce the number of vehicle trips that would be generated by both the residential and commercial components of the project. The TDM program shall be submitted to the City Public Works Department for review and approval. Potential TDM strategies range from site design characteristics to on-going parking management and commute travel programs. The California Air Pollution Control Officers Association (CAPCOA) Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity identifies numerous TDM strategies and quantifies their potential vehicle trip reduction effects. Potential strategies that could be applicable to the project include:

    1. Increase residential density;
    2. Increase job density;
    3. Provide transit-oriented development;
    4. Implement commute trip reduction program;
    5. Implement commute trip reduction marketing;
    6. Provide ridesharing program;
    7. Provide end-of-trip bicycle facilities;
    8. Limit residential parking supply;

9. Unbundle residential parking costs from property costs;
10. Improve street connectivity;
11. Construct or improve bike boulevard;
12. Implement carshare program; and/or
13. Implement community-based travel planning.

36. **Mitigation Measure VII-a -** VII-1. Prior to issuance of grading permits, a design-level Geotechnical Engineering Investigation shall be prepared to evaluate the proposed project's potential effects related to geologic hazards, including, but not limited to, expansive soils, liquefaction, and subsidence/settlement. The City Engineer shall verify that all geotechnical recommendations specified in the design-level Geotechnical Engineering Investigation prepared for the project are properly incorporated in the project design.

37. **Mitigation Measure IX-b** - IX-1. Prior to the initiation of ground-disturbing activities associated, the project applicant shall complete testing of on-site soils and groundwater. The testing shall be tested for organochlorine pesticides (OCPs) in accordance with U.S. Environmental Protection Agency (USEPA) Method 8081A. Soil determined to be hazardous through analytical testing shall be transported and disposed of at a permitted Class II hazardous facility with established Waste Discharge Requirements (WDRs) with the Central Valley Regional Water Quality Control Board (RWQCB). Groundwater determined to be hazardous through analytical testing shall be transported and disposed of at a permitted facility. Hazardous waste shall be transported to disposal under a hazardous waste manifest.

    If soil and groundwater are determined to be hazardous by exceeding the USEPA Regional Screening Level for residential exposure scenarios, the soil and/or groundwater shall be transported and disposed of at a Class I facility permitted by the California Department of Toxic Substances Control. Hazardous waste shall be transported to disposal by a licensed hazardous waste hauler under a uniform hazardous waste manifest.

    The results of soil and/or groundwater sampling and analysis, as well as verification of proper remediation and disposal, shall be submitted to the City's Community Development Department for review and approval.

    IX-2. Prior to Improvement Plan approval, the project applicant shall contract a licensed geologist with the State of California to complete a site reconnaissance for any on-site wells. In the event on-site wells are not identified, no further mitigation shall be required. If an on-site well is identified, the project applicant shall hire a licensed well contractor to obtain a well abandonment permit from the Yolo County Environmental Health Division (YCEHD) for all on-site wells and properly abandon the on-site wells, pursuant to Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III). Verification of abandonment shall be submitted for review and approval to the City's Community Development Department.

38. **Mitigation Measure X-c** – X-1 Prior to occupancy, the project applicant shall ensure that the conditions specified in the Federal Emergency Management Agency (FEMA) Conditional Letter of Map Revision (CLOMR) have been met and a Final Letter of Map Revision (LOMR) issued by FEMA. Prior to issuance of a building permit, the Applicant must have an approved LOMR, unless otherwise approved by the Flood Plain Administrator. Evidence thereof shall be submitted for review and approval to the City's Community Development Department.

COMMUNITY DEVELOPMENT

39. The project is as described in the July 22, 2025 and August 12, 2025 Planning Commission staff reports. The project shall be constructed in substantial conformance with the plans/exhibits included in the August 12, 2025, Planning Commission staff report, except as modified by these conditions of approval. Substantive modifications to the approved plans will require a new public hearing and Planning Commission approval. This approval does not include approval of the design for the future building which must be reviewed and approved by the Planning Commission, or the design for the utility village structures which must be reviewed and approved by staff.

40. All of the mitigation measures and implementation requirements of the final approved Conditions of Approval shall be undertaken.

41. Construction activities may only occur from 7:00 am to 7:00 pm Monday through Friday (holidays excluded) in compliance with the City's Noise Ordinance. A sign shall be posted at the entrance to the construction site 24-hour contact information for noise complaints shall be provided prior to any grading.

42. Applicant shall be responsible for any additional costs associated with the processing of this project including but not limited to plan check, inspections, materials testing, construction and mitigation monitoring, and other staff review and/or oversight including staff time necessary to ensure completion/satisfaction of all conditions of approval and mitigation measures. The Applicant shall, on a monthly basis, reimburse the City for all such costs.

43. Required on-site commercial planting areas must be permanently maintained. "Maintained" includes watering, weeding, pruning, insect control, and replacement of plant materials and irrigation equipment as needed to preserve the health and appearance of plant materials for a period at least five years from installation.

44. Landscaping of commercial parking lots shall comply with Section 17.76.040(C).

45. A seven-foot (7') high masonry split-face wall shall be installed separating Lots 76-82 from Commercial Lots B1-B3. Design to be approved by the Community Development Department.

46. Applicant shall prepare architectural design guidelines (Guidelines) prior to submitting plans for any model homes. Guidelines shall include the following:

- At least fifty percent (50%) of the homes shall have either porches or balconies or both. Porches shall be a minimum of 6 feet by 12 feet exclusive of the entry area.
- Twenty-five percent (25%) of the homes shall be wrapped on all four sides with horizontal or vertical siding.
- The sides of all homes facing a public street shall be enhanced to help break up the mass.
- Homes shall include stone or other masonry veneer as an accent feature and have a mixture of concrete tile or composition shingled roofs.
- Garage doors shall have a row of windows across the top to allow in natural light, shall be compatible architecturally with the design of the home, and shall be painted to match the main body color.
- Roofs shall be a minimum of 5 and 12 pitch.
- At least one design element used on the front elevations shall be used on the other three sides of a home.

47. All park improvements shall be substantially completed by the applicant prior to issuance of 100th certificate of occupancy.

48. *"As a buffer to neighboring homes on Almond Drive to the west Lots 3, 4 ,6, 7, 9, 10 and within the Unit 2 R-1 single-family neighborhood along the westerly project boundary shall be limited to single-story homes. Two-story homes are allowed on the remaining Lots 1, 2, 5, 8, 11, 12, 13 and 14 but the second story shall have a rear yard setback of thirty (30') feet."*

FIRE SUPPRESSION

49. *FIRE* HYDRANTS:
    a. Applicant shall install one or more fire hydrants pursuant to City of Winters Public Works Department Improvement Standards. The number and location of the fire hydrants shall be determined by the Fire Chief. The installation of the fire hydrants shall comply with the specifications of the City of Winters Engineering Design and Construction Standards. Prior to hydrant approval, the water system shall be flushed to remove foreign matter in the system. All unfinished installation water mains or their appendages or openings shall be covered in such a manner that foreign matter does not enter the water system.

    b. All water lines and fire hydrant systems must be approved by the Fire Chief and operating prior to any combustibles being placed on the site. Prior to issuance of building permits, water flow must be measured and certified for adequacy by the Fire Chief. The following minimum water flows, with

20-PSI residual pressure, shall be acceptable unless otherwise determined due to the type of construction matter.

c.

Development Category	Gallons Per Min (gpm)
Single-Family Residential	1,500
Multi-Family Residential	1,500
Central Business District	2,000
Industrial and Other Business Districts	3,000

d. Other habitable buildings can require up to 3,500 gpm maximum and will be reviewed on a case-by-case basis by the Fire Chief.

e. In other areas where there are existing water system deficiencies, new development will be required to install all reasonable on-site water system improvements necessary to achieve the above fire-flow rate, however, the Fire Chief may waive full compliance with these standards until existing water system deficiencies are corrected.

50. *The* Fire Chief shall be supplied with three sets of plans for the installation of any fire hydrant system in the City of Winters. Plans are to reflect all aspects of the installation, including but not limited to the size of the City of Winters water main and the type and elevation of the fire hydrant.

51. All final plans for fire hydrant systems and private water mains supplying a fire hydrant system shall be submitted to the Fire Chief for approval prior to construction of the system. All fire protection systems and appurtenances thereto shall be subject to such periodic tests as required by the Fire Chief.

52. Any fire hydrant installed will require, in addition to the blue reflector noted in Standard Drawings, an additional blue reflector and glue kit that is to be supplied to the Winters Fire Department for replacement purposes.

53. AII construction shall conform to the most current Uniform Fire Codes, the Winters Fire Code, and section of the National Fire Codes that the Winters Fire Chief or his/her agent may find necessary to apply.

54. Any new roads capable of supporting a 75,000-pound fire apparatus must be installed and paved prior to any building construction taking place on those roads. Temporary roads may be allowed but must be approved by the Winters Fire Chief and the City Engineer.

55. Forty-eight hour advance notice shall be given to the Winters Fire Department prior to requests for site inspections during the construction period.

56. Applicant shall contact the Fire Chief prior to beginning construction for a pre-construction meeting.

57. All required fire accesses that are to be locked should be locked with a system that is approved by the Fire Chief.

58. AII food cooking operations that produce grease-laden vapors shall be protected with a UL300 fire suppression system.

59. Emergency fire apparatus shall be provided to within 150 feet of all sides of all buildings.

60. Vegetation within three feet (3') of a fire hydrant shall be maintained at a maximum height of six inches (6").

61. Turning radiuses within the development shall be of a standard in effect at the time of improvement plans submittal, jointly agreed to by the City Engineer and Fire Chief.

62. All structures shall have fire suppression systems meeting or exceeding NFPA 13 and local Fire Department standards. All structures shall have fire alarm systems meeting or exceeding the National Fire Alarm Code and local Fire Department standards.

63. Applicant shall submit three (3) sets of plans for each fire suppression sprinkler system to the Fire Department for review and approval prior to the issuance of each building permit.

64. Water laterals shall be appropriately sized to accommodate sufficient water flows for fire suppression sprinkler systems.

65. Applicant may be required to install individual fire department connections for each building; the Fire Chief shall make this determination. Each fire department connection shall be installed with a Knox-box approved by the Fire Chief and locking hardware for all control valves.

66. All commercial address numbering shall be clearly visible from East Grant Avenue, East Main Street and/or Street A. All buildings shall be identified by either four (4) inch high illuminated numbers or six (6) inch non-illuminated numbers on contrasting colors. Each building will have its own distinct numbering.

67. Address numbering including that for individual apartment units shall be completed by a committee comprised of the Community Development Department, the Winters Fire Department, the Police Department, and the U.S. Postal Service.

68. Vehicle access gates shall provide a minimum 20-foot (20') wide opening. All gates shall have a Knox box or other means to allow for emergency vehicle access.

POLICE

69. For the commercial sites, security lighting with motion sensors or acceptable alternative shall be provided at entry points into the main buildings.

70. For the commercial site, a plan for on-site motion activated surveillance cameras, if deemed necessary by the police department, is required prior to issuance of building permit. Plan shall be submitted for approval by the police department and implemented by the applicant.

71. Stop signs shall be installed at all of the side streets connecting to East Main Street. Stop signs shall also be installed where Street A connects to Broadview Lane, where Streets C, D and E intersect B street, where Street E intersects Street G and street B intersects Street F.

ENGINEERING AND PUBLIC WORKS

General Review Conditions:

72. Improvement plans shall be prepared for all improvements within the public right-of-way, for approval by the City Engineer. Improvements that will be owned and maintained by the City (streets, utilities, drainage channel, etc.) shall be on a separate set of civil plans from the on- site (private) improvements.

73. All work within the public right-of-way or easement shall comply with the City of Winters Public Works Improvement Standards and Construction Specifications, subject to the approval of the City Engineer

74. Proposed improvements, including but not limited to, grading, streets, utilities, and landscape have not been reviewed in detail and are not approved at this time. The City Engineer shall review the improvement plans for conformance with applicable codes, standards, and these Conditions of Approval. The Applicant shall revise and resubmit the improvement plans based upon comments provided by the City Engineer.

75. An encroachment permit from Caltrans is required for all work performed in the State right-of-way along East Grant Avenue (Hwy. 128).

76. Permits required by other agencies having jurisdiction must be acquired prior to issuance of grading permit.

77. All perimeter parcels and open space shall be protected against surface runoff from project, in a manner acceptable to the City Engineer.

78. Landscaping and irrigation plans shall be prepared by a licensed landscape architect, and included as part of the improvement plans and/or site plans. These plans shall be subject to review and approval by the City.

79. Access is prohibited along the northern property line unless established with the existing property owner in advance. Construction of the Farmstead project shall be completed without access to/from the property along the northern border.

80. Grading shall be done in accordance with a grading plan prepared by the Applicant's civil engineer and approved by the City Engineer. The grading plans shall be included in the improvement plans. If a separate Grading Permit is desired, the plans shall be submitted for review and approval to the Building Official with a permit application.

81. A soils and geotechnical report have been submitted. The improvement plans shall be approved and signed by the geotechnical engineer prior to approval by the City.

82. Joint trench/utility/composite plans shall be submitted to the City Engineer for review, prior to approval of improvement plans. Applicant shall provide design and construction for conduit and boxes suitable for broadband internet service

within the joint trench. The conduit shall be coordinated with all other utilities and shown on the joint trench composite plans. The conduit and boxes are to be constructed with the joint trench and completed before certificate of occupancy is issued.

83. Applicant shall enter into a Public Improvement and Maintenance Agreement with the City, prior to approval of the plans.

84. Applicant shall be responsible for complying with all permitting requirements from federal, state, or other local agencies.

85. Landscaped slopes along streets shall not exceed 4:1; exceptions shall require approval of the City Engineer. Level areas having a minimum width of one (1) foot shall be required at the toe and top of said slopes.

86. Existing public and private facilities damaged during the course of construction shall be repaired by the Applicant at his/her sole expense, to the satisfaction of the City Engineer.

87. All existing and proposed utilities (Electric, phone/data, and cable) shall be installed underground per the subdivision ordinance and shall meet the policies, ordinances, and programs of the City of Winters and the utility providers.

88. Occupancy of residential units shall not occur until on-site and off-site improvements have been approved by the City Engineer, Fire Chief, Police Chief, Building Official, and Community Development Director. Applicants, and/or owners shall be responsible for informing prospective buyers, lessees, or renters of this condition.

89. The applicant shall be responsible for any additional costs associated with the processing of this project including but not limited to city consultant project management, plan check and inspections, materials testing, construction monitoring, and other staff/legal review and/or oversight including staff time necessary to ensure completion/satisfaction of all conditions of approval and mitigation measures.

90. All agricultural water wells and septic tank systems found on the site shall be destroyed in accordance with Yolo County Health Department standards. The contractor shall obtain all required permits from the county.

Street Improvements:

91. All proposed roads within the subdivision shall be in substantial conformance with the approved Small Lot Tentative Subdivision Map.

92. In accordance with the Fehr & Peer's Transportation Study dated June 2024, the Applicant shall complete Highway 128 improvements to include a traffic signal (at East Main Street), project frontage improvements, pedestrian and bicycle improvements, and other improvements identified to mitigate the impacts of the project.

93. An 8-foot-wide concrete Class 1 Bike path, with 2-foot shoulders, shall be installed along Grant Avenue located within the 18-foot landscape and pedestrian easement north of the Grant Avenue Right-of Way.

94. Applicant will install a 12-foot-wide paved concrete Class 1 Bike trail along the east and south perimeter of the proposed Park parcel to tie into the bike path at the drainage channel. The bike path will act as a maintenance road for City staff to access the drainage channel. See approved Tentative Subdivision Map.

95. Improvements to the East Grant Avenue frontage of the project shall be dimensionally consistent with the cross-section as shown on the approved Tentative Subdivision Map.

96. All driveways extending from the property onto the Public right-of-way shall be constructed in accordance with the City's Public Works Improvement Standards and Construction Specifications.

97. Existing Morgan Street, south of Broadview Lane, shall be built out to the full cross section per the City Improvement standards.

98. A signage and striping plan for the public roadways is required and shall be approved by the City Engineer. All striping shall be thermoplastic.

99. A pedestrian crosswalk from Street C across East Main Street to Lot D shall be provided as approved by the Public Works Manager. Pedestrian signage to be solar with flashing beacon or similar as approved by the Public Works Department and City Engineer.

Storm Drainage and Site Grading

100. Applicant shall incorporate improvements described in the Storm Drain Assessment, dated June 28, 2024, into the improvement plans for approval.

101. A comprehensive storm drainage plan shall be prepared by a registered civil engineer for project watershed(s), including the plan area. The plan shall identify specific storm drainage design features to control increased runoff from the project site. The drainage plan shall demonstrate the effectiveness of the proposed storm drainage system to prevent negative impacts on existing downstream facilities and to prevent additional flooding at off-site downstream locations. All necessary calculations and assumptions and design details shall be submitted to the City Engineer for review and approval. The design features proposed by the applicant shall be consistent with the most recent version of the City's Storm Drainage Master Plan criteria and City Public Improvement Standards. The plan shall incorporate secondary flood routing analysis and shall include final sizing and location of on-site and off-site storm conduit channel structures. The Storm

Drainage Plan shall be submitted for approval prior to submittal of the first final map and/or construction drawings for checking.

102. A topographic survey of the entire site and a comprehensive grading and drainage plan prepared by a registered civil engineer, shall be required for the development. The plan shall include topographic information on adjacent parcels. In addition to grading information, the grading plan shall indicate all existing trees and trees to be removed as a result of the proposed development, if any.

103. The Tentative Map Grading and Drainage plan showing grading and drainage information including topographic information, drainage routing, pipe slopes and sizing and locations and excluding topographic information, and overland drainage routing are preliminary only and do not constitute approval in any way. Final approval for the Grading and Drainage Plan shall occur with the final improvements based on the requirements set forth in these conditions of approval.

104. Applicant is required to coordinate with FEMA through the City's Floodplain Administrator to apply for a CLOMR and LOMR for the project as a result of possible impacts on the adopted Flood Plain. The applicant shall obtain a CLOMR prior to approval of the Improvement Plans. The applicant shall obtain a LOMR prior to occupancy of any residential units, unless otherwise approved by the Flood Plain Administrator, which would allow occupancy with flood insurance.

105. In accordance with General Plan Policy IV.D.4, and the Flood Overlay Impact Fee Update and Nexus Study dated 14, 2020, all projects within the Flood Overlay Zone shall pay a Flood Overlay Fee (Drainage Impact Fee), as updated, that represents a fair share towards implementation of the improvements specified in the Storm Drainage Cost Allocation Report North Area, Alternative 3, prepared by Wood Rodgers. This fee shall be due prior to approval of the Final Map. The city may provide fee credits and reimbursements to developers who dedicate land or construct facilities with private financing.

106. All perimeter parcels and lots shall be protected against surface runoff from adjacent properties in a manner acceptable to the City Engineer.

107. Interim drainage improvements exist to drain flows from the adjacent Walnut 10 project. To the satisfaction of the City Engineer the interim improvements shall be maintained, and flows shall not be blocked, until permanent drainage system is installed and approved.

108. A SWPPP is required and shall be included with the improvement plans, to be approved by the City Engineer. The project shall require a National Pollution Discharge Elimination System (NPDES) construction permit.

109. The Farmstead bypass channel shall provide a minimum one (1) foot of freeboard above the 100-year hydraulic grade line consistent with City of Winters Standards.

110. The Drainage Study shall include a sheet demonstrating the >100-year storm overland release point, to meet Improvement Standards.

111. A typical section of the basin should extend across the entire basin and additional section be provided to show the typical section from east to west. Water surface elevations should be provided to show the intent with 10-year and 100-year storage areas.

112. A minimum basin depth should be provided, including freeboard, and labeled on the plan sheet. Elevations of the basin should be provided, including what appears to be an outlet culvert at the NE corner. Total retention/detention and or stormwater quality volumes should be listed including Q in vs Q out.

113. Construction equipment and engines shall be properly maintained.

114. If air quality standards are exceeded in May through October, the construction schedule will be arranged to minimize the number of vehicles and equipment operating at the same time.

115. Construction practices will minimize vehicle idling.

116. Potentially windblown materials will be watered or covered.

117. Construction areas and streets will be wet swept.

118. The project must comply with the City of Winters Grading Ordinance.

119. If fill is required, then a transportation permit shall be provided for city and Caltrans review, along with a proposed fill source, haul route, and stockpiling plan.

Farmstead Drainage Channel

120. Applicant proposes to construct and dedicate to the City for operation and maintenance a drainage channel in conformance with the Tentative Map and Drainage Master Plan, on the east side of the Farmstead property.

121. Applicant shall design and construct the culvert improvements required with the drainage channel under Grant Avenue as specified in the Drainage Master Plan. The appropriate Encroachment Permit shall be coordinated with Caltrans for these offsite improvements.

122. Applicant shall extend a 12-foot wide paved path from the East Grant Avenue Class I ped/bike path along the west side of the of the on-site Drainage Channel as shown on the approved Tentative Subdivision Map.

123. Applicant shall install an irrigation service with meter and backflow device at the

existing City water main near the proposed Timber Crest cul-de-sac. Applicant shall extend an irrigation service line, along the west side of the drainage channel right-of-way from the existing City main to the south and north ends of the channel right-of-way.

124. All maintenance roads and/or asphalt paths shall be designed for a 75,000 lbs. vehicle load.

Wastewater and Sewer Collection System

125. A Sewer Collection System Demand analysis, dated June 12, 2024, was submitted. Improvement plans shall be prepared and include final sizing and location of conveyance facilities, structures, and engineering calculations. The Applicant shall pay the cost associated with all improvements required by the plan. Reference the City of Winters Public Improvements Standards and Construction Standards for additional requirements.

126. The analysis consisted of the use of the existing Gateway SS Pump Station. If the applicant wants to change this approach, then an updated analysis is required, for review approval by the city, prior to the approval of the improvement plans.

127. Horizontal and vertical clearances between water and sewer pipes shall meet City Improvement Standards.

128. Sanitary sewer service laterals for each parcel shall meet City Improvement Standards.

129. The proposed Sewer Lift Station shall be designed with the project to maintain the required sewer demands.

130. The applicant shall obtain a Wastewater Discharge Permit from the Public Works Department prior to the issuance of a Building Permit.

131. It is Applicant's intent to pump from the Applicant's onsite sewer pump station and discharge to the manhole at Grant Avenue and E. Main Street to the E Street Lift Station. However, this has not been reviewed or approved by the City. As an alternative, the Applicant may discharge to the gravity system serving the Gateway Lift Station. If, and only if, Applicant elects to pump east to the Gateway Lift Station, the Applicant shall be responsible for paying fair share costs for the benefiting use of the existing sewer collection system, pump station on the Jordan and McClish properties that were advance funded and constructed by City.

132. Sewer Lift Station pump noise shall comply with the city's Noise Ordinance.

133. If the project conveys sewer to the existing Gateway SS Pump Station, a permanent Generator shall be provided for the Pump Station, in accordance with City's Public Works requirements, and shall be permitted, installed, and operational before occupancy of first residential unit.

Water Infrastructure

134. A Water Demand analysis was provided by Wood Rodgers, dated June 26, 2024, and it confirmed the findings in the Woodard & Currant analysis, dated September 13, 2021, that the buildout of the project would exacerbate existing fire demand deficiencies; however, the deficiency would be eliminated after full development of the City's planned Well #8, and no additional water supply improvements would be needed. Therefore, an Occupancy Permit shall not be issued until the City has commissioned and accepted Well #8.

135. At the time the Building Permit is issued, the applicant will be required to pay the appropriate City connection Fees. All domestic water services will be metered. Water meters shall be installed on all water services to the satisfaction of the City Engineer. The water meters shall comply with the specifications of the City of Winter's Engineering Design and Construction Standards. The Applicant shall also install backflow devices on all domestic and fire service lines in compliance with the specifications of the City of Winters' Engineering Design and Construction Standards. The Applicant shall obtain approval from the Public Works Department on the type, number, and location of the backflow devices.

136. Water service laterals to each residential parcel shall be 1-¼" minimum. Water service laterals to commercial sites shall be 1- ½" minimum.

137. Water laterals shall be appropriately sized to accommodate sufficient water flows for fire suppression sprinkler systems.

138. Blow off valves shall be placed at water stub locations for future services to meet City Improvement Standards.

Easements and Right of Way

139. The applicant shall facilitate, with City cooperation, the abandonment of all easements and dedications currently held but no longer necessary as determined by the Public Works Department, including the Grant of Temporary Easements for Walnut 10 EVA (dated June 16, 2022) and Walnut 10 Drainage (Dated June 16, 2022).

140. A 12.5-foot public utility easement located back of sidewalk, adjacent to all public streets within the development shall be dedicated to the City. Additional easements shall be dedicated as requested by the utility companies and approved by the City.

141. A 20-foot public utility easement located back of curb on the continuation of E. Main Street shall be dedicated to the City

142. An 18-foot landscape and pedestrian easement located at the north side of the Grant Avenue Right-of-Way shall be dedicated to the City

143. Applicant shall facilitate, with City cooperation, dedication of all public easements necessary for City-maintained facilities located outside of City-owned property or the public right-of-way, as determined by the Public Works Department. Dedications shall be in substantial conformance with the Applicant's approved Tentative Subdivision Map dated January 10, 2024.

144. Closure calculations shall be provided at the time of initial Final Map (map) check submittal. All calculated points within the map shall be based upon one common set of coordinates. All information shown on the map shall be directly verifiable by information shown on the closure calculation print out. The point(s) of beginning shall be clearly defined, and all lot acreage shall be shown and verifiable from information shown on the closure calculation print out. Additionally, the square footage of each lot shall be shown on the map. Reference the City of Winters Public Improvements Standards and Construction Standards for additional requirements.

145. Applicant shall be responsible for acquisition of all rights of way and/or easements from adjacent property owners, which are required for the construction and maintenance of off-site improvements.

146. Applicant shall provide an Irrevocable Offer of Dedication (IOD), for property within the future right of way for extension of Morgan Street north of Grant Avenue.

Construction

147. Construction activities shall be limited to 7:00 am to 7:00 pm, Monday through Friday only (holidays excluded) in compliance with the City's Noise Ordinance and Standard Specifications. The applicant shall submit a Construction Noise Control Plan for review and approval by the City prior to acceptance of final map. This plan shall address job site noise control and establish protocols for addressing noise complaints. Job site signage with 24-hour contact information for noise complaints shall be included.

148. Applicant shall contact the City 3-weeks in advance of beginning construction for a pre-construction meeting.

149. A construction notice shall be prepared by the Applicant, at least 2 weeks in advance of construction activities commencing. The notice shall provide a contact name with address, phone number and email address. The notice shall be submitted to the City for public distribution and provided to the houses along the east side of the adjacent subdivisions. Each month, a notice listing the proposed activities for the month ahead, and schedule for the activities, shall be provided to the city, for distribution.

150. Applicant shall develop and implement a Construction Traffic Management Plan to the satisfaction of the City of Winters Department of Public Works. The plan shall be submitted to the City of Winters Public Works Department and Caltrans for review prior to initiation of site disturbance.

151. All projects shall include implementation of post-construction best management practices (BMP). Post construction BMPs shall be identified on improvement plans and approved by the City Engineer.

152. A hydrant use permit shall be obtained from the Public Works Department for the use of hydrant water during the construction.

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:

THE CITY OF WINTERS
318 First Street
Winters, CA 94594
Attn: City Manager

No fee for recording pursuant to
Government Code section 27383

(Space above line for Recorder's use only)

APN: 038-005-018-000
Property Address: 29500 Russell Blvd.
Winters, CA

DEVELOPMENT AGREEMENT BY AND BETWEEN

THE CITY OF WINTERS

AND

SOUTH MARKET COURT PARTNERSHIP, L.P., AND

THE MARK AND CHRISTINE SKREDEN FAMILY TRUST U/T/A DATED SEPTEMBER 21, 1999

[FARMSTEAD]

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B Map Showing Location and Boundaries of the Property

C Farmstead Tentative Subdivision Map D Conditions of Approval

E Preliminary Phasing Plan

F Phasing Schedule

G Approved Setbacks for R2-PD Zone

DEVELOPMENT AGREEMENT

THIS DEVELOPMENT AGREEMENT ("**Agreement**") is entered into between the CITY OF WINTERS, a California municipal corporation (the "**City**"), and South Market Court Partnership, L.P., a California limited partnership, and The Mark and Christine Skreden Family Trust u/t/a Dated September 21, 1999 (collectively, "**Developer**"), on the other, under the authority of California Government Code section 65864 *et seq.* and Chapter 15.72 of the Winters Municipal Code. This Agreement is effective on the date it is recorded in the Office of the County Recorder of Yolo County. The City and the Developer are sometimes referred to herein as the Parties.

RECITALS

This Agreement is entered into based on the following facts and circumstances, among others:

A. These Recitals use certain capitalized terms that are defined in Article 1 of this Agreement. The Parties intend to refer to those definitions when a capitalized term is used but is not defined in these Recitals.

B. In order to strengthen the public planning process, encourage private participation in comprehensive planning, and reduce the economic costs and risks of development, the California State Legislature enacted the Development Agreement Statute, defined herein, which authorizes a city and a developer having a legal or equitable interest in real property to enter into a binding, long-term development agreement establishing certain development rights in property.

C. In accordance with the Development Agreement Statute, the City Council of the City of Winters adopted City Development Agreement Regulations, defined herein, which authorizes the execution of development agreements and specifies additional procedures and requirements supplementing the Development Agreement Statute.

D. The Developer is in the business of developing residential and commercial communities in Northern California, including the development of property in a manner which promotes the goals envisioned by the City for its residents. Developer is the record owner of the real property commonly known as the Farmstead Property. Accordingly, Developer has a vested interest in the Property and is a qualified applicant to file an application to enter into a development agreement pursuant to Winters Municipal Code section 15.72.050.

E. The City prepared a General Plan and a General Plan Final Environmental Impact Report that evaluated the potential environmental effects of proposed development in the City of Winters. The General Plan and General Plan Final Environmental Impact Report, together with the Master Plans for Circulation, Sewer, Water, and Drainage Systems, were adopted by the City Council on or about May 19, 1992, by Resolution No. 92-13, as modified by Resolution 92-13A.

F. Prior to the City's approval of this Agreement, the City considered Developer's applications ("**Application**") for the approvals necessary to develop the Project (see "**Project Approvals**"), more fully outlined in Section 3.4 of this Agreement, and the Agreement. City conducted duly-noticed public hearings, including a hearing pursuant to Government Code section 65867 and the City Development Agreement Regulations, reviewed and evaluated this Agreement in accordance with the Development Agreement Law, and determined that the provisions of this Agreement and its purposes are consistent with the Development Agreement Law and the goals, policies, standards and land use designations specified in the General Plan. In addition, the City evaluated the Project pursuant to CEQA, as provided in this Agreement ("**Project CEQA Documentation**"), determined that the Project CEQA Documentation adequately considered the environmental effects of the Project, and that concluded that no further analysis of the Project is required under CEQA.

G. It is the intent of the Parties in entering into this Agreement to provide a mechanism by which the City's General Plan may be implemented in a manner which provides the Developer certain rights to develop the Farmstead Property in exchange for planning and financial commitments by the Developer which will mitigate the impact of new development on the City's infrastructure and its ability to provide municipal services, while providing the City with sufficient discretionary control and police power authority to protect the health, safety, and general welfare.

H. City specifically finds, as required by the Development Agreement Law and as reflected in the Ordinance approving this Agreement, that approving this Agreement for the Project will promote orderly growth and quality development in accordance with the goals and policies set forth in the General Plan; is compatible with the uses authorized in, and the regulations prescribed for, the zoning district in which the Property is located; will promote the public convenience, general welfare, and good land use practice; will promote development which is not detrimental to the health, safety and general welfare; will not adversely affect the orderly development of property or the preservation of property value; and will promote and encourage development of the Project by providing a greater degree of requisite certainty. City also finds that the Project will provide substantial public benefits as described in this Agreement.

I. City and Developer have reached mutual agreement and desire to enter into this Agreement to facilitate development of the Project subject to the conditions and requirements set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein and other valuable consideration, the Parties hereby agree as follows:

ARTICLE 1
DEFINITIONS

Section 1.1 **Definitions.**

The following words or phrases used in this Agreement shall have the meanings set forth in this Article. All words not specifically defined shall be deemed to have their common meaning and/or the meaning generally given to such words in the parlance of the planning and development of real property in the State of California.

a. "**Agreement**" means this Development Agreement.

b. "**Application fees**" means the amount paid by the Developer for the processing of any Project Approvals or for an amendment to this Agreement.

c. "**Building Permit**" means the ministerial permit issued for the construction of a residential housing unit or other structure upon the payment of all applicable fees.

d. "**CEQA**" means the California Environmental Quality Act, codified at California Public Resources Code sections 21000 *et seq.*, together with and the guidelines that appear at Division 6, Title Division 6, Title 14, Chapter 3, sections 15000, *et seq.*, of the California Code of Regulations

e. "**City**" means the legal entity known as the City of Winters, a municipal corporation of the State of California. It includes the officers, agents, employees, bodies, and agencies of the City as the context may indicate. It also includes each person duly appointed to carry out a specific function as required in this Agreement. (*e.g.*, the term "**City Engineer**" includes the person holding that title or any other person designated by the City to perform the functions set forth in the Agreement to be performed by the City Engineer.)

f. "**City of Winters**" means the physical boundaries of the City of Winters, California.

g. "**City Development Agreement Regulations**" means the Winters Municipal Code Chapter 15.72.

h. "**City Public Works Improvement Standards and Construction Specifications**" means the City of Winters Standard Specifications dated July 2021, as amended from time to time.

i. "**Construction Code**" shall mean the current building, fire and uniform codes in effect for the City as of the Effective Date.

j. "**Conditions of Approval**" means the conditions placed on the approval of the Farmstead Subdivision Project Approvals, including the Tentative Subdivision Map. A copy of the Conditions of Approval is attached as **Exhibit D**.

k. "**County**" means the County of Yolo, State of California.

l. "**Developer**" means South Market Court Partnership, L.P., a California limited partnership, and The Mark and Christine Skreden Family Trust u/t/a Dated September 21, 1999, collectively, and/or their successor(s) in interest.

m. "**Development Agreement Law**" means the Development Agreement Statute, collectively with the City Development Agreement Regulations.

n. "**Development Agreement Statute**" means California Government Code section 65864 *et seq.*

o. "**Discretionary Approval**" means an action which requires the exercise of judgment, deliberation, or discretion on the part of the City in approving or disapproving a particular activity.

p. "**EIR**" means that certain Environmental Impact Report prepared specifically for the Property by Raney and Associates on or about January 2025.

q. "**Farmstead Property**" or the "**Property**" means the approximately 61.9 acres of real property which is the subject of this Agreement, commonly known by the address 29500 Russell Blvd., Winters, California, also known as Yolo County Assessor's Parcel Number ("**APN**") 038-050-018-000, further described in **Exhibit A** and depicted on **Exhibit B** to this Agreement.

r. "**Farmstead Subdivision**" or "**Project**" means the residential and commercial development created by the Farmstead Tentative Subdivision Map.

s. "**Farmstead Tentative Subdivision Map)**" collectively, means the tentative map, and the Conditions of Approval, approved for the Property in accordance with the Subdivision Map Act and the City's Subdivision Ordinance (Title 16 of the Winters Municipal Code). A copy of the Farmstead Tentative Subdivision Map is attached as **Exhibit C(1) and C(2)**, respectively.

t. "**Final Subdivision Map**" (collectively, "**Final Map**") means the map submitted to the City which, once approved under the City's Subdivision Ordinance (Title 16 of the Winters Municipal Code) and the Subdivision Map Act, is recorded in the Office of the County Recorder of Yolo County and legally creates the residential lots, streets, and other land use features depicted thereon.

u. "**General Plan**" means that certain General Plan, together with its Master Plans for Circulation, Sewer, Water, and Drainage Systems, adopted by the City Council on or about May 19, 1992, by Resolution No. 92-13, as modified by Resolution 92-13A and any subsequent amendments, and the 6th Cycle (2021-2029) Housing Element, adopted by the City Council on September 7, 2021 and revised on March 15, 2022 and any subsequent amendments.

v. "**Infrastructure**" means facilities constructed or to be constructed for use in accommodating residential or commercial uses on the Property.

w. "**Impact Fee**" means the amount paid by the Developer to mitigate the impacts of development of the Property and used to pay for public facilities attributable to the development project.

x. "**Inclusionary Housing Agreement**" means an agreement between the developer and the city setting forth the manner in which the inclusionary housing requirements will be met in the Project, within the meaning of Winters Municipal Code section 17.200.020.

y. "**Inclusionary Housing Plan**" means the plan setting forth the manner in which the developer proposes to satisfy the inclusionary housing requirements of Winters Municipal Code Chapter 17.200, within the Project.

z. "**Inclusionary Housing Requirement**" means the inclusionary housing requirements as specified in Winters Municipal Code section 17.200.020.

aa. "**Ministerial Approval**" means an action by the City, taken after compliance with applicable regulations and which does not require the exercise of discretion.

bb. "**Mitigation Measures**" means the requirements placed on the development of the Property to cure or lessen the environmental impact of the Project as identified in the analysis of significant environmental effects prepared for the Property under the CEQA. The Mitigation Measures are a part of **Exhibit D**, Conditions of Approval.

cc. "**Nexus Study**" means a study used as the basis for imposing an Impact Fee on new development in accordance with California Government Code section 66000 *et seq*.

dd. "**Off-site improvement**" means a public improvement constructed outside the physical boundaries of the Property.

ee. "**On-site improvement**" means a public improvement constructed within the physical boundaries of the Property.

ff. "**Party**" means either the City or the Developer, or their successors, as the context may indicate. "**Parties**" means both the City and the Developer, or their successors.

gg. "**Phase**" means a Final Map for a portion of the Farmstead Tentative Subdivision Map.

hh. "**Phasing Plan**" means the Phases planned for development of the Farmstead Property, to be developed generally in the sequence shown on the Phasing Plan. The Phasing Plan for the Farmstead Tentative Subdivision Map is attached as **Exhibit E**.

ii. "**Phasing Schedule**" means the schedule for commencement and completion of certain infrastructure in conjunction with each Phase of the Phasing Plan. The Phasing Schedule is attached as **Exhibit F**.

jj. "**Project**" means the Farmstead Subdivision.

kk. "**Project Approval(s)**" means either a Discretionary Approval or Ministerial Approval for the Farmstead Subdivision.

ll. "**Property**" means the Farmstead Property.

mm. "**Public Improvements**" means Infrastructure.

nn. "**Public Improvements Agreement**" means the agreement between the Developer and City defining the public improvements the Developer is required to build for the Project.

oo. "**Public Improvements Reimbursement Agreement**" means the agreement between the Developer and City reimbursing the Developer for the oversizing of improvements, through fees paid by Developer or other property owners at the time of development.

pp. "**State**" means the legal entity known as the State of California.

ARTICLE 2
GENERAL PROVISIONS

Section 2.1 **All Exhibits Deemed Incorporated by Reference.**

Unless specifically stated to the contrary, the reference to an exhibit by a designated letter or number shall mean that the exhibit is made a part of this Agreement.

Section 2.2 **Property to be Developed.**

The Property to be developed under this Agreement is the property commonly known in the City of Winters as the Farmstead Property, defined herein.

Section 2.3 **Agreement to be Recorded; Effective Date; Term; Enforced Delay.**

a. When fully executed, this Agreement will be recorded in the Official Records of Yolo County, pursuant to Government Code section 65868.5. This Agreement is effective on the date it is recorded in the Office of the County Recorder of Yolo County.

b. The term of this Agreement is fifteen (15) years, commencing on the date it is recorded, unless earlier terminated or extended by mutual written consent of the Parties ("**Term**"), or by Force Majeure, as defined below. If the Term is extended by consent, the Parties agree to execute, acknowledge and record a memorandum evidencing the extension.

c. Performance under this Agreement may be delayed in the following circumstances:

i. The time to perform under the Agreement shall be extended for a period equal to the period of any delay directly affecting the Project or this Agreement which is caused by any of the following ("**Force Majeure**"): war, insurrection, strikes exceeding seven (7) days, lockouts or other labor disturbances exceeding seven (7) days, riots, floods, earthquakes, fires, casualties, acts of God, acts of a public enemy, epidemics, quarantine restrictions, freight embargoes, lack of transportation, a City moratorium, court order, suits or litigation filed by unrelated third parties concerning or arising out of this Agreement, provided the Party subject to such litigation is actively mounting a defense to such litigation; unusually severe weather conditions; inability to secure necessary materials, provided that the Party claiming such an event of Force Majeure has taken reasonable action to obtain such materials on a timely basis; delays resulting from changes in Applicable laws or the imposition of a development moratorium, as defined in section 66452.6(f) of the California Government Code; subject to the limitations set forth below, and any other causes affecting the development and/or construction of the Project which are beyond the reasonable control of the Party claiming any extension of time.

ii. An extension of time for any of the above-specified causes will be deemed granted only if written notice by the Party claiming such extension is sent to the other Party within sixty (60) calendar days after Developer obtains actual knowledge of the commencement of the cause. In the event that the period of Force Majeure exceeds twelve (12) months, City and Developer shall

meet and confer in good faith regularly for the duration of the event to discuss mutually acceptable changes to the Project that will allow development of the Project to proceed to the extent possible notwithstanding the event or events causing such Force Majeure.

Section 2.4 **Equitable Servitudes and Covenants Running with the Land.**

Any successors-in-interest to the City and the Developer shall be subject to the provisions set forth in Government Code sections 65865.4 and 65868.5. All provisions of this Agreement shall be enforceable as equitable servitudes and constitute covenants running with the land. Each covenant to do, or refrain from doing, some act with regard to the development of the Property: (a) is for the benefit of and is a burden upon the Property; (b) runs with the Property and each portion thereof; and (c) is binding upon each Party and each successor-in-interest during ownership of the Property or any portion thereof. Nothing herein shall waive or limit the provisions of Section 2.5, and no successor owner of the Property, any portion of it, or any interest in it shall have any rights except those assigned to the successor by the Developer in writing pursuant to Section 2.5. In no event shall an owner or tenant of an individually completed residential or commercial unit within the Farmstead Subdivision have any rights under this Agreement.

Section 2.5 **Right to Assign; Release of Developer**

The Developer may sell, encumber, convey, assign or otherwise transfer (collectively "**assign**"), in whole or in part, the Property and/or its rights, interests and obligations under this Agreement with the consent of the City, with such consent not to be unreasonably withheld. After such assignment, the original Developer, *i.e.*, South Market Court Partnership, L.P., a California limited partnership, and The Mark and Christine Skreden Family Trust u/t/a Dated September 21, 1999, shall have no further obligations under this Agreement as to all or any such portion of the Property so assigned.

Section 2.6 **Amendment of the Agreement.**

To the extent permitted by Applicable Law, Project Approvals may, from time to time, be amended in the following manner:

a. Upon Developer's written request for an amendment or modification to the Project Approvals or Additional Approvals, the City Manager shall determine: (i) whether the requested amendment or modification is minor when considered in light of the Project as a whole; and (ii) whether the requested amendment or modification is consistent with this Agreement and Applicable Law. If the City Manager or his/her designee finds, in his or her sole discretion, that the proposed amendment or modification is minor, consistent with this Agreement and Applicable Law, and will result in no new significant impacts not addressed and mitigated in the CEQA Documentation, the amendment or modification shall be determined to be an "**Administrative Project Amendment**" and shall not require an amendment to this Agreement. Upon the City Manager's approval, any Administrative Project Amendment shall be automatically incorporated into the applicable Project Approvals and this Agreement. Without limiting the foregoing, and by way of example, after City approval of the Project Approvals, Developer requests for lot line adjustments, minor changes in improvement plans, minor changes in land uses involving minimal acreage, minor

alterations in vehicle circulation patterns or vehicle access points, minor changes in the amount of parking and parking layout, changes in pathway alignments, substitutions of comparable landscaping for any landscaping shown on any final development plan or landscape plan, variations in the location of structures that do not substantially alter the infrastructure connections or facilities and that do not substantially alter the design concepts of the Project may be treated as Administrative Project Amendments.

b. Any amendment to the Project Approvals which is determined not to be an Administrative Project Amendment as set forth in Section 2.6(a) shall be deemed a "**Major Project Amendment**." A Major Project Amendment shall be processed in the same manner and require the same approvals as the original Project Approval, including, where so required, giving of notice and a public hearing before the Planning Commission and City Council in accordance with Applicable Law. The City Manager or his or her designee shall have the authority to determine if an amendment is a Major Project Amendment subject to this Section 2.6 (b) or an Administrative Project Amendment subject to Section 2.6(a).

c. This Agreement may be amended from time to time, in whole or in part, by mutual written consent of the Parties or their successors in interest, as follows:

iii. Any amendment to this Agreement which does not substantially affect (A) the Term; (B) permitted uses of the Property; (C) provisions for the reservation or dedication of land; (D) conditions, terms, restrictions or requirements for Additional Approvals; (E) increases in the density or intensity of the use of the Property or the maximum height or size of proposed buildings; (F) monetary contributions by Developer; or (G) the provision of public benefits described herein shall be deemed an "**Administrative Agreement Amendment**" and the City Manager or his or her designee, except to the extent otherwise required by Applicable Law, may approve the Administrative Agreement Amendment without notice and public hearing.

iv. Any amendment to this Agreement which is determined not to be an Administrative Agreement Amendment as set forth in 2.6(c)(1) shall be deemed a "**Major Agreement Amendment**" and shall require giving of notice and a public hearing before the Planning Commission and City Council in accordance with Applicable Law. The City Manager or his or her designee shall have the authority in her or her sole discretion to determine if an amendment is a Major Agreement Amendment subject to this Section 2.6(c)(2) or an Administrative Agreement Amendment subject to Section 2.6(c)(1).

d. No modification, amendment or other change to this Agreement or any provision hereof shall be effective for any purpose unless specifically set forth in a writing which refers expressly to this Agreement and is signed by duly authorized representatives of both Parties or their respective successor(s)-in-interest. A copy of any change shall be provided to the City Council within thirty (30) days of its execution.

Section 2.7 **Whole Agreement; Conflict with Municipal Code.**

a. This Agreement, together with any subsequent addenda, amendments, or modifications, shall constitute the entire agreement of the Parties as to the development of the Property. All prior agreements of the Parties, whether written or oral, are of no further force or effect.

b. If there is a conflict between a specific provision of the Winters Municipal Code and a specific provision of this Agreement, this Agreement shall prevail.

Section 2.8 **Choice of Law; Venue; Attorneys' Fees; Dispute Resolution.**

a. This Agreement shall be interpreted according to the laws of the State of California. The venue for any litigation concerning its meaning shall be the Superior Court of Yolo County. The prevailing Party in such litigation, as determined by the court, shall be awarded reasonable attorneys' fees in addition to statutory costs.

b. Nothing herein shall preclude the Parties from entering into a separate agreement to resolve any matter concerning this Agreement by a method other than litigation in court, including binding arbitration.

c. With regard to any dispute involving the Project, the resolution of which is not provided for by this Agreement or Applicable Law, a Party shall, at the request of another Party, meet with designated representatives of the requesting Party promptly following its request. The Parties to any such meetings shall attempt in good faith to resolve any such disputes. In the event the Parties are unable to resolve the issue and reach an agreement within thirty (30) days, either Party may initiate non-binding mediation of the dispute by submitting a request to the other Party. The Parties will select a mutually acceptable mediator with knowledge and experience in project development and construction issues of the type at issue, within fourteen (14) days, or if unable to agree on a mediator within said period, either party may submit the matter to mediation at JAMS or other mediation service mutually acceptable to the Parties in accordance with its then applicable rules and policies, with each Party being responsible for its own fees, costs and expenses of any mediation, including fifty percent (50%) of the mediator's fees, costs and expenses The Parties will take all practicable steps to complete any mediation within ninety (90) days. Nothing in this Section 2.8 shall in any way be interpreted as requiring that Developer or City reach agreement with regard to those matters being addressed, nor shall the outcome of these meetings be binding in any way on City or Developer unless expressly agreed to in writing by the Parties to such meetings.

Section 2.9 **Notices.**

a. Formal written notices, demands, correspondence, and communications between the City and the Developer shall be given if sent to the City and the Developer by any one of the following methods:

i. Via certified U.S. Mail, return receipt requested.

ii. Via an overnight mail service of the type normally used by the business community, such as Federal Express or UPS Overnight.

iii. By facsimile, provided a "hard" copy is sent at the same time by regular U.S. Mail.

b. The written notices, demands, correspondence, and communications may be directed in the same manner to such other persons and addresses as either Party may from time to time designate. Notices to the City shall be given as follows:

City of Winters
318 First Street
Winters, CA 95694
Attn: Jeremy Craig
Telephone: (530) 795-4910 x 110
Fax: (530) 795-4935
Email: jeremy.craig@cityofwinters.org

Notices to the Developer shall be given as follows:

South Market Court Partnership, L.P.
The Mark and Christine Skreden Family Trust u/t/a Dated September 21, 1999
c/o Mark Skreden
140 James Reed
Truckee, CA 96161
Telephone: (916) 730-3300
Fax: (916) 387-1958
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Section 2.10 **City Approvals and Actions.**

Whenever a reference is made herein to an action or approval to be undertaken by City, the City Manager or his or her designee is authorized to act on behalf of the City, unless specifically provided otherwise or the context requires otherwise.

Section 2.11 **Negation of Partnership.**

The Parties specifically acknowledge that the Project is a private development, that no Party to this Agreement is acting as the agent of any other in any respect hereunder, and that each Party is an independent contracting entity with respect to the terms, covenants and conditions contained in this Agreement. None of the terms or provisions of this Agreement shall be deemed to create a partnership between or among the Parties in the businesses of Developer, the affairs of the City, or otherwise, or cause them to be considered joint venturers or members of any joint enterprise.

Section 2.12 **No Third Party Beneficiaries.**

This Agreement is made and entered into for the sole protection and benefit of the signatory Parties and their successors and assigns, including Mortgagees. No other person shall have any right of action based upon any provision in this Agreement.

Section 2.13 **Waivers**

Waiver of a breach or default under this Agreement shall not constitute a continuing waiver or a waiver of a subsequent breach of the same or any other provision of this Agreement.

Section 2.14 **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 Developer and the City. This Agreement shall inure to the benefit of and be binding upon the Parties hereto and their respective successors and assigns.

Section 2.15 **Severability.**

If any term or provision of this Agreement, or the application of any term or provision of this Agreement to a specific situation, is found to be invalid, or unenforceable, in whole or in part for any reason, the remaining terms and provisions of this Agreement shall continue in full force and effect unless an essential purpose of this Agreement would be defeated by loss of the invalid or unenforceable provisions, in which case either Party may terminate this Agreement by providing written notice thereof to the other. In the event of such termination, the provisions of Section 5.2 relating to termination of the Agreement by mutual written consent of the Parties shall apply. Without limiting the generality of the foregoing, no judgment determining that a portion of this Agreement is unenforceable or invalid shall release Developer from its obligations to indemnify the City under this Agreement.

Section 2.16 **Notice of Default to Mortgagee, Deed of Trust or other Security Interest Holders: Right to Cure.**

a. The Developer's breach of any of the covenants or restrictions contained in this Agreement shall not defeat or render invalid the lien of any mortgage or deed of trust made in good faith and for value as to the Property, or any part thereof or interest therein, whether or not said mortgage or deed of trust is subordinated to this Agreement, but the terms, conditions, covenants, restrictions and reservations of this Agreement shall be binding and effective against the holder of any such mortgage or deed of trust or any owner of the Property, or any part thereof, whose title thereto is acquired by foreclosure, trustee's sale or otherwise. Provided, however, notwithstanding anything to the contrary above, the holder of a mortgage or deed of trust, or the successors or assigns of such holder or owner through foreclosure, shall not be obligated to pay any fees or construct or complete the construction of any improvements, unless the holder or owner desires to continue development of the Property consistent with this Agreement and the Project Approvals, in which case the holder shall assume the obligations of Developer hereunder in a form acceptable to the City.

b. If City receives a notice from a Mortgagee requesting a copy of any Notice of Default given Developer hereunder and specifying the address for service thereof, then City agrees to use its diligent, good faith efforts to deliver to such Mortgagee, concurrently with service thereon to Developer, any Notice of Default given to Developer. Each Mortgagee shall have the right during the same period available to Developer to cure or remedy, or to commence to cure or remedy, the event of Default claimed or the areas of noncompliance set forth in City's Notice of Default. If a

Mortgagee is required to obtain possession in order to cure any Default, the time to cure shall be tolled so long as the Mortgagee is attempting to obtain possession, including by appointment of a receiver or foreclosure, but in no event may this period exceed one hundred twenty (120) days from the date the City delivers the Notice of Default to Developer.

c. The Parties agree that they will make reasonable amendments to this Agreement, at the expense of Developer, to meet the requirements of any lender or Mortgagee for the Project. For the purposes of this Section 2.14, a reasonable amendment is one that does not relieve Developer of any of its material obligations under this Agreement or impair the ability of the City to enforce the terms of this Agreement. The Parties further agree that any reasonable amendments to the Mortgagee protection provisions of this Agreement required to conform to current industry practice, as determined by City, would qualify as an Administrative Agreement Amendment and may be processed in accordance with the provisions of Section 2.6(c)(1) of this Agreement.

Section 2.17 **Estoppel Certificate.**

Developer or its lender may, at any time, and from time to time, deliver written notice to City requesting City to certify in writing to Developer or any Mortgagee (a) that this Agreement is in full force and effect; (b) that this Agreement has not been amended or modified or, if so amended or modified, identifying the amendments or modifications, or terminated or if terminated the subject of termination; (c) that Developer is not in Default of the performance of its obligations, or if in Default, to describe therein the nature and extent of any such Defaults; (d) those obligations under this Agreement that have been satisfied since the date of the last annual review and those obligations under this Agreement that remain unsatisfied; and (e) such other information or matters relating to this Agreement and/or the Project as may be reasonably requested by Developer. Developer shall pay, within thirty (30) days following receipt of City's invoice, the actual costs borne by City in connection with its review of the proposed estoppel certificate, including the costs of attorney review. The City Manager shall be authorized to execute any certificate requested by Developer hereunder. The form of estoppel certificate shall be in a form reasonably acceptable to the City Attorney. The City Manager shall execute and return such certificate within thirty (30) days following Developer's request therefor. Developer and City acknowledge that a certificate hereunder may be relied upon by tenants, transferees, investors, partners, bond counsel, underwriters, bond holders and Mortgagees. The request shall clearly indicate that failure of the City to respond within the thirty-day period will lead to a second and final request. Failure to respond to the second and final request within fifteen (15) days of receipt thereof shall be deemed approval of the estoppel certificate.

ARTICLE 3
DEVELOPMENT OF THE PROPERTY

Section 3.1 **Intent of Agreement.**

a. This Agreement is voluntarily entered into by Developer in order to secure the benefits hereof and a Vested Right to develop the Farmstead Property for the Project and to limit the City's right to subject the Property and Development of the Project to ordinances, policies, rules and

regulations that may be enacted in the future which conflict, supplant or are contrary to the express terms and conditions set out herein.

b. This Agreement is voluntarily entered into by City in the exercise of its legislative discretion in order to assure the implementation of the General Plan, and in consideration of the agreements and undertakings of Developer as specified in the Project Approvals, Conditions of Approval, and Mitigation Measures. The Parties are entering into this Agreement voluntarily in consideration of the rights conferred and the obligations incurred as specified herein.

Section 3.2 **Consideration.**

a. Development of the Property in accordance with the terms of this Agreement requires major investment by Developer in Public Facilities, as well as Dedications and Reservations of land for public benefit and purposes, and a substantial commitment of the resources of Developer to achieve the public purposes and benefits of the Project for the City.

b. By entering into this Agreement, City will receive such benefits, the assurances of implementation of the General Plan as applied to the Property, and the Development of the Property, which is currently vacant and/or underutilized, that will generate new tax revenues for the City. By entering into this Agreement, Developer will obtain a Vested Right to proceed with Development of the Property for the Project in accordance with the Agreement's terms and conditions and the Project Approvals may increase the value of Developer's Property.

Section 3.3 **Vested Rights of Developer.**

a. Upon the Effective Date of this Agreement, and for the term of this Agreement, unless Owner or Developer is in default under this Agreement after written notice and expiration of the cure period as set forth in Article 5 hereof, the City hereby grants to Owner and Developer a vested right to develop and construct on the Property all the improvements for the Property authorized by, and in accordance with the terms of this Agreement, the existing Regulations, including, without limitation, the Construction Codes, and the Project Approvals.

b. Development of the Property is not required by this Agreement and is wholly at the discretion of the Developer.

c. The permitted uses of the Property, the density or intensity of use, the location of uses, and the maximum height and size of proposed buildings shall be, and shall not exceed, those set forth in the existing Regulations and Project Approvals. An approved or conditionally approved tentative map may be extended pursuant to Government Code Section 66452.6.

d. Nothing herein shall prevent or preclude Developer from filing vesting tentative maps, and if one or more vesting tentative maps is/are filed, the City agrees that it shall timely process same in accordance with the Subdivision Map Act and the City's Subdivision Ordinance.

Section 3.4 **Project Approvals.**

a. The Property shall be developed in accordance with the Conditions of Approval and the following ordinances, policies and Project Approvals, all of which have been adopted or approved by the City Council:

i. The General Plan;

ii. The City of Winters Zoning Code (Winters Municipal Code Title 17)

iii. The EIR;

iv. The CEQA Documentation;

v. The City of Winters Grant Avenue Design Guidelines (adopted August 16, 2011);

vi. The Grant Avenue/SR 128/Russell Blvd. Complete Streets Concept Plan (December, 2010);

vii. This Agreement and the Ordinance approving this Agreement;

viii. Planned Development Permit and approval conditions (Permit No. 2025-____ approved on _____, 2025); and

ix. Farmstead Tentative Subdivision Map (Map No. 5174), with Findings of Fact and Conditions of Approval, on 61.9 acres creating 188 single-family lots on 39.4 acres; 5.7 acres of Medium Density Residential land; 4.4 acres of High Density Residential land; 3.3 acres of commercial land; 6.9 acres of park land; and 3.2 acres of Drainage Channel/ Open Space. (Resolution No. _____ adopted on _____).

Section 3.5 **Reserved.**

Section 3.6 **Permitted Uses.**

The permitted uses for the Property and the Project are those set forth in the Project Approvals section (above), and as generally described on the Farmstead Tentative Subdivision Map (**Exhibit C)**.

Section 3.7 **Consistency with General Plan.**

The City finds that the provisions of this Agreement and the development of the Property are consistent with and conform to the General Plan of the City of Winters.

Section 3.8 **Rights Retained by the City.**

This Agreement shall be construed to reserve to the City all power and authority to regulate the development of the Property, unless expressly limited herein. Notwithstanding any other provision of this Agreement, the following regulations and provisions shall apply to the development of the Property:

a. Application fees and charges reasonably and customarily imposed by the City to cover the City's actual costs of processing development applications or for monitoring compliance with any Project Approvals granted or issued.

b. Regulations relating to hearing bodies, petitions, applications, notices, findings, records, hearings, reports, recommendations, appeals and any other matter of procedure, provided such procedures are uniformly applied on a city-wide basis to all substantially similar types of development projects and properties.

c. Regulations governing construction standards and specifications including, without limitation, the City's building code, plumbing code, mechanical code, electrical code, fire code and grading code, and all other uniform construction codes then applicable in the City at the time of permit application.

d. City laws which may be in conflict with the Project Approvals, but which are reasonably necessary to protect the public health and safety, provided such City laws and regulations are uniformly applied on a city- wide basis to all substantially similar types of development projects and properties.

e. New City laws applicable to the Property, (i) mandated by State or federal law; (ii) required for reasons of public health, safety or welfare, based upon findings adopted by the City Council; or (iii) which do not conflict with the vested right of Developer to develop the Property in accordance with the Project Approvals described in Section 3.4 above, provided such new rules, regulations, policies, standards and specifications are uniformly applied to all substantially similar types of development projects and properties, and do not materially impact the Project.

f. Fees and charges which are in effect and collected at the time of the approval of a Final Subdivision Map or the issuance of a Building Permit, as provided in this Agreement or as generally applicable throughout the City of Winters, including, but not limited to, Impact Fees for traffic signalization, storm drainage infrastructure, sewer infrastructure, water infrastructure, and traffic and pedestrian circulation.

Developer reserves the right to protect and/or pursue a challenge in law or in equity in connection with such regulations and provisions, except as otherwise expressly provided herein.

Section 3.9 **Compliance with Laws.**

Developer, at its sole cost and expense, shall comply with the requirements of, and obtain all permits and approvals required by local, State and Federal agencies having jurisdiction over the Property or Project. Furthermore, Developer shall carry out the Project work in conformity with all Applicable Law, including applicable state labor laws and standards; Applicable City Regulations; and all applicable disabled and handicapped access requirements, including the Americans with Disabilities Act, 42 U.S.C. section 12101, *et seq.*, Government Code section 4450, *et seq.*, Government Code section 11135, *et seq.*, and the Unruh Civil Rights Act, Civil Code section 51, *et seq*.

Section 3.10 **No Conflicting Enactments.**

Except as otherwise provided in this Agreement, City shall not impose on the Project (whether by action of the City Council or by initiative, referendum or other means, including development moratorium or additional Project conditions or Approvals) any City ordinance that is in conflict with this Agreement or the Project Approvals, or once approved, the Additional Approvals. Without limiting the generality of the foregoing, except as otherwise provided herein, City shall not (a) apply to the Property any change in land use designation or permitted use, density, or intensity of development of the Property; (b) apply to the Property any change in off-site infrastructure or utility requirements or limit or control the availability of or ability to obtain public utilities, services, or facilities (c) modify or control building setbacks, square footages or heights; the location of buildings and structures; parking requirements; or grading in a manner that is inconsistent with or more restrictive than the terms included in the Project Approvals or this Agreement; or (d) limit or control the rate, timing, phasing or sequencing of the approval, development or construction of all or any part of the Project.

Section 3.11 **Changes in the Law.**

As provided in Section 65869.5 of the Development Agreement Statute, this Agreement shall not preclude the applicability to the Project of changes in laws, regulations, plans or policies, to the extent that such changes are specifically mandated and required by changes in State or Federal laws or by changes in laws, regulations, plans or policies of special districts or other governmental entities, other than the City, created or operating pursuant to the laws of the State of California ("**Changes in the Laws**"). In the event Changes in the Law prevent or preclude compliance with one or more provisions of this Agreement, the Parties shall meet and confer in good faith in order to determine whether such provisions of this Agreement shall be modified or suspended, or performance thereof delayed, as may be necessary to comply with Changes in the Law. Nothing in this Agreement shall preclude Developer from contesting by any available means (including administrative or judicial proceedings) the applicability to the Project of any such Changes in the Law.

Section 3.12 **Initiatives and Referenda.**

If any City ordinance is enacted or imposed by initiative or referendum, or by the City Council directly or indirectly in connection with any proposed initiative or referendum, that would conflict with this Agreement or reduce the development rights provided by this Agreement and the Project Approvals, the conflicting provisions shall not apply to the Project. No moratorium or other limitation (whether relating to the rate, timing, phasing, density, height or sequencing of development) affecting subdivision maps, building permits or other entitlements that are approved or to be approved, issued or granted within the City, or portions of the City, shall apply to the Project. City, except to submit to vote of the electorate initiatives and referendums required by Applicable Law to be placed on a ballot, shall not adopt or enact any City ordinance as described in this Section 3.12, or take any other action which would violate the express provisions of this Agreement or the Project Approvals or reduce the vested development rights provided by this Agreement. Developer reserves the right to challenge in court such City ordinance that would conflict with this Agreement or reduce the vested development rights provided by this Agreement. Notwithstanding the foregoing, the Parties acknowledge that City's approval of this Agreement is a legislative action subject to referendum. Developer further acknowledges and agrees that City does not have authority or jurisdiction over any other public agency's ability to grant governmental approvals or permits or to impose a moratorium or other limitation that may affect the Project.

Section 3.13 **Regulation by Other Public Agencies.**

Developer acknowledges that other public agencies not within the control of City possess authority to regulate aspects of the development of the Property separately from or jointly with City, and this Agreement does not limit the authority of such other public agencies. Developer will, at or before the time required in accordance with Developer's project and construction schedule, apply for all such other permits and approvals as may be required by other governmental or quasi-governmental entities in connection with the development of, or the provision of services to, the Project. Developer acknowledges that City does not control the amount of any fees imposed by such other agencies. In the event that such fees are imposed upon Developer and are in excess of those allowed by Applicable Law and Developer wishes to object to such fees, Developer may pay such fees under protest. City agrees not to delay issuance of permits or other Additional Approvals and entitlements under these circumstances, provided Developer provides City with proof of payment of such fees.

Section 3.14 **Other Vesting Laws Inapplicable.**

a. The Parties intend that the provisions of this Agreement shall supersede any provision of State or federal law pertaining to the vested rights of the Developer to develop the Property, whether those laws are currently in force or become effective after this Agreement is recorded. The laws in effect as referenced in the preceding sentence include, but are not limited to, provisions of the Government Code pertaining to Development Agreements (section 65864 et seq.) and Tentative Maps (section 66452 et seq.).

b. Notwithstanding Subparagraph (a), however, to the extent that a State and/or federal law becomes effective after this Agreement is recorded and it is specifically applicable to the vested rights of landowners generally in the development of their properties, such State and/or federal law shall prevail.

c. The Developer shall not make any application to develop the Property, in whole or in part, under any vesting law, unless the right to do so is specifically granted by State and/or federal law.

Section 3.15 **Commencement and Phasing of Development.**

Except as may be expressly specified in this Agreement, Developer shall have no obligation to develop the Project or any component of the Project. Without any limitation of the foregoing, since the California Supreme Court held in *Pardee Construction Co. v. City of Camarillo* (1984) 37 Cal.3d 465 that the failure of the parties therein to consider, and expressly provide for, the timing of development resulted in a later-adopted initiative restricting the timing of development to prevail over such Parties' agreement, it is the desire of the Parties to avoid that result. Therefore, notwithstanding the adoption of any initiative after the Effective Date by City's electorate to the contrary, the Parties acknowledge that, except as otherwise provided for in this Agreement, Developer shall have the vested right during the Term to develop the Project at such time as Developer deems appropriate in the exercise of its discretion, subject to the terms, requirements, and conditions of the Project Approvals, including without limitation, the requirements regarding the schedule for commencement and completion of Project construction set forth herein. For the avoidance of doubt:

a. The Developer shall have sole and absolute discretion to determine when the final map for any phase of the Farmstead Subdivision, and accompanying subdivision improvement plans, are submitted for City review and approval.

b. Developer may undertake any number of development phases of the Farmstead Subdivision in any order that Developer deems financially viable and to apply for a separate Final Map for each phase of the Subdivision. Multiple phases may be undertaken simultaneously if so desired by the Developer.

c. Developer acknowledges and agrees that the approval of a Final Map for any Phase of the Farmstead Subdivision shall be contingent upon a determination by the City that the Developer has fully complied with the terms of this Agreement in the development of the prior Phase or Phases, in addition to satisfying the other requirements imposed by State statute, City law, the Project Approvals or the Conditions of Approval.

d. While not foreseen at this time, both Developer and City recognize that the boundaries of the proposed phases are subject to minor and non-material change based on a variety of considerations. City approval of such boundary revisions shall not be unreasonably withheld, conditioned, or delayed, and shall be considered an Administrative Project Amendment within the meaning of Section 2.6.

Section 3.16 **Affordable Housing.**

a. The City's Inclusionary Housing Requirement (Municipal Code Chapter 17.200) mandates that 15% of all residential units be affordable for very low, low, and moderate income households. City and Developer acknowledge that the obligations assumed by this Section 3.16 shall fully satisfy the Inclusionary Housing Requirement for the entire Farmstead development.

b. Developer shall dedicate and donate to the City Lot H, which is approximately 4.4 acres ("**Affordable Housing Site**") Developer will deed restrict the Affordable Housing Site to use as affordable housing for at least fifty-five years (55) prior to the conveyance to the City.

c. Developer shall complete the infrastructure improvements (*e.g.*, grading, wet or dry utilities, roadway, curb & gutter, etc.) for the Affordable Housing Site, excepting the northern 100 feet along E. Main Street, which will be reserved as a construction entrance for the site's eventual developer. The Affordable Housing Site shall be created with the first final map for the Project. Infrastructure improvements to serve the Affordable Housing Site shall be installed with the first phase of infrastructure serving market-priced residential parcels.

d. Developer shall construct six (6) units on the R-3 site which shall be offered to moderate income households (as defined in Health & Safety Code Section 50093). These units shall remain affordable for a minimum period of fifty-five years (55) for rental units and forty-five (45) years for owner-occupied units. Developer shall use commercially reasonable best efforts to evenly distribute these units throughout the R-3 parcel.

j.

Section 3.17 **Installation of Public Improvements.**

Public improvements (infrastructure) in the nature of roads, sidewalks, trails, sewer, water service, third party utilities, and similar items will be constructed both on-site and off-site during the development of the Farmstead Subdivision. When the Final Map for each Phase of the Farmstead Subdivision is submitted, the Developer shall enter into a separate written agreement ("**Subdivision Improvement Agreement**") with the City by which Developer shall commit to build and dedicate to

the City or applicable public agency, the public improvements required by the Project Approvals and the Conditions of Approval. Security for the construction of the improvements shall be provided as required by State law and City law.

Section 3.18 **Property for Public Improvements; Offsite Improvements.**

a. In any instance where the Developer is required to construct any public improvement on land in which neither the Developer nor City has sufficient title or interest, the Developer shall, at its sole cost and expense, exercise commercially reasonable efforts to acquire the real property interests necessary for the construction of such public improvements.

b. In the event the Developer is unable to acquire the necessary property interest or interests, the City shall either (i) negotiate the purchase of the necessary property interests to allow Developer to construct the public improvements as required by this Agreement or the Conditions of Approval, or (ii) if necessary, in accordance with and to the extent permitted by the procedures established by State law, use its power of eminent domain to acquire the property interests. Any such acquisition by City shall be subject to City's reasonable discretion, which is expressly reserved by City, to make the necessary findings, including a finding thereby of public necessity, to acquire such interest.

c. Prior to commencing negotiations, the City may require the Developer to enter into a separate agreement to provide the funding necessary to acquire the property interests and/or to pay for the cost of any eminent domain action. Such costs include, but are not limited to, the price of the property acquired, the City's attorneys' fees, expert witness fees, jury fees, and related matters, and litigation expenses awarded by the court to the property owner against the City.

d. In no event shall Developer be compelled or otherwise required to pay more than the fair market value for land on which public improvements may be constructed.

Section 3.19 **Reimbursement for Oversizing of Public Improvements; Advanced Funding of Certain Improvements; Credit for Improvements Installed.**

a. In some instances, the Developer will be required to install public improvements to a size and/or capacity greater than that which is required to serve the residents of the Farmstead Subdivision, commonly referred to as "oversizing" improvements through a Public Improvements Agreement. In such an instance, the Developer shall be entitled to reimbursement for such oversizing of improvements from fees paid by Developer or other property owners at the time of development through a Public Improvements Reimbursement Agreement. Should reimbursement exceed one (1) year, Developer shall be reimbursed the value of the improvements plus an annual agreed upon Consumer Price Index increase.

b. There are three sources of funds from which the Developer may be reimbursed for oversizing improvements:

i. By way of a separate agreement between the City and the Developer which will provide that when a particular property benefiting from the oversizing is developed, the City will require the benefiting property owner to reimburse the Developer its *pro rata* share of the cost of the oversizing of improvements plus an annual agreed upon Consumer Price Index increase should said

reimbursement exceed one (1) year. A written agreement under this subsection (b) shall have a term of no longer than twenty-five (25) years.

ii. By way of a separate agreement between the City and the Developer which will provide that the Developer will be reimbursed from Impact Fees. Such Impact Fees shall come only from the fund into which fees for that type of improvement are made (*i.e.*, street impact fund, storm impact fund, parks & recreation impact fund, fire impact fund, police impact fund, general facilities fund, water fund, sewer impact & flood overlay fund, and/or drainage fund). As an example, and not by way of limitation, Developer will be reimbursed through Impact Fees for: (a) a portion of the widening of East Grant Avenue and the improvements; and (b) the traffic signal at the intersection of East Grant Avenue and East Main Street through the transportation impact fee. Developer is responsible for the Project's frontage improvements.

iii. Grant funds received by the City.

c. In any instance in which the oversizing of improvements is required, the City Engineer shall identify the method of reimbursement the Developer will receive. Additionally, when the Developer will receive reimbursement from a benefitted property owner, the City Engineer and Developer's engineer will determine the total cost of the improvement installed by the Developer, deduct the *pro rata* share to be borne by the Property, and determine what share of the remainder is to be reimbursed by the benefitted property. When the Developer will receive reimbursement from Impact Fees, the City Engineer shall specify in the separate agreement the amount the Developer will be reimbursed and the estimated time when that amount will be paid.

d. The Developer shall have no recourse against the City if Impact Fees paid by others are insufficient to repay the Developer for the full cost of oversizing a particular improvement, or if a benefitted property fails to reimburse the Developer. However, the Developer retains all rights against the benefiting property owners for equitable contribution. By way of illustration and not by way of limitation, Developer shall be reimbursed the drainage impact fees and park impact fees previously collected by the City from the development of the Walnut 10 property (Yolo County APN 038-050-019-000) who will benefit from the drainage improvements and park improvements that Developer will construct on Developer's property.

e. In the event the Developer installs an improvement for which a fee is normally collected at the time of the issuance of a Final Map or Building Permit, as applicable, the Developer shall receive a fee-credit against such fee up to the actual cost of the installed improvement, or the estimate for such improvement in the applicable Impact Fee Nexus Study, whichever is less, as reasonably determined by the City Engineer. The City Engineer shall have the exclusive right to interpret this section in case of any disagreements concerning its applicability..

Section 3.20 **Environmental Review; Design Review; Subsequent Discretionary Approvals.**

a. Following City's issuance of the Project Approvals and its approval of this Agreement, Developer will submit to the Planning Commission, for its approval: (i) a site plan, elevations, and schematic drawings for each product line/ commercial building as presented ("**Design Documents**").

b. In the event that, following a determination by the City Council that the Project CEQA Documentation has adequately considered the environmental effects of the Project and that no further analysis of the Project is required under CEQA (the "**CEQA Determinations**"), the proposed Project is materially modified or other circumstances arise that would require additional review of the Project pursuant to CEQA, prior to submitting an application for any modified approvals for the Project, City shall cause to be performed, at Developer's expense, any additional environmental studies required by City in connection with environmental review of the Project in accordance with CEQA. Developer acknowledges that approval or disapproval of the Project following completion of any such additional required environmental review is within the sole and absolute discretion of City without limitation by or consideration of the terms of this Agreement, and that City makes no representation regarding the ability or willingness of City to approve a materially modified Project at the conclusion of any supplemental environmental review process required by CEQA, or regarding the imposition of any mitigation measures required as a result thereof. After such review, Developer shall have the right to terminate this Agreement by delivery of written notice to City if City disapproves the Project following completion of any required supplemental environmental review or Developer determines that implementation of any additional environmental mitigation measures required as a result of such supplemental review, or the Conditions of Approval would cause development of the Project to become economically infeasible. Alternatively, Developer may elect to proceed with the Project as originally approved.

c. Certain additional land use approvals, entitlements, and permits other than the Project Approvals may be necessary or desirable for implementation of the Project ("**Additional Approvals**"). The Additional Approvals may include, without limitation, the following: amendments of the Project Approvals, demolition and grading permits, abandonments, excavation permits, building permits, design review permits, sign permits, sewer and water connection permits, encroachment permits, certificates of occupancy, lot line adjustments or lot merger, site plans, development plans, land use plans, building plans and specifications, and any amendments to, or repealing of, any of the foregoing. Except as otherwise expressly provided herein, and for the avoidance of doubt, the City shall not impose requirements or conditions upon the development and construction of the Project that are inconsistent with the Project Approvals, including the terms and conditions of this Agreement, and any Additional Approvals as may be obtained from time to time.

d. City, in approving the Project Approvals and vesting the Project through this Agreement, is limiting its future discretion with respect to the Project and Additional Approvals to determining whether the application for an Additional Approval is consistent with and meets the criteria set forth in the Applicable City Regulations, Project Approvals, and where applicable, other approvals previously granted for the Project. Subject to the foregoing, City reserves discretion to impose appropriate exactions in connection with issuance of Additional Approvals, as necessary to bring the Additional Approval into compliance with Applicable Law and the Project Approvals. At such time as any Additional Approval applicable to the Property is approved by City, then such Additional Approval shall become subject to all the terms and conditions of this Agreement applicable to Project Approvals and shall be automatically vested and treated as a "**Project Approval**" under this Agreement.

e. Developer acknowledges that City cannot begin processing applications for Additional Approvals until Developer submits complete applications on a timely basis. Developer shall use diligent good faith efforts to (i) provide to City in a timely manner any and all documents, applications, plans, and other information necessary for City to carry out its obligations hereunder; and (ii) cause

Developer's planners, engineers, and all other consultants to provide to City in a timely manner all such documents, applications, plans and other materials required under Applicable Law. It is the express intent of Developer and City to cooperate and diligently work to obtain any and all Additional Approvals.

f. Upon submission by Developer of all applicable applications, processing fees and any and all other fees and deposits for any pending Additional Approval, City shall, to the full extent allowed by Applicable Law, promptly, diligently and expeditiously, subject to City ordinances, policies and procedures regarding hiring and contracting, commence and complete all steps necessary to act on Developer's currently pending applications for Additional Approvals including: (i) providing, at Developer's expense and subject to Developer's request and prior approval, reasonable overtime staff assistance, additional staff and/or staff consultants for concurrent, expedited planning and processing of each pending application for Additional Approvals; (ii) if legally required, providing notice and holding public hearings; and (iii) acting on any such pending applications for Additional Approvals. To the greatest extent permitted by the Project Approvals or Applicable Law, Applicable Approvals will be processed administratively by City staff. Developer's obligation to pay for the processing of Additional Approvals, including staff time, materials and third-party consultants, shall be based on the City's actual out-of-pocket costs, including City's standard administrative charges.

g. The Parties acknowledge that certain Additional Approvals may require additional analysis under CEQA. Nothing contained in this Agreement is intended to prevent or limit the City from complying with CEQA. In acting on Additional Approvals, City will rely on the Project CEQA Documentation to the fullest extent permissible by CEQA as determined by City in the exercise of its independent judgment. In the event additional environmental review is required for an Additional Approval, City shall limit such additional review to the scope of analysis mandated by CEQA and shall not adopt new mitigation measures except as legally required, all as determined by the City as the lead agency under CEQA in the exercise of its independent judgment.

h. City shall cooperate with Developer, to the extent appropriate and as permitted by Applicable Law, in Developer's efforts to obtain, as may be required, Additional Approvals from other agencies, governmental, and quasi-governmental authorities, as may be applicable.

Section 3.21 **Annual Review.**

a. As required by California Government Code section 65865.1 and Chapter 15.72 of the City's Development Agreement Regulations, City and Developer shall review this Agreement and all actions taken pursuant to the terms of this Agreement with respect to the development of the Project every twelve (12) months to determine good faith compliance with this Agreement. Specifically, City's annual review shall be conducted for the purposes of determining compliance by Developer with its obligations under this Agreement and document the status of Project development.

b. The annual review shall be conducted as provided in this Section 3.21. By March 15th of each year, Developer shall provide documentation of its good faith substantial compliance with this Agreement during the previous calendar year, including a completed Annual Review Form and such other information as may reasonably be requested by the City Manager. If the City Manager finds good faith compliance by Developer with the terms of this Agreement, Developer shall be notified in writing and the review for that period shall be concluded. If the City Manager is not satisfied that Developer is performing in accordance with the terms and conditions of this Agreement, the City

Manager shall prepare a written report specifying why the Developer may not be in good faith compliance, refer the matter to the City Council, and notify Developer in writing at least thirty (30) business days in advance of the time at which the matter will be considered by the City Council. This notice shall include the time and place of the City Council's public hearing to evaluate good faith compliance with this Agreement, a copy of the City Manager's report and recommendations, if any, and any other information reasonably necessary to inform Developer of the nature of the proceeding. The City Council shall conduct a public hearing at which Developer must submit evidence that it has complied in good faith with the terms and conditions of this Agreement. Developer shall be given an opportunity to be heard at the hearing. The findings of the City Council on whether Developer has complied in good faith for the period under review shall be based upon substantial evidence in the record. If the City Council determines, based upon substantial evidence, that Developer has complied in good faith with the terms and conditions of this Agreement, the review for that period shall be concluded. If the City Council determines, based upon substantial evidence in the record, that Developer has not complied in good faith with one or more terms and conditions of this Agreement, or there are significant questions as to whether Developer has substantially complied in good faith, the City Council, at its option, may continue the hearing and may notify Developer of the City's intent to meet and confer with Developer within thirty (30) days of such determination, prior to taking further action. Following such meeting, the City Council shall resume the hearing in order to further consider the matter and to make a determination regarding Developer's good faith compliance.

c. Failure of City to conduct an annual review shall not constitute a waiver by the City of its rights to otherwise enforce the provisions of this Agreement nor shall Developer have or assert any defense to such enforcement by reason of any such failure to conduct an annual review.

d. If, at the conclusion of the annual review described in Section 3.21(b), Developer is found to be in good faith compliance with this Agreement, City shall, upon request by Developer, issue a Certificate of Compliance ("**Certificate**") to Developer stating that after the most recent annual review and based upon the information actually known to an appropriate official of City specified in such Certificate that: (a) this Agreement remains in effect (for the remainder of the Term), and (b) the Developer is not in Default of this Agreement. The Certificate shall be in a recordable form, shall contain information necessary to communicate constructive record notice of the finding of compliance, and shall state the anticipated date of commencement of the next annual review. Developer may record the Certificate at its sole cost and expense without cost or expense to City.

Section 3.22 **Compliance with Government Code Section 66006.**

As required by California Government Code section 65865(e) for development agreements adopted after January 1, 2004, the City will comply with the requirements of California Government Code section 66006 pertaining to the payment of fees for the development of the Property.

Section 3.23 **Subdivision Map Act.**

A subdivision, as defined in Government Code section 66473.7, shall not be approved unless any tentative map for the subdivision complies with the provisions of said Section 66473.7. This provision is included in this Agreement to comply with Section 65867.5 of the Government Code.

ARTICLE 4
DEVELOPMENT OBLIGATIONS

Section 4.1 **Impact Fees**

a. Developer shall pay Impact Fees in accordance with the R-1, R-2, and R-3 levels per unit and C-1 level per square foot, pursuant to the Impact Fee Schedule adopted by the City Council ("**Impact Fees**"). Impact Fees shall include fees levied in connection with water, sewer, transportation, parks, public safety, fire, general, as well as a monitoring fee.

b. The total Residential Impact Fees per unit shall be assessed at the time of building permit acquisition at the then-current amounts (currently they are (i) $26,283.55 for each of the ninety-eight (98) low density residential units; (ii) $23,111.56 for each of the ninety (90) medium density residential units , and (iii) $23,111.56 for each of the fifty- seven (57) Medium High Density units), subject to reduction as provided in this Agreement based on the construction of on-site or off-site improvements with value equivalent to that portion of the Residential Impact Fee attributable to such development, or the donation of land capable of providing affordable housing units in excess of the minimum required by the Project.

c. The total Non-Residential Impact Fees shall be assessed at time of building permit issuance at the then current amounts (currently they are $13.66 per building square foot of commercial development), subject to reduction as provided in this Agreement based on the construction of on-site or off-site improvements with value equivalent to that portion of the Commercial Impact Fee attributable to such development.

Section 4.2 **Timing of Payment of Impact Fees.**

The payment of Residential and Commercial Impact Fees imposed by the City on building permits issued by the City such that fifty (50%) percent of the Impact Fees shall be due at time of issuance of the building permit and fifty (50%) percent shall be due at time of issuance of a certificate of occupancy for each residential unit or commercial building.

Section 4.3 **Park Improvements.**

a. Through dedication of the park land to the City (as depicted in Exhibit C attached), City confirms that Developer has satisfied the Quimby Act requirement for park land dedication. This dedication shall be deemed to fully satisfy Developer's park dedication obligation as that term is defined in Section 66477 of the California Government Code

b. Developer agrees to pay park impact fees assessed at the time of building permit acquisition at the then-current amounts (currently they are Seven Thousand Three Hundred Sixty-Five and 03/100 ($7,365.03) Dollars per R-1 residential unit and $3.52 per square foot of commercial development (which fees are included within the Impact Fees identified in Section 4.1), which shall be deemed to fully satisfy Developer's park impact fee obligation (excluding development of the detention basin on park land, which shall be the responsibility of Developer).

c. The City shall be responsible for the ongoing maintenance of both the park and the linear parks through Units 1 and 2 as well as Lot F (Linear Park) once completed.

Section 4.4 **Flood Overlay Zone: Drainage Improvements**

a. Developer acknowledges that off-site drainage improvements will be necessary for the development of Farmstead. The drainage improvements currently contemplated will benefit more than just the Farmstead project and include a drainage channel, a box culvert under East Grant and improvements to the Putah Creek Outfall.

b. The drainage improvements shall be constructed prior to the construction of residential units within Phase I of the Property. They shall be constructed in accordance with the design provided and approved by the City, and in accordance with the City Public Works Improvement Standards and Construction Specifications on the Effective Date. Any changes to the design or timing of construction shall be approved in writing by the City, which approval shall not be unreasonably withheld, conditioned, or delayed. If actual costs will exceed the estimated cost set forth in subsection (b) above, the parties will either (i) cooperate on a re-design of the improvements such that the actual cost does not exceed the estimated cost, or (ii) the City may elect, in its sole and absolute discretion, to fund the difference between the actual cost and estimated cost, for construction of the improvements as initially designed.

c. City, as owner of the drainage channel south of Highway 128, warrants that they have the ability to grant entry rights into the drainage channel to Developer in order to excavate as necessary and do improvements (if necessary) to the channel's outlet to Putah Creek, such permission not to be unreasonably withheld.

d. Developer is required to pay drainage impact fees pursuant to Chapter 15.90 of the Winters Municipal Code prior to the approval of a final map. However, pursuant to Winters Municipal Code section 15.90.100, the construction of the drainage improvements and payment of associated costs by Developer shall be in lieu of the payment of any drainage impact fees otherwise required by Chapter 15.90 of the Municipal Code for the City. Costs in excess of the Drainage impact fee shall be reimbursed to Developer as described in Section 3.19 above.

e. Once completed, the Developer will grant Lot G (drainage channel) and adjacent bike trails to the City, who shall be responsible for its ongoing maintenance.

Section 4.5 **Sewer Pump Station**

a. Prior to issuance of the first certificate of occupancy of a residential or commercial unit within the first Final Map of the Farmstead Subdivision, the Developer shall fund and construct a new sewer pump station to be located on Lot D of the Farmstead Tentative Subdivision Map. The new pump station will be designed by the Developer in accordance with commercially reasonable management practices and will include a standby generator. Such design shall be proposed by the Developer and approved by the City, which approval shall not be unreasonably withheld, conditioned, or delayed.

b. Once completed, the Developer shall grant ownership of the sewer lift station parcel to City, who shall be responsible for its ongoing maintenance.

Section 4.6 **Gateway Sewer Lift Station Generator.**

a. Prior to issuance of the first certificate of occupancy of a residential or commercial unit within the Farmstead Subdivision, the Developer will design, purchase and install a standard standby generator into the Gateway Sewer Pump Station. The components will include a diesel-driven reciprocating engine generator in a City-approved sound enclosure and automatic transfer switch. Shop drawings will be provided to the City for review and approval. Labor will be provided to place, connect and test the generator to the City's satisfaction. Equipment and labor will be warrantied for one year.

b. Developer will secure all necessary air quality permits, including, but not limited to a permit from Yolo-Solano Air Quality Management District, in compliance with Section 3.20 of this Agreement.

c. The cost to design, permit, purchase, install and test the standby generator will be borne by the Developer.

d. Provided that the standby generator complies with all applicable building codes and is in substantial conformance with plans and specifications approved by the City in connection with the Project Approvals, the City shall accept delivery of the standby generator at such time as the Developer records a Notice of Completion and shall assume all ongoing operation and maintenance cost thereafter.

e. Developer will make a one-time payment, in the amount of $$8,000 to fund the integration of the generator controls into the pump station's operator interface terminal, including without limitation, the City's supervisory control and data acquisition system ("**Integration Work**"). City staff will perform all Integration Work. Integration costs in excess of the one-time payment will be borne by the City.

Section 4.7 **Water Well**

a. A fully operational water well will be constructed by others and will enhance water service to the Farmstead Subdivision and other developing properties ("**Well No. 8**").

b. Developer acknowledges and agrees that it will be required to pay water development impact fees assessed at the time of building permit acquisition at the then-current amounts (currently they are $5,410.26 (which fees are included within the Impact Fees identified in Section 4.1), which shall be used, in part, to reimburse City (and/or the developer of said well) for the costs of constructing Well No. 8. Developer's impact fees shall be tendered to the City.

Section 4.8 **Transportation and Circulation Improvements.**

a. Improvements to East Grant Avenue shall be consistent with the Grant Avenue/ SR 128/ Russell Blvd. Complete Streets Concept Plan (2010) and the CalTrans Highway Design Manual. A twelve-foot (12') sidewalk easement will be added to the existing Cal Trans right of way if

no sidewalk easement is shown in the manual. A traffic light shall be installed prior to the occupancy of the 160th single family home or issuance of a permit for the commercial site known as Lot B, whichever comes first. Prior to this time, all transportation impact fees collected shall be retained in a sinking fund account for payment to the Developer upon completion of the traffic signal.

b. Developer shall dedicate an area of approximately 2,000 square feet of land located in the northwest corner of Lot A as shown on the attached map as "Proposed I.O.D." for the future extension of Morgan Street to E. Grant Avenue.

c. City and Developer contemplate that Timbercrest Road, which is a private roadway, shall be extended in the future as a public road, and that an area of approximately 7,000 square feet of land located near the southeast corner of the Property east of the Channel may be necessary for that extension of Timbercrest Road. Developer shall convey that area of the Property as an Irrevocable Offer of Dedication, for possible future extension. When the City accepts the Offer, then fair market value will be paid for the land.

d. All remainder streets shall be as shown on the project Tentative Subdivision Map and conform to City Public Works Improvement Standards and Construction Specifications in effect on the Effective Date.

Section 4.9 **Statewide Community Infrastructure Program (SCIP)**

a. On November 5, 2024, the City approved participation in the Statewide Community Infrastructure Program ("SCIP"), a financing program offered through the California Statewide Communities Development Authority ("CSCDA") which can be used by developers to finance public infrastructure, facilities and impact fees.

b. Developer, at Developer's sole discretion, may utilize this financing mechanism if so desired.

c. Developer may apply for the financing of certain public capital improvements, facilities and impact fees (collectively, the "Acquisition Improvements") through the California Statewide Communities Development Authority (the "Authority") and its SCIP. The financing is to be accomplished through a Community Facilities District, which will be administered by the Authority under and pursuant to the Mello-Roos Community Facilities Act of 1982 – California Government Code Section 53311 and following (the "Act").

D. Under SCIP, the Authority would conduct proceedings to form the Community Facilities District and to levy special taxes within the Community Facilities District (the "Special Taxes") and issue bonds secured by the Special Taxes (the "Bonds") to fund, among other things, all or a portion of the costs of the Acquisition Improvements. The parties anticipate that, upon completion of the Acquisition Improvements, the City will acquire the constructed Acquisition Improvements.

Section 4.10 **Reserved**

Section 4.11 **School Facilities Fee**

The Developer acknowledges and agrees that the mitigation of the impact of the Farmstead Subdivision on schools within the Winters Joint Unified School District is important to the City and its residents. The Developer shall pay school impact fees prior to issuance of a building permit in the amount determined pursuant to Education Code section 17620 and Government Code section 65995 et seq., at the rate in effect at the time of building permit issuance.

ARTICLE 5
DEFAULT, REMEDIES, AND DISPUTE RESOLUTION

Section 5.1 **Application of Article.**

The Parties agree that the following provisions shall govern the availability of remedies should either Party breach its obligations under this Agreement.

Section 5.2 **Termination of Agreement.**

a. This Agreement is terminable: (i) by mutual written consent of the Parties, (ii) by either Party following an uncured default by the other Party under this Agreement, subject to the procedures and limitations set forth in this Agreement, or (iii) by virtue of performance of the Agreement by both Parties. Any obligations of indemnification and defense relating to matters arising before termination of this Agreement shall survive termination of this Agreement.

b. Except as otherwise set forth in this Agreement, if this Agreement is terminated by mutual written consent of the Parties, neither Party shall have any further rights or obligations under this Agreement. Subject to Subparagraph (d) below, each party understands that it may have sustained damages that arise, or may arise out of, or relate to the termination of this Agreement that may not be apparent and that are presently unknown. Each party waives, with respect to termination of this Agreement by mutual written consent of the Parties, any claims for all such damages. The waivers and releases in this Agreement include waivers and releases of any claims for unknown or unanticipated injuries, losses, or damages arising out of or relating to termination of this Agreement by mutual written consent of the Parties.

c. Subject to Subparagraph (d) below, each Party waives, with respect to termination of this Agreement by mutual written consent of the Parties, all rights or benefits that it has or may have under Section 1542 of the California Civil Code to the extent it would otherwise apply. Section 1542 reads as follows:

> A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor.

Nothing herein contained shall release or excuse Developer in the performance of its obligations to indemnify and defend the City as provided in this Agreement.

d. Upon completion of the Project and Developer's payment of all Impact Fees under Article 4 and Developer's completion of the requirements, obligations and payments under Article 5, or upon any earlier termination of this Agreement upon the mutual written consent of the Parties or as otherwise expressly provided herein, a written statement acknowledging Developer's satisfaction of all obligations under this Agreement or such termination, in form and content reasonably satisfactory to the Parties, shall be provided by City to be executed by the Parties and recorded by City or Developer in the Official Records.

Section 5.3 **City's Remedies.**

a. The City's remedies under this Agreement are as follows:

i. Termination of the Agreement after giving the Developer the opportunity to cure a default, as provided in subsection (b).

ii. An action for injunctive relief to preserve the physical or legal status quo of the development of the Farmstead Subdivision pending a judicial determination of the rights of the Parties in the event of a dispute between the Parties as to their rights and obligations under this Agreement.

iii. Specific performance as provided in subsection (c).

iv. An action for declaratory relief to determine the rights and obligations of the Parties under this Agreement.

v. An action for damages as provided in subsection (d).

vi. The right to withhold the issuance of any permits, including building permits, as provided in subsection (e).

b. With respect to a default by the Developer under this Agreement, the City shall:

i. First submit to the Developer a written notice of default identifying with specificity those obligations of the Developer which have not been performed. Upon receipt of the notice of default, the Developer shall promptly commence to cure the identified default(s) at the earliest reasonable time after receipt of the notice of default. The Developer shall complete the cure of the default(s) not later than thirty (30) days after receipt of the notice of default, or such longer period as is reasonably necessary to remedy the default(s), provided Developer has continuously and diligently pursued such remedy at all times until such default(s) is cured.

ii. If, after the cure period has elapsed, the City finds and determines that the Developer remains in default and the City wishes to terminate or modify this Agreement, the City Manager shall make a report to that effect to the City Council and set a public hearing before the City Council in accordance with the notice and hearing requirements of Government Code section 65868 and Section 15.72.260 of the Winters Municipal Code.

iii. If, after the public hearing, the City Council determines Developer has failed to timely cure a material breach of the obligations under this Agreement, City shall have the right to modify or terminate this Agreement.

c. The City may seek specific performance to compel the Developer to do any, or all, of the following:

i. To complete or demolish any uncompleted improvements which are located on public property or property which has been offered for dedication to the public, with the choice of whether to demolish or complete such improvements and the method of such demolition or completion of such improvements to be selected by the City in its sole discretion.

ii. To properly complete and dedicate any public improvements which are required by this Agreement.

iii. To complete, demolish or make safe and secure any uncompleted private improvements located on the Property with the choice of whether to demolish, complete or secure such private improvements and the method of such demolition, completion and securing such private improvements to be selected by the Developer in its sole discretion.

d. The City may institute an action for damages for the amount of any money owed to it under this Agreement, or the cost of performing any act required of the Developer under this Agreement, or the cost to complete any public improvements required to be installed under the final map (or any phase, if applicable) for the Farmstead Subdivision.

e. In the event of a default by Developer, or following notice of default by Developer and during the cure period specified in subparagraph b. above, the City shall have the right to refuse to issue any permits to which Developer would otherwise have been entitled pursuant to this Agreement or City ordinances, including but not limited to, building permits and certificates of occupancy, provided that such refusal shall not extend for a period of more than ninety (90) days unless the City Council, following consideration of evidence regarding the default by Developer, determines there is a reasonable basis to extend such period of refusal. This provision is in addition to and shall not limit any actions that the City may take to enforce this Agreement, the Project Approvals or the Conditions of Approval.

Section 5.4 **Developer's Remedies.**

a. The Developer's only remedies under this Agreement are as follows:

i. An action for specific performance of an obligation of the City after giving the City the opportunity to cure a default, as provided in subsection (b).

ii. An action for injunctive relief to preserve the physical or legal status quo of the development of the Farmstead Subdivision pending a judicial determination of the rights of the Parties in the event of a dispute between the Parties as to their rights and obligations under this Agreement.

iii. An action for declaratory relief to determine the rights and obligations of the Parties under this Agreement.

b. With respect to a default by the City under this Agreement, the Developer shall first submit to the City a written notice of default identifying with specificity those obligations of the City which have not been performed. Upon receipt of the notice of default, the City shall promptly commence to cure the identified default(s) at the earliest reasonable time after receipt of the notice of default and shall complete the cure of such default(s) not later than thirty (30) days after receipt of the notice of default, or such longer period as is reasonably necessary to remedy such default(s), provided that the City has continuously and diligently pursued such remedy at all times until such default(s) is cured.

c. The Developer understands and agrees that the City would not be willing to enter into this Agreement if it created any monetary exposure for damages (whether actual, compensatory, consequential, punitive or otherwise) in the event of a breach by City. For the above reasons, the Parties agree that the remedies listed in subsection (a) are the only remedies available to the Developer in the event of the City's failure to carry out its obligations hereunder. The Developer specifically acknowledges that it may not seek monetary damages of any kind in the event of a default by the City under this Agreement, and the Developer hereby waives, relinquishes and surrenders any right to any monetary remedy. The Developer covenants not to sue for, or claim any monetary remedy for, the breach by the City of any provision of this Agreement, except for attorneys' fees for actions under (a), above, and hereby agrees to indemnify, defend and hold the City harmless from any cost, loss, liability, expense or claim (including attorneys' fees) arising from or related to any claim brought by the Developer inconsistent with the foregoing waiver.

ARTICLE 6
HOLD HARMLESS AND INDEMNIFICATION

Section 6.1 **Limitation of Legal Relationship.**

a. The Parties represent and declare that this Agreement creates no partnership, joint venture, or other legal entity between them.

b. In entering into this Agreement, the City is acting under the statutory and/or police powers which it holds as a municipal corporation of the State of California and which authorize it to regulate the development of land within its boundaries and to provide for its general health, safety and welfare.

c. In entering into this Agreement, the Developer is acting in a purely private capacity as an owner of real property within the City of Winters, which property is subject to the jurisdiction of the City acting in the capacity set forth in subsection (b).

Section 6.2 **No Liability for Acts of the Developer.**

a. It is expressly understood that the development of the Farmstead Subdivision is an undertaking that may create for the Developer liability to third parties, including, but not limited to, assignees of all or part of this Agreement, buyers and lessees of residential units, building contractors

and sub- contractors, and suppliers. The Developer understands and agrees that the City would not execute this Agreement if, in so doing, it created for the City any liability to any third party.

b. Consequently, the Developer, its successors, heirs, and assigns agrees to defend, indemnify, and hold harmless the City, and all its officers, agents, and employees from any claim of injury to person or property arising out of or relating to this Agreement or the operations of the Developer in the development of Farmstead Subdivision under the terms of this Agreement.

c. Notwithstanding anything in Article 5 to the contrary, the City shall have any remedy available to it at law and/or equity to enforce the provisions of, or to collect damages for, any breach of this Section 6.2.

Section 6.3 **Duty to Defend Challenges to this Agreement.**

a. The Parties recognize that there may be third party challenges to this Agreement, relative to the content of the Agreement or the procedure used to adopt it.

b. The Parties agree to cooperate jointly to defend any action or proceeding brought to challenge this Agreement or the ordinance adopting it.

c. In the event of any such challenge, each Party shall bear its own attorneys' fees and other litigation expenses, unless the City elects to tender the defense to the Developer pursuant to subsection (e) below.

d. Should the court, in any action challenging this Agreement or the ordinance adopting it, award attorneys' fees, costs and any other litigation expenses against the City, the Developer shall be responsible for the payment of those fees, costs, and expenses, and shall hold the City harmless from any claim thereto. Developer's obligation to pay any and all fees, costs or expenses awarded against the City is not affected by City's decision to tender, or not tender, the defense of an action to the Developer.

e. Notwithstanding subsection (b), the City may, at its sole discretion, tender the defense of any action or proceeding brought to challenge this Agreement or the ordinance adopting it to the Developer, in which event the Developer shall have the sole responsibility to defend, on behalf of itself and the City, the matter.

[SIGNATURES FOLLOW]

IN WITNESS WHEREOF, City and Developer have executed this Agreement as of the Effective Date.

"DEVELOPER"

THE SOUTH MARKET COURT PARTNERSHIP, L.P.,
a California Limited Partnership,

By: SUTTER COMMERCIAL PROPERTIES,
a California corporation
Its: General Partner

_____
By: Glenn W. Sorensen, Jr.
Its: President

THE MARK AND CHRISTINE SKREDEN FAMILY TRUST U/T/A DATED SEPTEMBER 21, 1999

_____
By: Mark Skreden
Its: Co-Trustee

"CITY"

CITY OF WINTERS,
a municipal corporation

_____
By: Albert Vallecillo
Its: Mayor

CITY OF WINTERS,
a municipal corporation

_____
By: Jeremy Craig
Its City Clerk

CITY OF WINTERS,
a municipal corporation

_____
By: Ethan Walsh
Its City Attorney

LIST OF EXHIBITS

A Legal Description of the Property

B Map Showing Location and Boundaries of the Property

C Farmstead Tentative Subdivision Map

D Conditions of Approval

E Preliminary Phasing Plan

F Phasing Schedule

G Approved Setbacks for R2-PD Zone

H Approved Setbacks for R3-PD Zone

EXHIBIT A
LEGAL DESCRIPTION

The land referred to is situated in the County of Yolo, City of Winters, State of California, and is describe as follows:·

Beginning at a point on the East side of and 15 feet South from the Northeast comer of Hills Subdivision in fractional section 22, T, 8N., R, I W., M.D.B., Records, and running thence South 1977.93 feet along a fence line on the East side of Hills Subdivision and the extension thereof, to a point on the North boundary line of Rancho Rio De Los Putos; thence North 65°35' East, along the said North boundary line 1931.85 feet; thence North 0°06' West to and along a fence line 1154.55 feet to a fence comer; thence South 89°20' West, along a fence line 973.53 feet to a fence line 40.42 feet to a fence comer; thence North 0°35-1/2' East, along a fence line 40.42 feet to a fence comer; thence South 89°38 1/2' West along a fence line 784.03 feet to the point of beginning being a part of fractional section 22, T, 8N., R., I W, M.D.B. & M.

EXCEPTING THEREFROM the interest conveyed by M.F. Ormeby, et al, to Yolo County Consolidated Water Company, a Corporation, by Deed dated April 9. 1904. And recorded in Book 68 of Deeds, Page 165, Yolo County Records.

ALSO EXCEPTING THEREFROM that portion conveyed to the State of California, by Deed recorded December 21, 1959 in Book 591 of Official Records at Page 334.

ALSO EXCEPTING THEREFROM all of the oil, gas or other mineral rights owned by it in and to the subject real property, together with the exclusive right to such mineral rights as grantor, Its successors and/or assigns may deem appropriate, excluding the right to enter upon the surface of the subject property for any purposes or to use said surface for any purpose connected with the mineral rights or to drilling any well or wells from the surface of said real property pursuant to any claim or ownership of any mineral rights related to subject property. The power and authority retained in this paragraph shall run with the ownership of the mineral, as reserved in Deed from Yoloma Farms, L.P., a California limited partnership, recorded October 26, 1990, in Book 2175 of Official Records at Page 63, Instrument.

APN: 038-050-18

EXHIBIT B
MAP SHOWING LOCATION AND BOUNDARIES OF THE PROPERTY

EXHIBIT C
FARMSTEAD TENTATIVE SUBDIVISION MAP

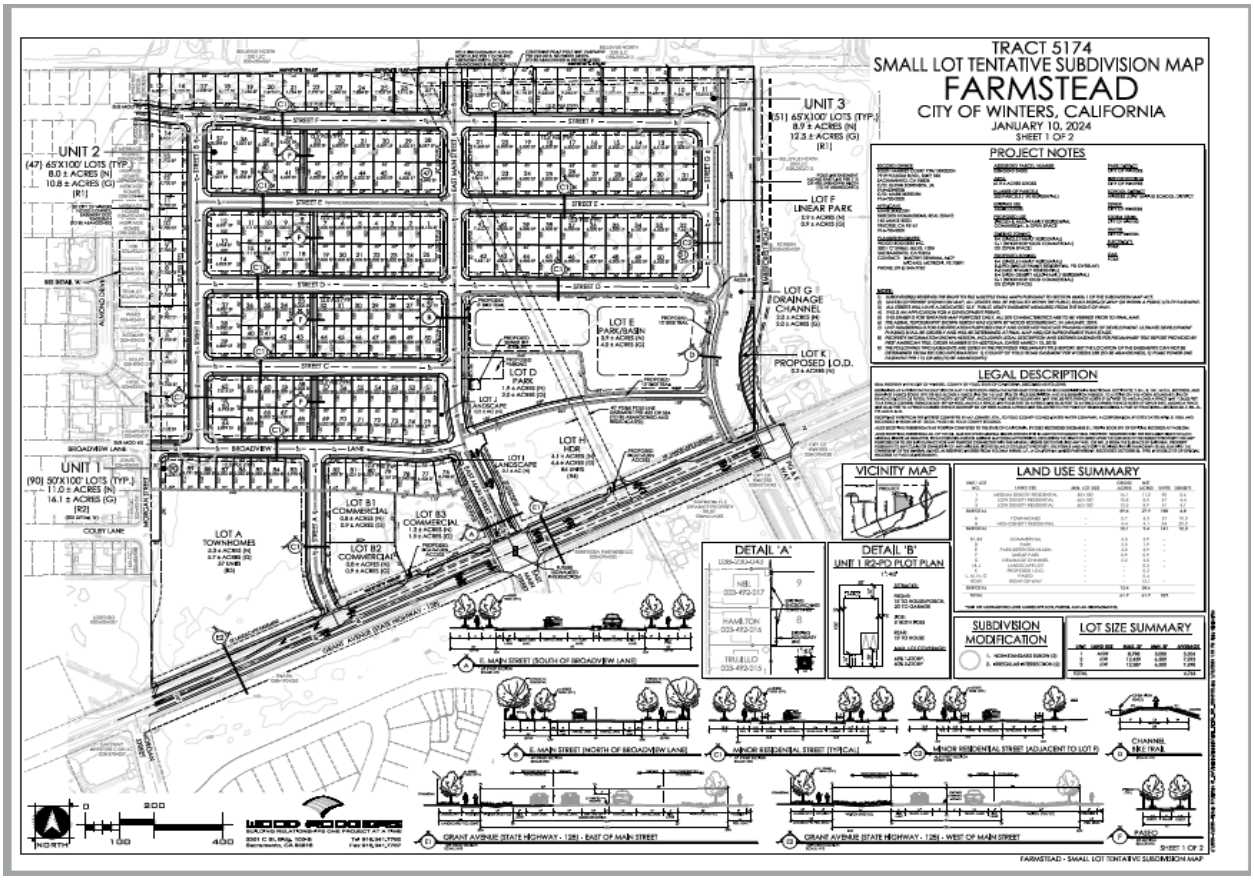


EXHIBIT D
FINDINGS OF FACT AND CONDITIONS OF APPROVAL
FOR TENTATIVE MAP NO. 5174 FOR THE FARMSTEAD RESIDENTIAL

[Insert document concurrently considered for approval with the Tentative Map]

EXHIBIT E
PRELIMINARY PHASING PLAN

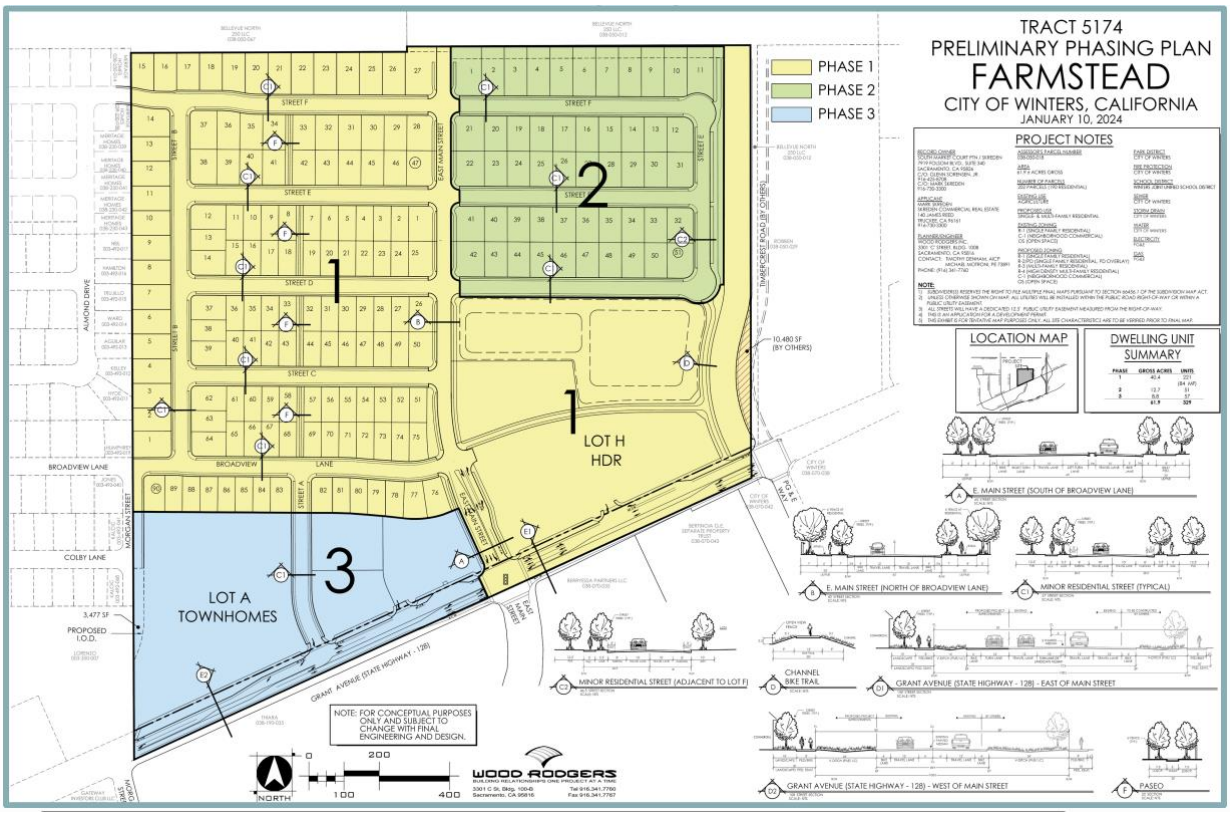


EXHIBIT F
PHASING SCHEDULE

The general phasing of Farmstead, as outlined in more detail below, is for the R-1 and R-2 (PD) single family homes and the Multi- Family Affordable Housing parcel to be developed in Phases 1 and 2 and the R-3 (PD) small lot residential townhomes and commercial properties to be developed in Phase 3. Because of the extensive drainage and sewer infrastructure improvements required to be constructed upfront, phasing of the development and Grant Avenue is essential.

First Phase:

- Rough grading of the entire site, including excavation of the Lot G Drainage Channel, deepening of the City-owned PG&E channel to the south of Grant Avenue as well as installation of an additional culvert to the existing concrete outfall located southeast of the PG&E site, and the excavation of the Lot E Park site and improvements necessary for a water quality and detention basin. The earthwork spoils will be utilized to raise the remainder of the Farmstead site in accordance with improvement plans. Pad grades will be elevated above the 100-year flood elevation at build-out and positive drainage will be established.

- The construction of pad grades and/ or a berm and weir structure at the north/northeasterly edge of the site to contain and convey the 100-year storm flows from off-site properties to the north into the Lot G Drainage Channel, and the construction of a culvert to convey these flows under Grant Avenue. The sizing of the Lot G Channel, PG&E channel, and the Grant Avenue culvert were determined by the Northeast Winters Drainage Study prepared by Wood Rodgers in 2019. A separate set of improvement plans for these drainage improvements, as well as an encroachment permit processed through Caltrans, will be required for the culvert at Grant Avenue.

- The northerly half section of the Grant Avenue improvements from the eastern edge of the site to E. Main Street for Lot H will be built in accordance with plans approved by both the City and CalTrans, including frontage improvements to the Lot H HDR site, which includes an 8’ walkway within the landscape setback.

- The Sewer Lift Station site on Lot D will collect and force wastewater from the project to the south under the proposed 10’ bike trail and under the proposed Lot F Linear Park and bike trail, and/or the Lot G Drainage Channel to a sewer stub located at the intersection of Timbercrest Road and Grant Avenue. Wastewater will gravity flow from that point to the Gateway Sewer Pump Station located within the PG&E property. Additionally, a standby generator will need to be designed, purchased and installed at Developer’s cost.

- The ultimate curb returns for the north side of the Grant Avenue and East Main Street intersection will be constructed and the intersection will be "pre-wired" for traffic signals, with a 4-way stop control installed in the interim.

- East Main Street will be constructed in its entirety through the development, excepting for the northern 100 feet of curb, gutter, sidewalk, and pedestrian/bike trail improvements on the east side of East Main Street of Lot H which will not be constructed in order to allow for construction traffic for Lot H.

- In-tract improvements for Units 1 and 2 (the R-1 and R-2 PD product) will be constructed with undergrounds and roadways, based on a subsequent tentative subdivision map or development plans submitted and approved by the builder including a connection to Broadview Lane (which will allow convenient access to Walnut Park for Phase 1 residents) and a connection to Overhouse Drive.

- The pavement and adjacent landscaping for 12' pedestrian/bike trail on the south side of the Lot D Park and the 12' pedestrian/bike trail from southeast corner of Lot D Park to Grant Avenue via Lot F Linear Parkway shall be completed.

- A masonry wall will be built behind Lots 76- 82 of Unit 1 separating the residential from the commercial.

- Necessary grading and improvements will be completed for the retail site and marketing of the retail sites will be conducted

Second Phase:

- In-tract improvements for Unit 3 (the R-1 product) will be constructed with undergrounds and roadways based on a subsequent tentative subdivision map or development plans submitted and approved by the builder.

- The 12' pedestrian/bike trail and landscaping in the Lot F linear park on the east side of Unit 3 will be completed prior to completion (occupancy) of directly adjacent homes in Unit 3.

Third Phase:

- In-tract improvements for Lot A (the R-3 PD product) will be constructed with undergrounds and roadways, based on a subsequent tentative subdivision map or development plans submitted and approved by the builder, including an IOD of approximately 2,000 square feet of land for the future extension of Morgan Street if desired by the City.

- Grant Avenue improvements west of E. Main Street for Lots A, B1, B2 and B3 will be built in accordance with plans approved by both the City and CalTrans.

- The traffic signal at the intersection of Grant Avenue and East Main Street will be installed prior to the completion (occupancy) of the 160th single family home, with reimbursement available for costs beyond a fair share allocation. The City Engineer will determine the project's fair share contribution toward the traffic signal and will determine funding.

- The Lot D Park site (including parking lot) will be constructed to provide a landscaped and irrigated green space in accordance with the approved plan. The park improvements must be completed prior to the completion (occupancy) of the 100th single family home and the issuance of the 160th building permit.

EXHIBIT G
APPROVED SETBACKS FOR R2-PD ZONE

EXHIBIT H
APPROVED SETBACKS FOR R3-PD ZONE

Affordable Housing Plan.

a. The City's Inclusionary Housing Requirement (Municipal Code Chapter 17.200) mandates that 15% of all residential units be affordable for very low, low, and moderate income households.

b. The Project has a total of 245 residential units (excluding the R-4 parcel commonly known as Lot H1 and described in Paragraph c below). Fifteen (15%) percent of the 245 units requires 36.75 inclusionary units, which is rounded up to thirty- seven (37) units.

c. To satisfy the city's Inclusionary Housing Requirement, Developer shall dedicate land to accommodate thirty- one (31) very low, low and moderate income units and build six (6) moderate income units.

d. Developer shall dedicate a portion of Lot H1 to accommodate 31 of the 37 required units. Lot H1 is a total of approximately 4.4 acres ("**Affordable Housing Site**"). The permitted density for the Affordable Housing Site under the City's Zoning Ordinance (Municipal Code Chapter 17.60) is 88 units. Using California's Density Bonus Law (Cal. Gov. Code Section 65915), the City could have the ability to build a maximum of 176 units on the Affordable Housing Site. Therefore, the dedication required is 31/ 176 x 4.4 acres, or 0.775 acres.

d. Developer is prepared to donate the remaining 3.625 acres of the Affordable Housing Site to the City at no cost. The Developer hereby donates the remaining portion of the Affordable Housing Site to the City for the exclusive purpose of developing affordable housing, with no expectation of compensation, consideration, regulatory relief, or other benefit from the City in return for this donation.

e. Developer shall construct infrastructure (*e.g.*, grading, wet or dry utilities, roadway, curb & gutter, etc.) required to serve the perimeter of the Affordable Housing Site, excepting the northern 100 feet along E. Main Street, which will be reserved as a construction entrance for the site's eventual developer.

f. At such time as an affordable housing project is constructed on the Affordable Housing Site, any affordable housing units above the thirty-one required units (hereafter referred to as **"Surplus Inclusionary Units"**) may be sold, transferred, or otherwise utilized by the affordable housing developer or its successor. If, after completion of the affordable housing project, there are Surplus Inclusionary Units, City shall have the right to sell or otherwise transfer to another developer or project any such remaining Surplus Inclusionary Units. Developer shall have no right or interest in, or claim against, any Surplus Inclusionary Units which are constructed at the Affordable Housing Site, including specifically any compensation or credit which may otherwise result.

g. If the number of units in the Project increases, any associated increase in the Inclusionary Housing Requirement shall be satisfied from any Surplus Inclusionary Units. If the

number of units changes after the date of this Agreement, so that the Inclusionary Requirement for the Project decreases, the additional units that may be constructed on the Affordable Housing Site which are not needed to satisfy the Inclusionary Housing Requirement shall be available as Surplus Inclusionary Units.

g. Developer is prepared to deed restrict the Affordable Housing Site to use as affordable housing prior to the conveyance to the City, if desired.

h. Additionally, Developer will construct six (6) units on the R-3 site which shall be offered to moderate income households (as defined in Health & Safety Code Section 50093). These units shall remain affordable for a minimum period of ten (10) years. Developer shall use commercially reasonable best efforts to evenly distribute these units throughout the R-3 parcel.

i. City and Developer acknowledge that the obligations assumed by this Section 3.16 shall fully satisfy the Inclusionary Housing Requirement (as defined in the Winters' Municipal Code Section 17.200) for the entire Farmstead development and shall serve as Farmstead's Inclusionary Housing Agreement. Developer shall not be subject to any additional fees or future City or State inclusionary housing requirements set forth in the future.