

PUBLIC REVIEW DRAFT
INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

FOR THE

HIDDEN MEADOW TERRACE PROJECT

East Sonora, CA

September 24, 2021

Prepared for:

County of Tuolumne
48 Yaney Avenue
Sonora, CA 95730

Prepared by:

BaseCamp Environmental, Inc.
802 W. Lodi Avenue
Lodi, CA 95240



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Prepared for:

COUNTY OF TUOLUMNE
Community Development Department
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Sonora, CA 95370
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TABLE OF CONTENTS

	Page
Notice of Intent	i
Negative Declaration	viii
Chapter 1.0 INTRODUCTION	1-1
1.1 Project Brief	1-1
1.2 Purpose of Initial Study	1-1
1.3 Project Background	1-2
1.4 Environmental Evaluation Checklist Terminology	1-3
1.5 Summary of Environmental Effects and Mitigation Measures	1-4
Chapter 2.0 PROJECT DESCRIPTION	2-1
2.1 Project Location	2-1
2.2 Project Details	2-1
2.3 Permits and Approvals	2-3
Chapter 3.0 ENVIRONMENTAL CHECKLIST FORM	3-1
3.1 Aesthetics	3-1
3.2 Agriculture and Forestry Resources	3-4
3.3 Air Quality	3-6
3.4 Biological Resources	3-10
3.5 Cultural Resources	3-23
3.6 Energy	3-27
3.7 Geology and Soils	3-30
3.8 Greenhouse Gas Emissions	3-36
3.9 Hazards and Hazardous Materials	3-39
3.10 Hydrology and Water Quality	3-43
3.11 Land Use and Planning	3-47
3.12 Mineral Resources	3-54
3.13 Noise	3-55
3.14 Population and Housing	3-60
3.15 Public Services	3-61
3.16 Recreation	3-65
3.17 Transportation	3-66

3.18	Tribal Cultural Resources	3-71
3.19	Utilities and Service Systems	3-74
3.20	Wildfire	3-76
3.21	Mandatory Findings of Significance	3-79
Chapter 4.0	REFERENCES	4-1
4.1.	Document Preparers	4-1
4.2	Documents Cited	4-1
4.3	Persons Consulted	4-5
Chapter 5.0	Notes Related to Evaluations of Environmental Impacts	5-1

APPENDICES

- A. Air Quality Modeling Results
- B. Biological Resource Materials
- C. Cultural Resources Technical Memorandum
- D. Transportation Analysis Memorandum
- E. Mitigation Monitoring Reporting Plan

LIST OF TABLES

1-1	Summary of Environmental Impacts and Mitigation Measures	1-10
2-1	Proposed Project Construction	2-1
3-1	Tuolumne County Attainment Status	3-7
3-2	APCD Significance Thresholds and Project Emissions	3-9
3-3	Special-Status Species Potentially Occurring in the Project Vicinity	3-12
3-4	Project Impacts on Oak Woodland	3-22
3-5	Project GHG Emissions	3-38
3-6	Project Consistency with Selected County General Plan Policies	3-49
3-7	Construction Equipment Noise	3-57

LIST OF FIGURES

1-1	Project Location Map	1-5
1-2	Street Map	1-6
1-3	USGS Map	1-7
1-4	Aerial Photo	1-8
1-5	Assessor Parcel Map	1-9
2-1	Proposed Site Plan	2-4
2-2A	Representative Building Elevations	2-5
2-2B	Representative Building Elevations	2-6
3-1	Vegetation Communities and Aquatic Resources	3-16
3-2	Oak Resources	3-17
3-3	Project Impact Areas	3-18
3-4	Soil Types	3-32

LIST OF ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

AB	Assembly Bill
APCD	Tuolumne County Air Pollution Control District
APN	Assessor's Parcel Number
ARB	California Air Resources Board
BMP	Best Management Practice
CalEEMod	California Emissions Estimator Model
CalEnviroScreen	California Communities Environmental Health Screening Tool
Cal Fire	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO ₂ e	carbon dioxide equivalent
dB	decibel
dBA	A-weighted decibel
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	U. S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
IS/MND	Initial Study/Mitigated Negative Declaration
kWh	kilowatt-hour
L _{dn}	Day-Night Average Sound Level
L _{eq}	Equivalent Sound Level
LID	Low Impact Development
LOS	Level of Service
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
PM ₁₀	particulate matter 10 micrometers or less in diameter
PM _{2.5}	particulate matter 2.5 micrometers or less in diameter
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill

SESD	Sonora Elementary School District
SR	State Route
SUHSD	Sonora Union High School District
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCFD	Tuolumne County Fire Department
TUD	Tuolumne Utilities District
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled

NEGATIVE DECLARATION

A. General Project Information

Project Title:	Hidden Meadow Terrace
Lead Agency Name and Address:	Community Development Department County of Tuolumne 48 Yaney Avenue Sonora, CA 95730
Contact Person and Phone Number:	Quincy Yaley, Community Development Director 209-533-5633
Project Location:	20080 Cedar Road North, East Sonora, California APN 044-420-037
Project Sponsor Name and Address:	Visionary Home Builders of California, Inc. 315 N. San Joaquin Street Stockton, CA 95202
General Plan Designation:	Neighborhood Commercial (NC)
Zoning:	C-O (Neighborhood Commercial)
Project Description:	The project proposes the development of an apartment complex, consisting of 72 units in four buildings, on a 5.93-acre site in the East Sonora portion of the unincorporated area. All units would be rented to lower-income family households meeting specific criteria. The project would include a community center with play areas and a sport court. The main access to the project would be provided from Greenley Road, with secondary access off Phoebe Lane. The project will require County approval of a General Plan Amendment to High Density Residential (HDR) and rezoning to R-3 (High Density Residential), along with site plan and design review approval, approval of a parking variance, and fee waivers.
Surrounding Land Uses and Setting:	The project site is undeveloped but surrounded by urban development projects in the adjacent City of Sonora and the unincorporated community of East Sonora. The site is bounded by Sonora Creek to the north, Cabezut Road to the south, Greenley Road

to the west, and Cedar Road to the east. Existing development in the project vicinity is predominantly high-density residential and commercial offices.

The project site surrounds Adventist Hospice on three sides. Land uses surrounding the project site include:

East - Tuolumne County Department of Social Services and Tuolumne County Public Health buildings.

North - Quail Hollow One apartment complex, medical office buildings.

West – Apartment buildings

South – Kingdom Hall of Jehovah’s Witnesses, office buildings.

Other Public Agencies Whose Approval is Required:

Tuolumne Utilities District (water and sewer connection)

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?

No tribes have submitted consultation requests.

B. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” prior to mitigation, as indicated by the checklist on the following pages.

	Aesthetics		Agriculture/Forestry Resources		Air Quality
✓	Biological Resources	✓	Cultural Resources		Energy
	Geology/Soils		Greenhouse Gas Emissions	✓	Hazards/Hazardous Materials
	Hydrology/Water Quality		Land Use		Mineral Resources

✓	Noise		Population/Housing		Public Services
	Recreation	✓	Transportation		Tribal Cultural Resources
	Utilities/Service Systems		Wildfire	✓	Mandatory Findings of Significance

C. Lead Agency Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

- ✓ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

COUNTY OF TUOLUMNE

Quincy Yaley, Director
Community Development Department

Date

1.0 INTRODUCTION

1.1 Project Brief

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) for the Hidden Meadow Terrace project (project). The 5.93-acre project site is located at 20080 Cedar Road North in the unincorporated community of East Sonora in Tuolumne County (Figures 1-1 to 1-5). This IS/MND has been prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). For the purposes of CEQA, Tuolumne County (County) is the Lead Agency for the project. County case numbers for the project are General Plan Amendment GPA21-003, Zone Change RZ21-010, and Site Development Permit SDP21-008.

The project applicant proposes to construct a residential apartment complex consisting of 72 units ranging in size from one to three bedrooms. The units would occupy four buildings, all three stories in height. All units are being constructed to provide affordable housing for lower-income family households. The residential complex would also include a one-story community center building space for resident recreational activities and for staff and leasing offices. Outdoor play areas and a sport court would be provided adjacent to the community center. The main vehicle access to the complex would be through a full-access driveway at Greenley Road; a secondary driveway would be provided off Phoebe Lane. The project would provide 85 on-site parking spaces. The project would connect to existing water and wastewater lines on and adjacent to the site, along with other utility lines. The project would require County approval of a General Plan Amendment, rezoning, site plan/design review, variance to parking requirements, and fee waivers.

1.2 Purpose of Initial Study

The California Environmental Quality Act (CEQA) requires that public agencies consider and document the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations).

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The Initial Study evaluates whether the project would involve "significant" environmental effects as defined by CEQA and identifies feasible mitigation measures that would avoid significant effects or reduce them to a level that would be less than significant. If the Initial Study does not identify significant effects, or if it identifies mitigation measures that would reduce all the significant effects of the project to a less-than-significant level, then the agency prepares a Negative Declaration or Mitigated Negative Declaration. If the project

would involve significant effects that cannot be readily mitigated, then the agency must prepare an Environmental Impact Report (EIR). The agency may also decide to proceed directly with the preparation of an EIR without preparation of an Initial Study.

The proposed project is a “project” as defined by CEQA and is not exempt from CEQA requirements. The County has determined that the project involves the potential for significant environmental effects and requires preparation of this Initial Study. The Initial Study describes the proposed project and its environmental setting, it discusses the potentially significant environmental effects of the project, and it identifies feasible mitigation measures that would avoid the potentially significant environmental effects of the project or reduce them to a level that would be less than significant. The Initial Study considers the project’s potential for significant environmental effects in the following subject areas:

- Aesthetics
- Agriculture 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/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

The Initial Study concludes that the project would have potentially significant environmental effects, but that recommended mitigation measures would reduce all these effects to a level that would be less than significant. As of the distribution of the IS/MND for public review, the applicant has accepted all the recommended mitigation measures. As a result, the County has prepared a Mitigated Negative Declaration and notified the public of the County’s intent to adopt the IS/MND. A copy of the County’s Notice of Intent, which indicates the time available for comment, is shown immediately inside the cover of this document.

1.3 Project Background

The Tuolumne County Housing Element, an update of which was adopted in 2019, identified several recent trends in housing in Tuolumne County as they pertain to this project (County of Tuolumne 2019):

- The County issued an annual average of 52.2 residential building permits for the period of January 1, 2014 – December 31, 2018. In Comparison, from January 1, 2007 – December 31, 2013, the annual average was 86 residential permits. In the

Third Cycle Housing Element Update (prior to the recession), from January 1, 2003 to December 31, 2006, the annual average was 417 units.

- Median home prices rose from \$219,950 in 2014 to \$289,000 in 2018.
- According to the *Out of Reach 2018* study published by the National Low Income Housing Coalition, the “housing wage” for Tuolumne County is \$18.40 (\$38,272 per year). This is the amount a household must earn in order to afford a typical two-bedroom apartment plus utilities: \$957 for rent and utilities (Two-Bedroom Fair Market Rent). This is the equivalent of 1.7 minimum wage jobs.
- 51% of renters overpay for rent and utilities. A total of 21% of renters pay more than 50% of their household income for rent and utilities. Among extremely low-income renters, earning at or below 30% of the area median income, approximately 69% pay more than 50% of their gross income for rent and utilities.

The Housing Element stated that the last bullet point is of particular concern, as extremely low-income households who are severely rent burdened have limited funds to pay for essentials such as food and utilities.

Senate Bill (SB) 330, “The Housing Crisis Act of 2019,” became effective January 1, 2020. The bill establishes a statewide housing emergency that is in effect until January 1, 2025. For the duration of the housing emergency, SB 330 provides a new preliminary application process which freezes the policies, standards, and fees in effect when a Preliminary Application Form is deemed complete. The purpose of the preliminary application is to collect specified site and project information to determine the zoning, design, subdivision, and fee requirements that will apply to the housing development project throughout the review and entitlement process. The expedited permitting process under SB 330 is available to all housing development projects that require discretionary review, including any residential development, mixed use projects with a minimum of two-thirds of development square footage designated for residential use, and transitional or supportive housing projects. The project applicant, Visionary Home Builders, is requesting that the County review and approve the project in accordance with SB 330 and has submitted information to the County, including a Preliminary Application, pursuant to SB 330 requirements. The County deemed the SB 330 application complete on July 6, 2021.

1.4 Environmental Evaluation Checklist Terminology

The project’s potential environmental effects are evaluated in the Environmental Evaluation Checklist shown in Chapter 3.0 and summarized in Table 1-1 at the end of this chapter. The Checklist includes a list of environmental considerations against which the project is evaluated. For each question, the County determines whether the project would involve: 1) a Potentially Significant Impact, 2) a Less Than Significant Impact with Mitigation Incorporated, 3) a Less Than Significant Impact, or 4) No Impact. Based on CEQA Guidelines Appendix G, these impact categories are defined as follows:

A Potentially Significant Impact occurs when there is substantial evidence that the project could involve a substantial adverse change to the physical environment (i.e.,

that the environmental effect may be significant) and mitigation measures have not been defined that would reduce the impact to a less than significant level. If there are one or more Potentially Significant Impact identified in the Initial Study, an EIR must be prepared before the CEQA process can be completed.

An environmental effect that is Less Than Significant with Mitigation Incorporated is a Potentially Significant Impact that can be avoided or reduced to a level that is less than significant with the application of mitigation measures recommended in the Initial Study.

A Less Than Significant Impact occurs when the project would involve effects in an area of environmental concern, but the project would not involve a substantial adverse change to the physical environment, and no mitigation measures are required.

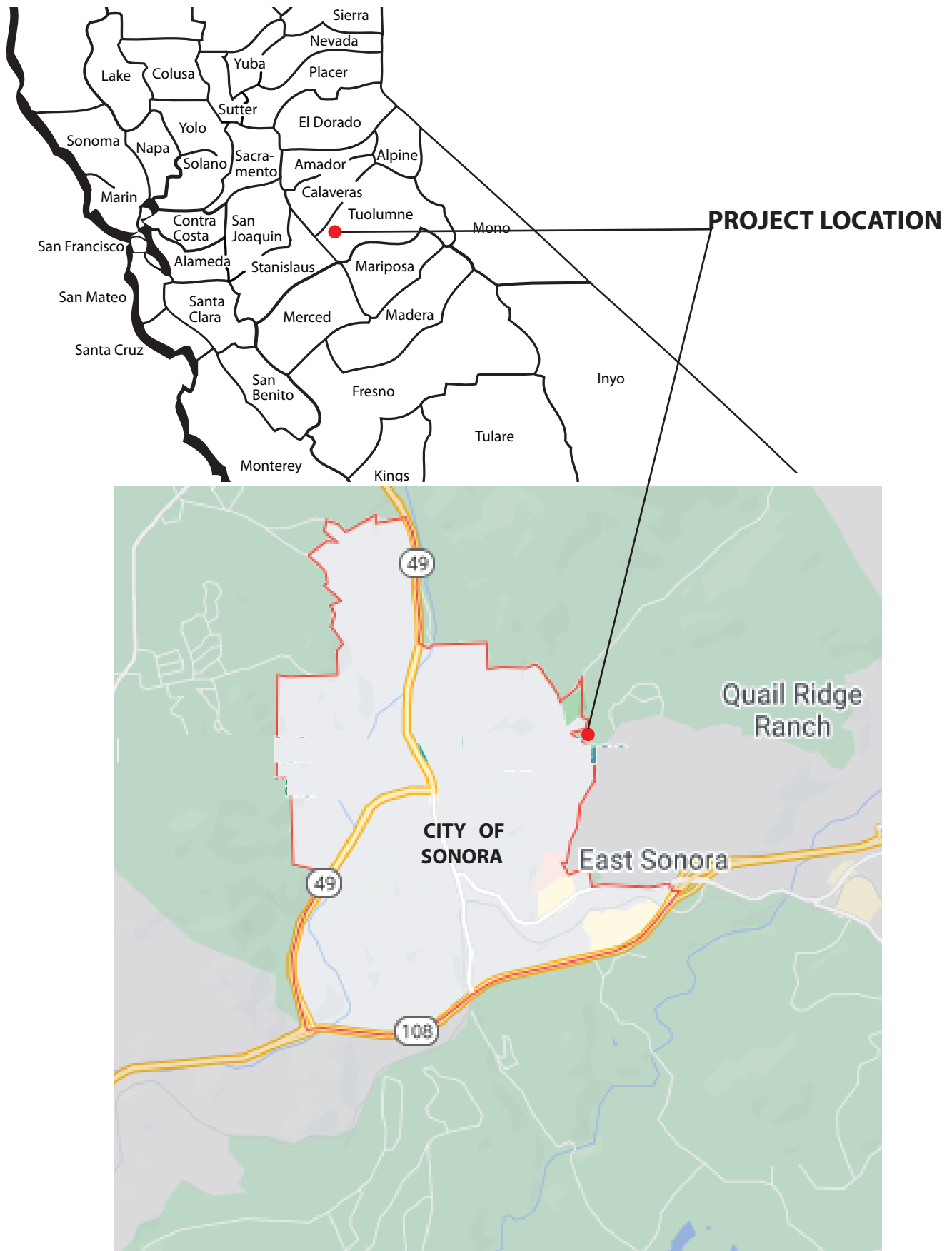
A determination of No Impact is self-explanatory.

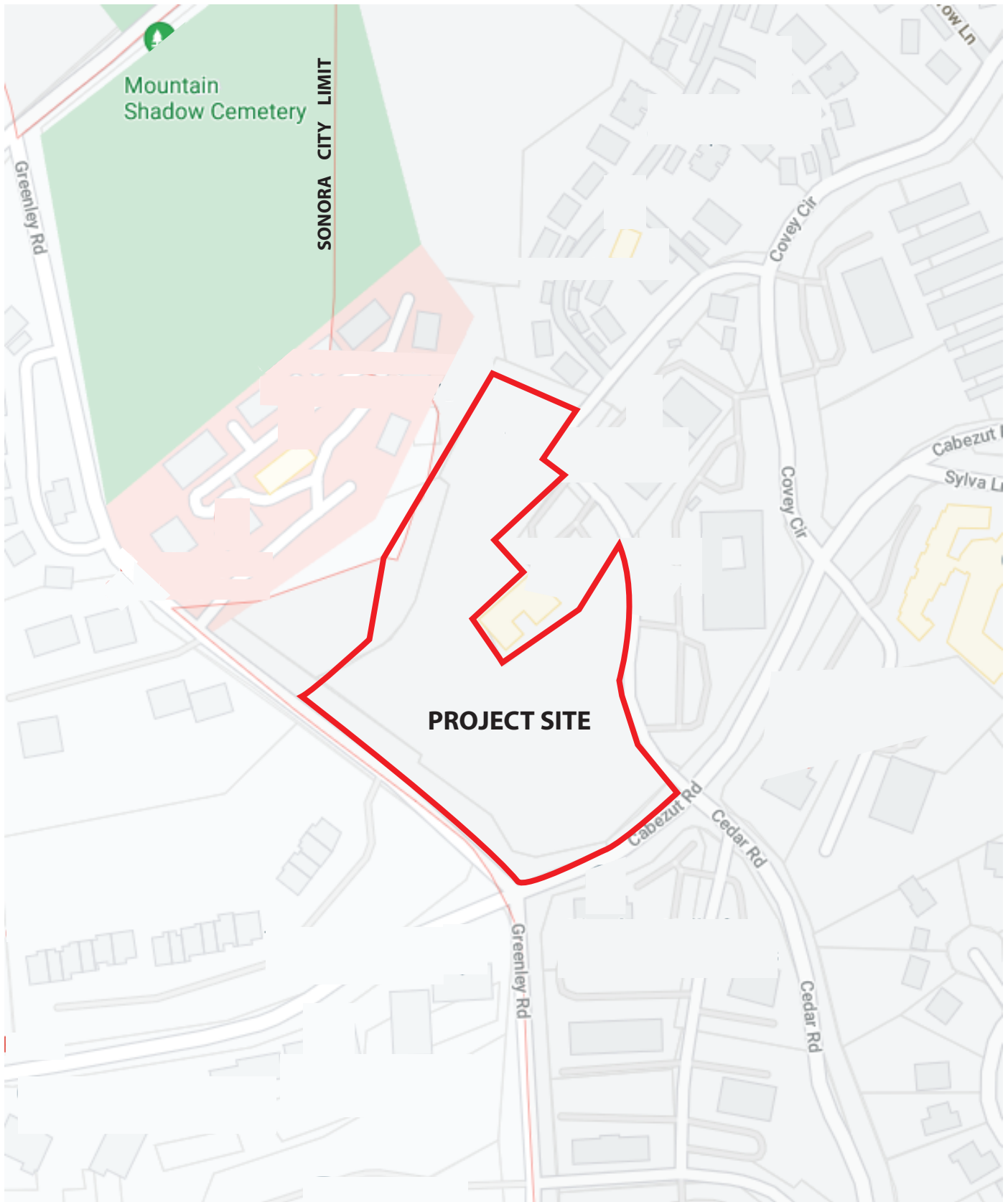
Some existing regulatory requirements, established by the County and other agencies with jurisdiction, that are routinely implemented in conjunction with new development function as measures that avoid or mitigate environmental impacts. These requirements are described in this IS/MND as a part of the existing regulatory setting, along with how these requirements would tend to reduce or avoid the project's environmental effects.

Where existing regulatory requirements are not adequate to reduce the project's environmental impacts to a level that would be less than significant, this IS/MND describes mitigation measures that can avoid or reduce the project's environmental effects. These mitigation measures are described in the technical analysis sections of Chapter 3.0 and are summarized in Table 1-1. As of the publication of the Notice of Intent for this project, these measures have been accepted by the project applicant. In all cases, these mitigation measures would avoid potentially significant impacts of the project or reduce them to a level that would be less than significant.

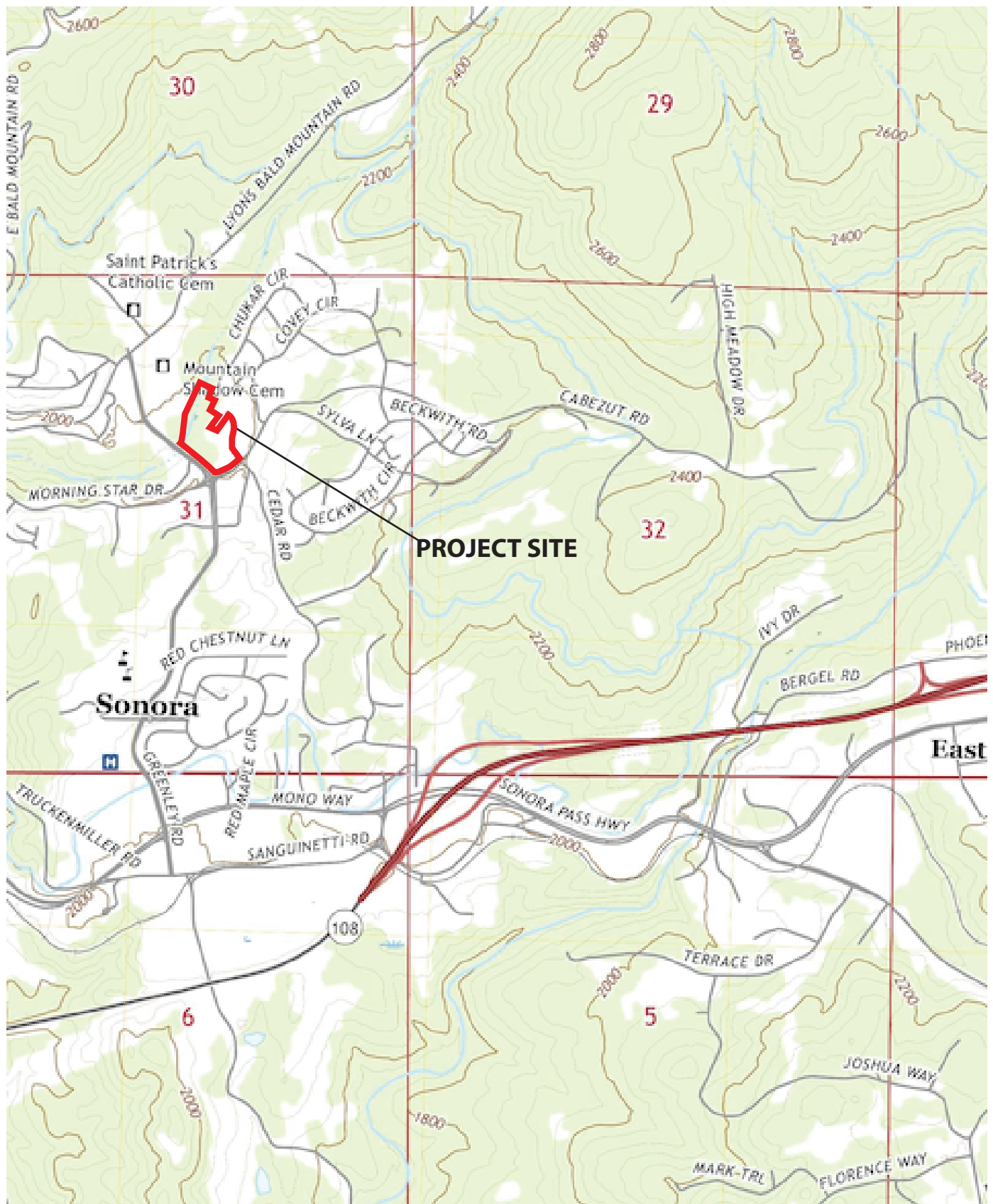
1.5 Summary of Environmental Effects and Mitigation Measures

The pages following the Figures 1-1 through 1-5 contain Table 1-1, Summary of Impacts and Mitigation Measures. The table summarizes the results of the Environmental Checklist Form and associated narrative discussion of the project's potential environmental effects in Chapter 3.0. The potential environmental impacts of the proposed project are summarized in the left-most column of this table. The projected level of significance of each impact without mitigation is indicated in the second column. Mitigation measures proposed to avoid or minimize significant environmental effects are shown in the third column, and the significance of the impact, after mitigation measures are applied, is shown in the fourth column.

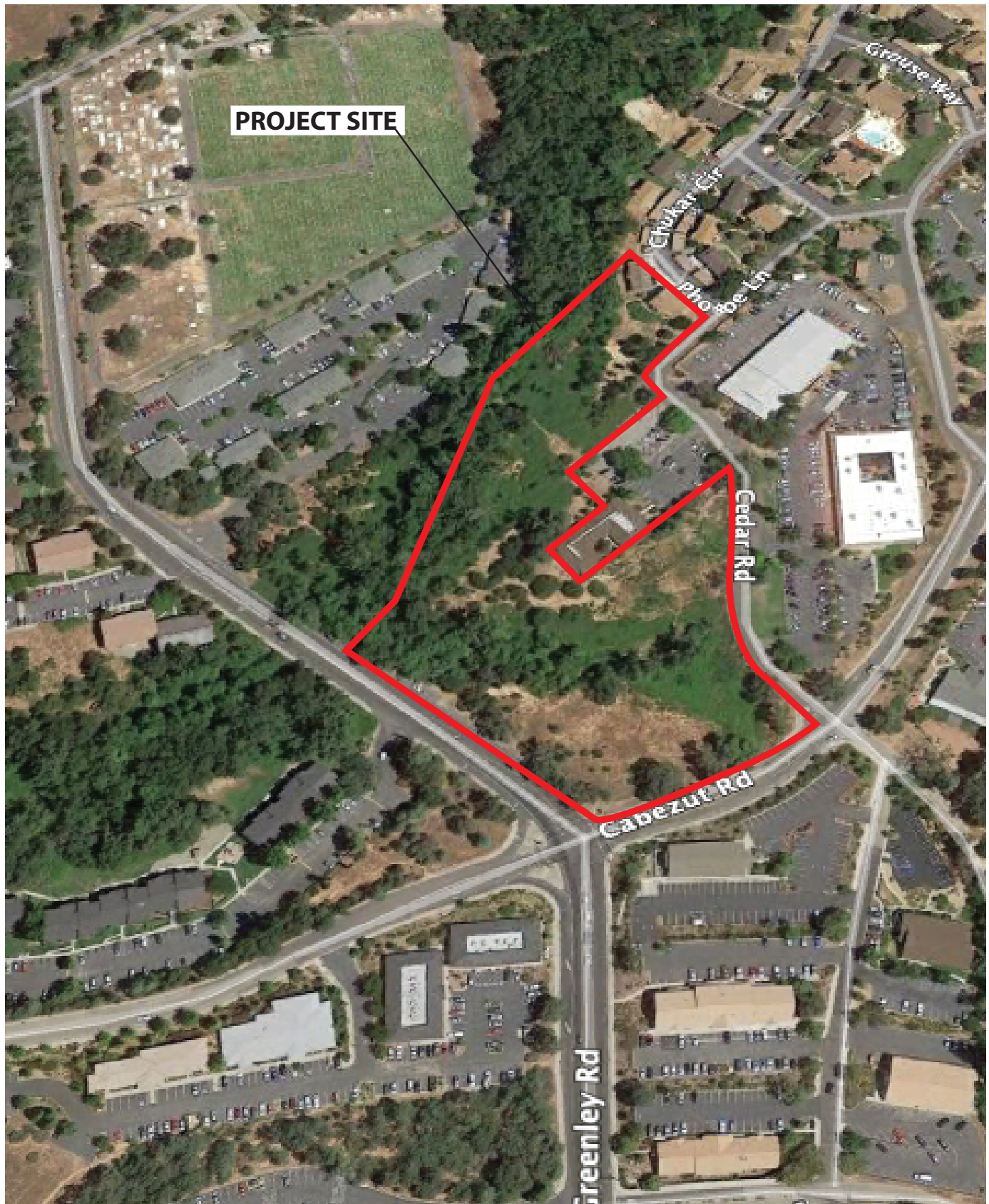




SOURCE: Google Maps



SOURCE: USGS Quadrangle Map, Standard, CA T2N, R15E, Section 32



SOURCE: Google Earth



Figure 1-5
ASSESSOR PARCEL MAP

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.1 AESTHETICS			
a) Scenic Vistas	NI	None required	-
b) Scenic Resources and Highways	LS	None required	-
c) Visual Character and Quality	LS	None required	-
d) Light and Glare	LS	None required	-
3.2 AGRICULTURE AND FORESTRY RESOURCES			
a) Agricultural Land Conversion	NI	None required	-
b) Agricultural Zoning and Williamson Act	NI	None required	-
c, d) Forest Land Conversion and Zoning	NI	None required	-
e) Indirect Conversion of Farmland of Forest Land	NI	None required	-
3.3 AIR QUALITY			
a) Air Quality Plan Consistency	LS	None required	-
b) Cumulative Emissions	LS	None required	-
c) Exposure of Sensitive Receptors to Pollutants	LS	None required	-
d) Odors and Other Emissions	NI	None required	-
3.4 BIOLOGICAL RESOURCES			
a) Special-Status Species	PS	BIO-1: If construction work commences after April 1, 2024, special-status plant surveys shall be conducted in areas proposed for construction disturbance. Plant surveys shall be conducted, and potential impacts mitigated, in conformance with the guidelines described in Section 7.2 of	LS

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		<p>the Madrone Biological Resources Assessment (Appendix B of this IS/MND). If construction work commences prior to April 1, 2024, no plant surveys shall be required.</p> <p>BIO-2: Pre-construction surveys shall be conducted, and necessary avoidance or mitigation measures shall be prescribed, by a qualified biologist in accordance with the procedures described in the referenced sections of the Madrone Biological Resources Assessment (Appendix B of this IS/MND) for the following:</p> <p>Active bumble bee colony nesting sites, within 14 days prior to construction (BRA Section 7.3). If a colony is found, consultation with CDFW will be necessary and an Incidental Take Permit from CDFW may be required prior to disturbance.</p> <p>California red-legged frog prior to construction (Section 7.4).</p> <p>Western pond turtle, within 150 feet of the intermittent and perennial drainages, within 48 hours prior to construction in those areas (Section 7.5).</p> <p>Roosting bat surveys within 14 days prior to any tree removal that will occur during the breeding season, from April through August (Section 7.7).</p> <p>BIO-3: Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training shall be prepared and administered to the construction crews. The training program shall address the subject areas of Section 7.10 of the Madrone Biological Resources Assessment (Appendix B of this IS/MND), and</p>	

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		the program shall be submitted to the County Community Development Department for review and approval.	
b) Riparian and Other Sensitive Habitats	PS	BIO-4: The project applicant shall notify CDFW of the project and its potential impacts and shall apply for a Section 1600 Lake or Streambed Alteration Agreement (LSAA) to determine if LSAA is required. Avoidance and minimization measures shall be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around protected resources, worker environmental awareness training, and installation of project-specific storm water best management practices (BMPs). Mitigation may include restoration or enhancement of resources on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to CDFW.	LS
c) State and Federal Jurisdictional Wetlands	LS	None required	-
d) Fish and Wildlife Movement	PS	BIO-5: If construction activities take place during the typical bird breeding/nesting season (typically February 1 through September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist throughout the project site and all accessible areas within a 250-foot radius of proposed construction areas, no more than 14 days prior to the initiation of construction, in accordance with the specifications of Section 7.6 of the Madrone Biological Resource Assessment (Appendix B of this IS/MND). If nesting birds are discovered, avoidance or mitigation shall be provided consistent with the recommendations of the above-referenced Section 7.6. If no nests are found, no further mitigation is required. If there	LS

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		is a break in construction activity of more than 14 days, then subsequent surveys may be required.	
e) Local Biological Requirements	PS	<p>BIO-6: The project applicant shall contribute to the Tuolumne Oak Woodland Conservation Fund using the following formula:</p> $\text{Fee} = 1.0 \times \text{Acres of Impacted Oak Woodland} \times \text{Current Land Value}$ <p>The current land value shall be determined by the County.</p> <p>BIO-7: For all oak trees to be retained, including those within 25 feet of any development activity, the following protective measures shall be implemented prior to any construction activities:</p> <ul style="list-style-type: none"> Brightly colored construction fencing (mesh or silt) shall be placed around the outermost edge of the dripline of each tree or group of protected trees on the sides facing the construction. No construction activities shall be conducted within this area, including but not limited to storage of any equipment, parking or storage of any vehicles, and dumping of any trash, soils, fuels, or liquids. The construction fencing shall remain in place until all construction activities are completed. The existing grade shall be maintained around protected trees to the maximum extent possible. 	LS
f) Conflict with Habitat Conservation Plans	NI	None required	-

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.5 CULTURAL RESOURCES			
a) Historical Resources	NI	None required	-
b) Archaeological Resources	PS	CULT-1: Archaeological monitoring of initial project-related ground disturbances shall be conducted by a qualified professional archaeologist, who shall be retained by the project applicant. If any subsurface cultural resources are encountered during construction of the project, the Tuolumne County Community Development Department shall be notified, and all construction activities within 50 feet of the encounter shall be halted until the archaeologist can examine these materials, determine their significance, and recommend mitigation measures that would reduce potential effects on the find to a level that is less than significant. Recommended measures may include, but are not limited to, 1) preservation in place, or 2) excavation, recovery, and curation by qualified professionals. The project developer shall be responsible for implementing recommended mitigation measures and documenting mitigation efforts in a written report to the County's Community Development Department, consistent with the requirements of the CEQA Guidelines.	LS
c) Human Burials	PS	CULT-2: If human remain are encountered during construction of the project, all construction activities within 50 feet of the encounter shall be halted, and the Tuolumne County Sheriff/Coroner shall be contacted immediately. If the remains are determined to be Native American, the Sheriff/Coroner shall notify the Native American Heritage Commission, which shall in turn appoint a Most Likely Descendent to act as a tribal representative. The Most Likely Descendent shall work with the project proponent and a qualified archaeologist to determine the proper treatment of the human remains and any associated funerary objects. Construction activities	LS

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		shall not resume until either the human remains are exhumed or the remains are avoided via project construction design change.	
3.6 ENERGY			
a) Project Energy Consumption	LS	None required	-
b) Consistency with Energy Plans.	LS	None required	-
3.7 GEOLOGY AND SOILS			
a-i) Fault Rupture Hazards	NI	None required	-
a-ii, iii) Seismic Hazards	LS	None required	-
a-iv) Landslides	LS	None required	-
b) Soil Erosion	LS	None required	-
c) Geologic Instability	LS	None required	-
d) Expansive Soils	LS	None required	-
e) Adequacy of Soils for Wastewater Disposal	NI	None required	-
f) Paleontological Resources and Unique Geological Features	LS	None required	-
3.8 GREENHOUSE GAS EMISSIONS			
a, b) Project GHG Emissions and Consistency with GHG Reduction Plans	LS	None required	-

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.9 HAZARDS AND HAZARDOUS MATERIALS			
a) Hazardous Material Transport, Use, and Storage	LS	None required	-
b) Release of Hazardous Materials	LS	None required	-
c) Hazardous Materials Releases near Schools	NI	None required	-
d) Hazardous Materials Sites	NI	None required	-
e) Public Airport Operations	NI	None required	-
f) Emergency Response and Evacuations	PS	HAZ-1: Prior to the start of project construction, the developer shall prepare and implement a Traffic Control Plan, which shall include such items as traffic control requirements, resident notification of access closure, and daily access restoration. The contractor shall specify dates and times of road closures or restrictions, if any, and shall ensure that adequate access will be provided for emergency vehicles. The Traffic Control Plan shall be reviewed and approved by the County Department of Public Works and shall be coordinated with the Tuolumne County Sheriff's Department and the Tuolumne County Fire Department if construction will require road closures or lane restrictions.	LS
g) Wildland Fire Hazards	LS	None required	-
3.10 HYDROLOGY AND WATER QUALITY			
a) Surface Water Quality	LS	None required	-
b) Groundwater Supplies and Recharge	LS	None required	-
c-i, ii, iii) Drainage Patterns and Runoff	LS	None required	-

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
c-iv) Flood Flows	NI	None required	-
d) Other Flooding Hazards	LS	None required	-
e) Conflict with Water Quality or Groundwater Plans	NI	None required	-
3.11 LAND USE AND PLANNING			
a) Division of Established Communities	NI	None required	-
b) Conflicts with Plans, Policies and Regulations Mitigating Environmental Effects	LS	None required	-
3.12 MINERAL RESOURCES			
a, b) Availability of Mineral Resources	NI	None required	-
3.13 NOISE			
a) Exposure to Noise Exceeding Local Standards	PS	<p>NOISE-1: Prior to approval of a grading permit, and subject to the review and approval of the Engineering Division of the Tuolumne County Department of Public Works, construction plans shall require a notation limiting construction activities to the following:</p> <ul style="list-style-type: none"> Construction activities shall be restricted to the hours between 8:00 a.m. and 6:00 p.m. Monday through Saturday. Construction activities shall be prohibited on Sundays and County holidays. All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with manufacturers recommended mufflers and be maintained in good working condition. 	LS

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		<ul style="list-style-type: none"> All mobile or fixed noise-producing equipment used in 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 and must be located as far as is feasible from sensitive receptors. Sound attenuation devices shall be required on construction vehicles and equipment. 	
b) Exposure to Groundborne Vibration or Noise	LS	None required	-
c) Public Airport and Private Airstrip Noise	NI	None required	-
3.14 POPULATION AND HOUSING			
a) Unplanned Population Growth	LS	None required	-
b) Displacement of Housing or People	NI	None required	-
3.15 PUBLIC SERVICES			
a) Fire Protection	LS	None required	-
b) Police Protection	LS	None required	-
c) Schools	LS	None required	-
d, e) Parks and Other Public Facilities	LS	None required	-
3.16 RECREATION			
a, b) Recreational Facilities	LS	None required	-

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.17 TRANSPORTATION			
a) Conflict with Transportation Plans, Ordinances and Policies	LS	None required	-
b) Conflict with CEQA Guidelines Section 15064.3(b)	LS	None required	-
c) Traffic Hazards	PS	<p>TRANS-1: The project applicant shall remove or trim vegetation within the northwest quadrant of the Cedar Road/Cabezut Road intersection to give vehicles from Cedar Road a longer line of sight along eastbound Cabezut Road.</p> <p>TRANS-2: The project applicant shall install a crosswalk across Cedar Road from the project site to the Tuolumne County Transit bus stop near the Tuolumne County Social Services building.</p> <p>TRANS-3: The traffic circle proposed for installation at the proposed main driveway off Greenley Road shall be mountable such that a design 30-foot single-unit truck can drive over the circle if necessary when maneuvering through the main gate.</p>	LS
d) Emergency Access	NI	None required	-
3.18 TRIBAL CULTURAL RESOURCES			
a, b) Tribal Cultural Resources	PS	Mitigation Measures CULT-1 and CULT-2.	LS
3.19 UTILITIES AND SERVICE SYSTEMS			
a) Relocation or Construction of New Facilities	LS	None required	-
b) Water Systems and Supply	LS	None required	-

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
c) Wastewater Treatment Capacity	LS	None required	-
d, e) Solid Waste Services	LS	None required	-
3.20 WILDFIRE			
a) Emergency Response Plans and Emergency Evacuation Plans	PS	Mitigation Measure HAZ-1.	LS
b) Exposure of Project Occupants to Wildfire Hazards	LS	None required	-
c) Installation and Maintenance of Infrastructure	LS	None required	-
d) Risks from Runoff, Post-Fire Slope Instability, or Drainage Changes	LS	None required	-
3.21 MANDATORY FINDINGS OF SIGNIFICANCE			
a) Findings on Biological and Cultural Resources	PS	Mitigation measures in Sections 3.4 and 3.5.	LS
b) Findings on Individually Limited but Cumulatively Considerable Impacts	LS	None required	-
c) Findings on Adverse Effects on Human Beings	LS	None required	-

2.0 PROJECT DESCRIPTION

2.1 Project Location

The project site is located at 20080 North Cedar Road, at the northeastern corner of the intersection of Greenley Road and Cabezut Road in the unincorporated community of East Sonora in Tuolumne County (see Figures 1-1 to 1-5). The 5.93-acre project site is identified as Assessor's Parcel Number (APN) 044-420-37. The site is shown on the U.S. Geological Survey Standard, California 7.5-minute quadrangle map as being within Section 31, Township 2 North, Range 15 East, Mt. Diablo Base and Meridian. The approximate latitude and longitude of the project site are 37° 59' 12" North and 120° 22' 02" West, respectively.

2.2 Project Details

The project proposes to construct an apartment complex consisting of five buildings on a 5.93-acre undeveloped site (Figure 2-1). Four apartment buildings would provide a total of 72 apartment units, ranging in size from one bedroom to three bedrooms. All units are intended to be offered at a rent affordable to households making 30-50% of the local Area Median Income. A fifth building would be a community center for apartment residents. Additional project components include parking spaces, landscaping, and utility improvements. Table 2-1 below summarizes the proposed project. Building numbers correspond to their identification in Figure 2-1.

TABLE 2-1
PROPOSED PROJECT CONSTRUCTION

Building	No. of Units	Unit Types
<i>Apartment Buildings</i>		
Building 1	24	6 1-bed; 12 2-bed; 6 3-bed
Building 2	18	15 2-bed; 3 3-bed
Building 3	18	15 2-bed; 3 3-bed
Building 4	12	1 1-bed; 5 2-bed; 6 3-bed
Total	72	7 1-bed; 47 2-bed; 18 3-bed
Community Center	6,000 square feet	

The project would construct four three-story apartment buildings, all approximately 44 feet in height. Figures 2-2A and 2-2B provide representative apartment building elevations; not all buildings are shown. The buildings would be constructed of stucco with a stone veneer and would have composition roof shingles. Accents to these buildings would include steel railings and metal roofing.

As indicated in Table 2-1, each building would each have a different number of units. Building 4 is anticipated to be constructed with an “uphill split”, meaning the building would follow the contour of the hill and construct only half of a full story at the bottom story. The other buildings are expected to use “flat” construction, meaning the building site would be graded to allow for full-story construction on all three stories. All units would have balcony areas on the outside. For all apartment buildings, the upper stories would be accessed by stairs; each building would have two stairwells.

In the southern portion of the project site, a one-story community center for apartment residents would be constructed. The community center would have approximately 6,000 square feet of floor area. The leasing office and general office space would be located in the community center, along with computer laboratories and a Head Start daycare facility. A Head Start play yard would be adjacent to and west of the community center as well as a tot lot for children and a sport court for all residents.

The project proposes the installation of 85 parking spaces, located throughout the project site, that would be available to residents and visitors. These include two spaces for disabled persons. Landscaping would be incorporated throughout the project site, mainly around the buildings. An area south of the community center building would be designated a community lawn event area for outdoor activities.

Main access to the project site would be provided by a gated driveway off Greenley Road near the community center building. This driveway would lead to a traffic circle, from which access would be available to other parts of the project site. Traffic leaving the project site from this driveway would be allowed to make all turns. Another entry driveway would be provided at the northern end of the project site off Phoebe Lane. Street improvements have not been fully determined, although sidewalk improvements have been proposed at and near the Greenley Road driveway. The project would work with the County on satisfying County requirements for street frontage improvements.

The project would connect to existing water and sanitary sewer lines within or adjacent to the site, both of which are managed by the Tuolumne Utilities District (TUD). Electricity and telecommunications utilities would be provided by way of connections to existing infrastructure in the immediate project vicinity. Dumpsters and other onsite utility facilities would be enclosed or otherwise screened from view in accordance with County standards. For storm drainage, the project proposes an onsite collection system that sends runoff to a proprietary treatment device to treat the runoff before it is discharged to an existing drainage channel near the center of site through an outlet just outside the channel boundary. One or two treatment devices would be used.

The project site would require grading to accommodate the buildings and parking areas. Grading would be conducted in accordance with the Tuolumne County Grading Ordinance. To the extent feasible, existing trees would remain on the project site; however, some trees would need to be removed to accommodate development. Existing identified wetland areas on the project site would be avoided; an intermittent wetland in the southern portion of the site would be crossed with a clear-span bridge at one location east of the roundabout.

2.3 Permits and Approvals

The project includes a request to change the General Plan designation of the project site from its existing Neighborhood Commercial (NC) to High Density Residential (HDR). The project also proposes to rezone the site from its current C-O (Neighborhood Commercial) to R-3 (High Density Residential). The Tuolumne County Board of Supervisors must grant these approvals.

As noted in Chapter 1.0, Introduction, the County deemed the SB 330 application complete on July 6, 2021. Tuolumne County Ordinance Code Section 17.65.020 requires an inclusionary housing plan for discretionary land use entitlements proposing residential development of five or more units, including tentative maps, conditional use permits, site development permits, site review permits and planned unit development permits for which the property owner has requested incentives. In accordance with Section 17.65.020, the project shall submit an inclusionary housing plan as part of a request for the following incentives:

- Reduced parking standard pursuant to California Government Code Section 65915 and Tuolumne County Ordinance Code Section 17.65.090.
- Fee waivers for County Services Impact Mitigation Fees, application fees for discretionary entitlements, and building permit fees. Fee waivers shall be granted in accordance with County Code Section 3.40.040(C).

The project proposes to connect to water and wastewater lines managed by TUD. The project would need to comply with TUD's requirements for connection, including installation standards and payment of fees.

PROJECT SUMMARY

Site Data:
 Gross Site Area: +/- 5.93 ac
 Total Apartment Units: 72 units
 Gross Density: 12.14 du/ac
 Community Center +/-6,000 sf
 Parking 85 spaces (1.18 ratio)

*NOTE: Project summary are preliminary and subject to refinement.

APARTMENTS BUILDING TYPE A

- 3-story
- 12-plex
- 1 Plotted (#4)

APARTMENTS BUILDING TYPE B

- 3-story
- 18-plex
- 2 Plotted (#2 & 3)

PROJECT ENTRY

- Gate

SPORTS COURT

TOT-LOT

COMMUNITY EVENT LAWN

SECONDARY ENTRY

SEASONAL WETLAND

APARTMENTS BUILDING TYPE C

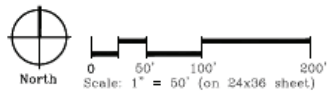
- 3-story
- 24-plex
- 1 Plotted (#1)

INTERMITTENT DRAINAGE

RIPARIAN WETLAND

COMMUNITY CENTER

- 1 level
- Total +/-6,000 sf.
- Leasing office, Office, Computer Labs, Headstart day care



NOTE: Proposed property location, boundary lines, and shape of the parcel shown in this study are for graphic reference only and may be subject to change pending on owner's final surveying map.

VISIONARY HOME BUILDERS
 Sacramento, CA

CONCEPTUAL SITE PLAN - 72 Units
HIDDEN MEADOW TERRACE
 SONORA, CA.



Figure 2-1
 SITE PLAN



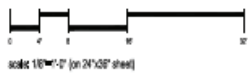
FRONT ELEVATION



PERSPECTIVE



RIGHT ELEVATION



Proposed 24-plex Apartment Building

A-4.2

Scale: 1/8" = 1'-0"

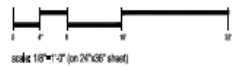
APARTMENT BUILDING - 24 PLEX



BACK ELEVATION



LEFT ELEVATION



VISIONARY HOME BUILDERS
Sacramento, CA.

A-4.3

Scale: 1/8" = 1'-0"

APARTMENT BUILDING - 24 PLEX
HIDDEN MEADOW TERRACE
SONORA, CA.



3.0 ENVIRONMENTAL CHECKLIST FORM

The following environmental evaluation considers the potential environmental effects of County approval of the proposed project, as described in Chapter 2.0, Project Description. The format of this evaluation is based on the Environmental Checklist presented in Appendix G of the 2021 CEQA Guidelines.

3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Less Than Significant		
	Potentially Significant Impact	with Mitigation Incorporated	Less Than Significant 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 points.) 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 daytime or nighttime views in the area?			✓

NARRATIVE DISCUSSION

Environmental Setting

The East Sonora community in which the project is located is located on hilly terrain, which has been extensively developed where feasible with low- and high-density residential uses. The area drains to Sonora Creek, the site occupying the lower elevations of the Sonora Creek drainage area. As a result, views from the site and the vicinity are confined to the general vicinity only. Distance views, or vistas, are not available from the project site or vicinity.

Scenic vistas are generally considered to be areas where the public can experience unique or high-quality views. Typical examples of 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. Three officially designated

vista points exist within the County: State Route (SR) 120 at Miles 19 and 21, which overlook Don Pedro Lake, and at Mile 44, which overlooks a canyon containing the South Fork of the Tuolumne River. The project site is not near any of the designated vista points; the referenced segment of SR 120 is approximately 10 miles to the south.

California's Scenic Highway Program (California Streets and Highways Code Section 260 *et seq.*) was created in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The program includes a list of highways that are either eligible for designation as scenic highways or have been so designated. There are no officially designated State Scenic Highways within Tuolumne County (Caltrans 2019). The Tuolumne County General Plan designates three scenic routes:

- SR 49 from the Mariposa County line to SR 120 near Moccasin Creek and from SR 120 at Chinese Camp to the Calaveras County line, exclusive of the County of Sonora.
- SR 108 from SR 49 easterly into Mono County.
- SR 120 from Route 49 near Chinese Camp easterly to SR 49 near Moccasin Creek.

The project site is not on these local scenic routes. The closest route to the project site, SR 108, is approximately one mile to the southeast with intervening topography and development.

The project site itself is primarily vacant land covered with mixed trees and low-growing vegetation. The main scenic resource is the Sonora Creek corridor, the approximate western boundary of the site, which is densely vegetated with oak trees and other riparian vegetation. Similar vegetation is located along the intermittent waterway which crosses the site from east to west, intersection Sonora Creek near the westernmost corner of the site.

Views onto the site are available from the adjacent roads. These consist of on-site grassy vacant lands filtered through oak and other trees located near the roads with the denser riparian areas in the background. Views of lands surrounding the site are available from these same roads. These lands are largely developed for institutional and commercial purposes and views consist high density residential development west of Greenley Road, commercial and medical offices north of the site and south of Cabezut Road and the County Department of Social Services offices east of Cedar Road. Other high-density residential development dominates views north and east of the County offices.

There are no lighting features on the project site; existing lighting in the area consists mainly of parking area, security and building lighting in nearby development, including the adjacent hospice building. The signalized intersection of Greenley and Cabezut roads is also lighted.

Appendix G of the 2021 CEQA Guidelines mentions California Public Resources Code Section 21099, which states that the aesthetic and parking impacts of residential, mixed-use residential, or employment center projects on an infill site within a transit priority area shall not be considered significant effects under CEQA. While the project is residential, it

is not considered an infill project, and it is not in a designated transit priority area. Therefore, Public Resources Code Section 21099 does not apply to this project.

Environmental Impacts and Mitigation Measures

a) Scenic Vistas.

There are no scenic vistas from the project site, or from the lands or roadways surrounding the site. The project site is not located near any officially designated scenic vistas. Therefore, the project would have no impact on scenic vistas.

b) Scenic Resources and Highways.

As noted, the main scenic resource on the project site is Sonora Creek and its riparian area. The project proposes to avoid development within this area, so this resource would remain intact. There are no designated scenic routes or resources located in the project vicinity. Project impacts on scenic resources and highways would therefore be less than significant.

c) Visual Character and Quality.

The project site is presently undeveloped vacant land with trees and other dense vegetation, which is located mainly along Sonora Creek. Tree cover is however scattered throughout the site, intermixed with non-native grassland and weedy vegetation. The project would involve the replacement of open space areas with apartment buildings, access roads, parking areas and a community center, thereby changing the visual character of the project site.

However, this development would be consistent with the development that currently exists in the area as well as with general plan designations and zoning for the area. Although the project would involve a change in general plan designations and zoning, these changes would be to less-intensive land uses; existing commercial designations and zoning would be replaced by high-density residential designations and zoning. This element of the project would result in typically less intensive development and higher open space retention.

The project would include landscaping that would enhance the visual quality of the development and would minimize the impacts of the change to the existing visual landscape. Tuolumne County Ordinance Code Section 15.28.030 requires that multifamily development set aside a minimum of 10 percent of its area for landscaping. In addition, as noted in b) above, the project would avoid development within the riparian area of Sonora Creek, thereby maintaining the visual quality and continuity of the creekside area through the East Sonora area.

The project site is within the area covered by the County's East Sonora Design Guidelines. These Design Guidelines provide general guidance on features such as lighting, landscaping, signage, and architectural design, with more specific recommendations for high-density residential development. Although these Design Guidelines do not dictate mandatory design elements, they are used by County staff and the County Planning Commission during the review of land development applications within the East Sonora Community Plan boundaries and will be applied to the project during staff review of the

project. Compliance with the East Sonora Design Guidelines would ensure that the project would have high visual quality. Project impacts on visual character and quality would be less than significant.

d) Light and Glare.

The project would add a range of new lighting features to the presently unlighted site. New lighting would include lighting of parking and pedestrian ways as well as security lighting of residential buildings and the community center. Project-related lighting would increase illumination levels on the site and in the general project area. Lighting associated with the project, however, is not expected to involve high-intensity lighting that might otherwise be associated with commercial development. Surrounding land uses, including commercial offices and the County Social Services office, would not be considered sensitive to changes in lighting levels. High-density residential uses west of Greenley Road are screened from the site by trees and other vegetation and are at least 150 feet from nearest portions of the site. Portions of the adjoining hospice use are adjacent to proposed Building 3 and proposed parking areas for Building 1, potentially exposing this use to new lighting.

The East Sonora Design Guidelines seeks to prevent nuisances resulting from unnecessary light intensity, direct glare, or light pollution. They discourage unnecessary upward light projection and encourage parking lot lighting that concentrates light downward into traffic and crosswalk areas (County of Tuolumne 2009). As noted in c) above, the project would be reviewed by the County based on the Design Guidelines, including its lighting provisions. Compliance with the East Sonora Design Guidelines would reduce potentially adverse lighting effects on the adjoining hospice use to a less than significant level. Overall project impacts on light and glare would be less than significant.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	✓			
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	✓			
d) Result in the loss of forest land or conversion of forest land to non-forest use?	✓			

Less Than Significant
Potentially Significant
Impact
Incorporated
Less Than Significant
Impact
No Impact

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?

			✓
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NARRATIVE DISCUSSION

Environmental Setting

Agriculture in Tuolumne County accounted for a total value of \$24,395,314 in 2019, excluding timber. Of this value, \$19,641,400 was from livestock and poultry, with another \$137,800 from livestock and poultry products (County of Tuolumne Agricultural Commissioner 2019). The project site is not used for agricultural production or livestock grazing, and there are no active agricultural lands in the vicinity.

Tuolumne County contains approximately 690,000 acres of conifer forest/woodland, 231,000 acres of hardwood forest/woodland, and 53,000 acres of mixed conifer and hardwood forest and woodlands (County of Tuolumne 2018a). In 2019, the value of timber harvested in Tuolumne County was \$16,640,034 (County of Tuolumne Agricultural Commissioner 2019). The County designates areas as Timber Production in areas where the growing and harvesting of timber and other forest products occur in concert with limited, low-intensity public and private commercial recreational uses. The Timber Production designation is found primarily in the eastern portion of the County at elevations above 3,000 feet (County of Tuolumne 2018a).

The Important Farmland Maps, prepared by the California Department of Conservation as part of its Farmland Mapping and Monitoring Program, designate the viability of lands for farmland use, based on the physical and chemical properties of the soils and other factors. The maps categorize farmland, in decreasing order of soil quality, as "Prime Farmland," "Unique Farmland," and "Farmland of Statewide Importance." Collectively, these categories are referred to as "Farmland" in the CEQA Checklist in Appendix G of the CEQA Guidelines and in this document. No Important Farmland Maps have been prepared for Tuolumne County. The Tuolumne County General Plan Land Use Diagram shows no land designated for agricultural use on the project site or in the vicinity.

Project site soils as reported in Section 3.7 Geology and Soils are not considered "prime" agricultural soils. These loamy and cobbly soil units have best-case Land Capability Classifications of III and IV, when irrigated.

Environmental Impacts and Mitigation Measures

a) Farmland Conversion.

As no Important Farmland Map has been prepared for Tuolumne County, the County has no designated Farmland as defined by CEQA Guidelines Appendix G. Therefore, the project would not convert Farmland to non-agricultural use. As noted, the Tuolumne

County General Plan has not designated the project site as agricultural land. Project site soils are non-prime. The project would have no impact on Farmland conversion.

b) Agricultural Zoning and Williamson Act.

As previously noted, the project site is zoned for commercial uses, not for agriculture. The Williamson Act is State legislation that seeks to preserve farmland by offering property tax breaks to farmers who sign a contract pledging to keep their land in agricultural use. The County participates in the Williamson Act program; however, the project site is not under a Williamson Act contract (County of Tuolumne 2018a). The project would have no impact on agricultural zoning or Williamson Act lands.

c, d) Forest Land Conversion and Zoning.

The project site is currently zoned for urban commercial use. The project site does not support commercial forestry and does not contain commercial tree species. The site has not been given a Timber Production designation. Because of this, the project would not result in the loss of forest land or convert forest land to non-forest use. The project would have no impact on forest land.

e) Indirect Conversion of Farmland and Forest Land.

No lands in the vicinity of the site are in agricultural use, and no such lands have been designated Farmland as defined for CEQA purposes. There are active agricultural operations on any nearby lands, and most of these lands have been developed for urban uses. As noted in c, d) above, there are no forest lands in the vicinity. The project would have no impact related to indirect conversion of Farmland or forest land.

3.3 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 Attainment 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?				✓

NARRATIVE DISCUSSION

Environmental Setting

The project site and all of Tuolumne County is within the Mountain Counties Air Basin. The Tuolumne County Air Pollution Control District (APCD) has jurisdiction over most air quality matters in the County. The APCD is tasked with implementing programs and regulations required by both the federal and California Clean Air Acts.

Under their respective Clean Air Acts, both the State of California and the federal government have established ambient air quality standards for six criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. California has four additional criteria pollutants under its Clean Air Act. Table 3-1 shows the current attainment status of the County relative to the federal and State ambient air quality standards for criteria pollutants. Except for ozone, which is discussed below, the County is in attainment of, or unclassified for, all federal and State ambient air quality standards.

TABLE 3-1
TUOLUMNE COUNTY ATTAINMENT STATUS

Criteria Pollutant	Designation/Classification	
	Federal Primary Standards	State Standards
Ozone - One hour	No Federal Standard	Nonattainment
Ozone - Eight hour	Nonattainment	Nonattainment
PM ₁₀	Unclassified	Unclassified
PM _{2.5}	Attainment/Unclassified	Unclassified
Carbon Monoxide (CO)	Attainment/Unclassified	Attainment
Nitrogen Dioxide (NO _x)	Attainment/Unclassified	Attainment
Sulfur Dioxide (SO _x)	Attainment/Unclassified	Attainment
Lead	Attainment/Unclassified	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Status not available*

* While vinyl chloride has an ambient air quality standard established by the State of California, it is regulated as a toxic air contaminant under the State's Air Toxics Program.
Source: ARB 2019.

The County is designated a nonattainment area for ozone under both federal and State standards. Ozone is not emitted directly into the air; rather, it is formed when reactive organic gases and nitrogen oxides, referred to as “ozone precursors,” react in the atmosphere in the presence of sunlight. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. The California Air Resources Board (ARB) has determined that ozone levels in Tuolumne County are caused by “overwhelming transport” of emissions from other air basins into the county (CAPCOA 2015). Because of this, the APCD does not have to prepare an ozone attainment plan.

In addition to the criteria pollutants, the ARB has identified other air pollutants as toxic air contaminants (TACs) - pollutants that may cause acute or chronic long-term health effects, such as cancer. Some TACs may cause adverse effects even at low levels. Diesel particulate matter is the most common TAC, generated mainly as a product of combustion in diesel engines. Other TACs are less common and are typically associated with certain industrial activities.

As previously noted, the APCD has jurisdiction over most air quality matters in the County. It implements the federal and California Clean Air Acts, and the applicable attainment and maintenance plans, through local regulations. The APCD regulations that would be applicable to the project are summarized below.

Rule 205 - Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause or have a natural tendency to cause injury or damage to business or property.

Rule 207 - Particulate Matter. A person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter emissions in excess of 0.1 grains per cubic foot of dry exhaust gas at standard conditions.

Environmental Impacts and Mitigation Measures

Table 3-2 shows the CEQA thresholds for significance for pollutant emissions within the APCD. The significance thresholds apply to “project-generated emissions”, which is understood to mean emissions from project operations.

The California Emissions Estimator Model (CalEEMod) was used to estimate both construction and operational emissions from the proposed project. The CalEEMod results are shown in Appendix A of this document. Table 3-2 shows the estimated maximum project construction emissions in a calendar year and the estimated annual operational emissions.

TABLE 3-2
APCD SIGNIFICANCE THRESHOLDS AND PROJECT EMISSIONS

	ROG	NO _x	CO	PM ₁₀
APCD Significance Thresholds¹ (tons/year)	100	100	100	100
Construction Emissions ² (tons/year)	1.39	1.06	1.12	0.09
Operational Emissions (tons/year)	5.31	0.64	9.17	1.18
<i>Above Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Notes: ROG – reactive organic gases; NO_x – nitrogen oxide; CO – carbon monoxide; PM₁₀ – particulate matter 10 microns in diameter.

¹ Applicable to operational emissions only.

² Maximum emissions in a calendar year.

Sources: CalEEMod Version 2020.4.0, APCD 2013.

a) Air Quality Plan Consistency.

The APCD has no attainment plans for criteria pollutants, but the State has a carbon monoxide (CO) attainment plan applicable throughout California. As indicated in Table 3-2, project operational emissions would not exceed the applicable APCD significance thresholds. Since CO project emissions would be below the APCD significance threshold, the project would be consistent with the State attainment plan for CO. Project impacts related to air quality plans would be less than significant.

b) Cumulative Emissions.

As described above, the project would not generate operational emissions above APCD significance thresholds. The significance thresholds are applied to evaluate regional impacts of project-specific emissions of air pollutants. Regional impacts of a project can be characterized in terms of total annual emissions of criteria pollutants and their impact on the APCD's ability to reach attainment of criteria pollutant standards. On that basis, the proposed project would not result in a considerable contribution to a significant cumulative air quality impact in the County. Project impacts related to cumulative emissions would be less than significant.

c) Exposure of Sensitive Receptors to Pollutants.

“Sensitive receptors” may be defined to include residences, schools, parks and playgrounds, day care centers, nursing homes, and hospitals. The project site is adjacent to a hospice and is near the Quail Hollow One apartment complex to the north. Both land uses may be considered sensitive receptors. As noted, project operational emissions would be below APCD significance thresholds for criteria pollutants. Implementation of Rules 205 and 207 would avoid construction emissions potentially reaching the apartment complex.

As noted, diesel particulate matter is the most common TAC encountered. The main sources of diesel particulate matter in the vicinity of the project site are diesel-fueled construction equipment and vehicles and emissions from diesel-fueled trucks and passenger vehicles. Construction diesel particulate matter emissions associated with the

project would be temporary and would cease once construction at the project site is completed.

During project operation, traffic from vehicles using diesel fuel would be limited, mainly to delivery trucks. These emissions would not be substantial, would quickly dissipate and would not represent a health threat to nearby sensitive receptors. The potential exposure of sensitive receptors to pollutant emissions would be less than significant.

e) Odors and Other Emissions.

The project is a residential development. Residential development does not generate substantial odors that would affect nearby land uses, unlike industrial or utility projects (e.g., wastewater treatment plants). The project, like other residential projects, also would not generate substantial amounts of TACs or other such emissions. The project would have no impact related to odors or other emissions.

3.4 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 Game or U.S. Fish and Wildlife Service?		✓		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		✓		
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		✓		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan,				✓

or other approved local, regional, or state habitat conservation plan?

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NARRATIVE DISCUSSION

Information for this section is drawn from a Biological Resources Assessment conducted for the project by Madrone Ecological Consulting, LLC, except where otherwise cited. Appendix B contains the Biological Resources Assessment and related documentation. Information for the Biological Resources Assessment was obtained from field surveys of the project site on April 9 and June 4, 2021, queries of the California Natural Diversity Database (CNDDB) managed by the California Department of Fish and Wildlife (CDFW), the Information for Planning and Conservation (IPaC) database managed by the U.S. Fish and Wildlife Service (USFWS), and the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory.

Environmental Setting

Existing Vegetation Communities and Wildlife

Vegetation communities occurring on the project site are shown on Figure 3-1. The northern portion of the project site is dominated by Sonora Creek and its associated riparian corridor; this and a similar riparian corridor along an intermittent drainage that discharges to Sonora Creek, is comprised of Valley oak woodland. The uppermost extent of these riparian corridors become much more open and have very few oaks; these areas may be better characterized as Gooding's willow-red willow riparian scrub. Extensive Armenian blackberry bramble occurs along the Sonora Creek riparian corridor and surrounding the intermittent drainage riparian corridor. A small interior live oak woodland occurs on the terrace above where the intermittent tributary joins Sonora Creek. Mixed oak woodland, consisting of Valley oak, interior live oak, and blue oak, was identified along Greenley Road. The remainder of the project site is comprised of annual brome grassland. The Biological Resource Assessment in Appendix B contains more detail on the plants found within each of the vegetation communities.

Special-Status Species

Special-status species are plant or wildlife species that are in one or more of the following categories:

- listed as threatened or endangered, or proposed or candidates for listing by the USFWS or National Marine Fisheries Service;
- listed as threatened or endangered and candidates for listing by CDFW;
- identified as Fully Protected species or Species of Special Concern by CDFW;
- identified as Medium or High priority species by the Western Bat Working Group; and

- plant species considered to be rare, threatened, or endangered in California by the CNPS [California Rare Plant Rank 1, 2, and 3] and CDFW.

Table 3-3 lists all the special-status species, both plant and wildlife, that have at least a low likelihood of occurrence on the project site. The complete table of special-status species that potentially occur in the vicinity is available for review in Appendix B. Most of the species in the complete table are considered to have no habitat present on the project site.

TABLE 3-3
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

Common Name <i>Scientific Name</i>	Federal Status ¹	State Status ²	CNPS List ³	Habitat	Potential for Occurrence
Plants					
Big-scale balsamroot <i>Balsamorhiza macrolepis</i>	-	-	1B	Chaparral, cismontane woodland, and valley and foothill grasslands between 150 and 5,100 ft. Often associated with serpentine soils.	Low. Woodlands and grasslands throughout the project site provide marginally suitable habitat; however, this species was not detected during protocol-level surveys in 2021.
Tuolumne button-celery <i>Eryngium pinnatisectum</i>	-	-	1B	Vernal pools and other mesic areas in cismontane woodland and lower montane coniferous forests between 230 and 3,000 ft.	Low. Mesic areas in throughout the project site represent potential habitat for this species; however, this species was not detected during protocol-level surveys in 2021.
Kings River monkeyflower <i>Erythranthe acutidens</i>	-	-	3	Cismontane woodlands and lower montane coniferous forests between 1,000 and 4,005 ft.	Low. Woodlands throughout the project site represent potential habitat for this species; however, this species was not detected during protocol-level surveys in 2021.
Tuolumne fawn lily <i>Erythronium tuolumnense</i>	-	-	1B	Chaparral, broad-leafed upland forest, cismontane woodland, and lower montane coniferous forest between 1,675 and 4,480 ft.	Low. Woodlands throughout the project site represent potential habitat for this species; however, this species was not detected during protocol-level surveys in 2021.
Parry's horkelia <i>Horkelia parryi</i>	-	-	1B	Chaparral and cismontane woodland on Ione Formation and other soils between 260 and 3,510 ft.	Low. Woodlands throughout the project site represent potential habitat for this species; however, this species was not

Common Name <i>Scientific Name</i>	Federal Status ¹	State Status ²	CNPS List ³	Habitat	Potential for Occurrence
					detected during protocol-level surveys in 2021.
Tuolumne iris <i>Iris hartwegii</i> ssp. <i>columbiana</i>	-	-	1B	Found in cismontane woodlands and lower montane coniferous forests between 1,395 and 4,595 ft.	Low. Woodlands throughout the project site represent potential habitat for this species; however, this species was not detected during protocol-level surveys in 2021.
<i>Invertebrates</i>					
Crotch bumble bee <i>Bombus crotchii</i>	-	SC	-	Open grasslands and scrub habitats. This species occurs primarily in California including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. This species was historically common in the Central Valley of California, but now appears to be absent from most of it, especially in the center of its historic range.	Low. The grasslands on-site are very small and isolated from other larger grasslands. Given this isolation, the site represents extremely marginal habitat for this species.
<i>Fish</i>					
San Joaquin roach <i>Lavinia symmetricus</i> ssp. <i>l</i>	-	SC	-	Found in tributaries of the San Joaquin River from the Cosumnes River and south, and in intermittent and perennial streams at mid-elevations in the foothills of the Sierra Nevada.	High. This species has been documented in Woods Creek, downstream of the project site, in 1998, and the intermittent and perennial streams within the project site represent suitable habitat for the species.
<i>Reptiles and Amphibians</i>					
<i>Rana draytonii</i> California red-legged frog	T	SC	-	Breeds in permanent to semi-permanent aquatic habitats including lakes, ponds, marshes, creeks, and other drainages.	Low. The species has not been documented in the area in over 40 years, and the perennial creek on-site has minimal adjacent vegetation that could provide cover for this species. As such, the habitat is considered only marginally suitable.
Western pond turtle <i>Actinemys marmorata</i>	-	SC	-	Ponds, rivers, streams, wetlands, and irrigation	Low. The drainages represent marginally

Common Name <i>Scientific Name</i>	Federal Status ¹	State Status ²	CNPS List ³	Habitat	Potential for Occurrence
				ditches with associated marsh habitat.	suitable habitat for this species given the density of tree and shrub cover and resultant minimal basking habitat.
Birds					
Tricolored blackbird <i>Agelaius tricolor</i>	-	E	-	Colonial nester in dense vegetation, such as cattails, bulrush, or blackberries associated with marsh habitats.	Low. The extensive Armenian blackberry thickets within the project site represent marginally suitable nesting habitat for this species; given the lack of surrounding foraging habitat, tricolored blackbird is extremely unlikely to use the site.
Mammals					
Pallid bat* <i>Antrozous pallidus</i>	-	SC	-	Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating Ponderosa pine and Valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings.	High. Suitable roosting habitat for this species is present in tree hollows and under exfoliating bark on trees throughout the site.
Townsend's big-eared bat* <i>Corynorhinus townsendii townsendii</i>	-	SC	-	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of trees. Extremely sensitive to human disturbance.	Low. No caves are present within the project site, and the only cave analogues that could occur would be large basal hollows of trees, which would represent marginally suitable habitat.

Notes:

¹ Federal: T - Threatened; E - Endangered.

² State: T - Threatened; E - Endangered; R - Rare; SC - Species of Special Concern; FP - Fully Protected.

³ CNPS: 1B - rare, threatened, or endangered in California and elsewhere; 3 - review list, more information is needed.

* Western Bat Working Group High Threat Rank.

Waters of the U.S. and Wetlands

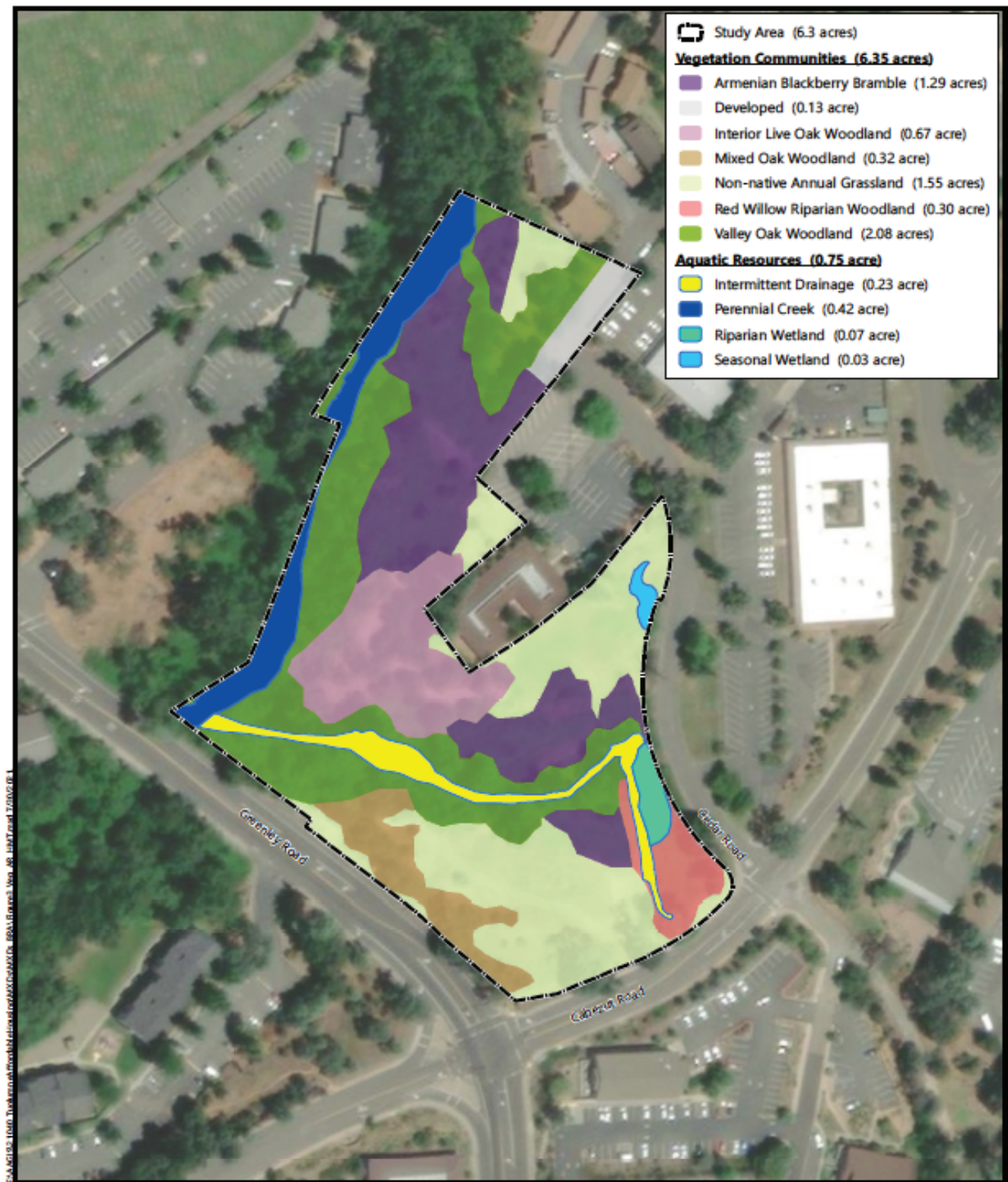
Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations 328 to include navigable waterways, their tributaries, and adjacent wetlands. Jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages, lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Federal and state agencies regulate these waters. In April 2019, the State Water Resources Control Board (SWRCB) adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State*, which covers wetlands not regulated by federal agencies.

Figure 3-1 indicates locations of wetlands and other Waters of the U.S. on the project site. These include 0.419 acres on Sonora Creek along the western boundary of the site and 0.23 acres of an intermittent drainage in the southern portion of the site. They also include a seasonal wetland of 0.028 acres along Cedar Road south of the hospice and a riparian wetland of 0.068 acres along Cedar Road near its intersection with Cabezut Road. The wetlands and Waters of the U.S. on the project site total 0.745 acres.

Section 404 of the Federal Clean Water Act requires that a permit be issued prior to the discharge of any dredged or fill material into Waters of the United States, including wetlands. The U.S. Army Corps of Engineers administers the Section 404 permit program. In addition, California Fish and Game Code Section 1602 requires notification to the CDFW of any proposed activity that may substantially modify a river, stream, or lake, including the deposit or disposal of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Issuance of 404 and 1602 permits ordinarily include mitigation for loss of wetlands, and in the case of 1602 permits, loss of riparian areas, associated with development.

Oaks and Oak Woodlands

The conservation of oaks and oak woodlands in Tuolumne County is addressed in Chapter 9.24 of the Tuolumne County Ordinance Code. Madrone Ecological Consulting mapped oak woodlands on the project site. A total of 3.07 acres of oak woodlands were mapped, consisting of Valley oak woodlands (2.08 acres), interior live oak woodlands (0.67 acres) and mixed oak woodlands (0.32 acres). The distribution of these vegetation types is shown on Figure 3-2.



Aerial Source: Maxar Vivid GE01, 23 June 2019

Figure 3
Vegetation Communities and
Aquatic Resources

Hidden Meadow Terrace
Tuolumne County, California



Figure 3-1

VEGETATION COMMUNITIES AND AQUATIC RESOURCES

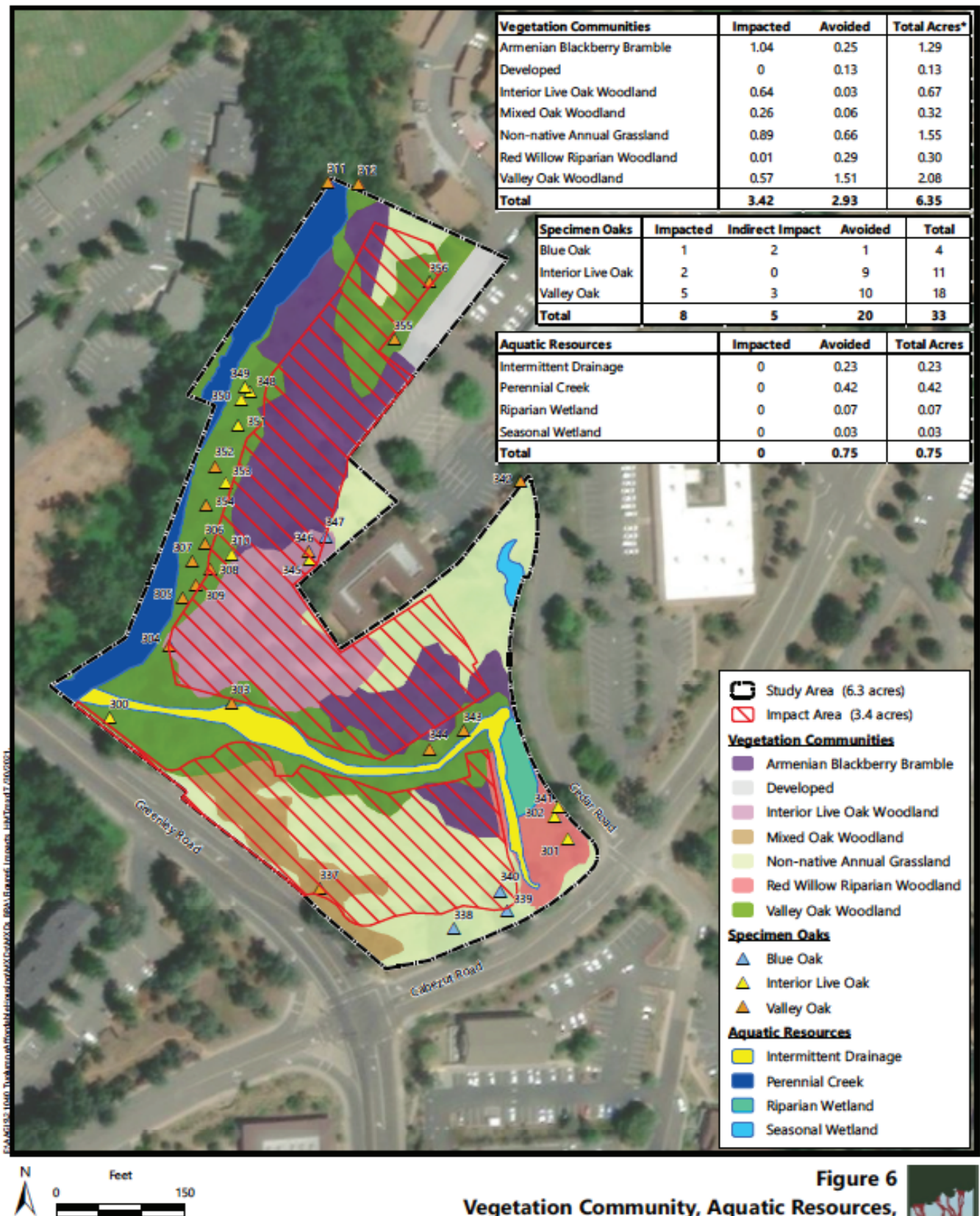


Aerial Source: Maxar Vivid GE01, 23 June 2019

Figure 5
Oak Resources

Hidden Meadow Terrace
Tulumbne County, California





*Rounding may result in small summation errors
 Aerial Source: Maxar Vivid GE01, 23 June 2019

Figure 3-3

BIOLOGICAL RESOURCES IMPACTS

Environmental Impacts and Mitigation Measures

a) Special-Status Species.

As noted, most of the potentially occurring special-status plant and wildlife species were considered unlikely to occur on the project site, mostly because of lack of habitat. As indicated in Table 3-3, potential habitat was identified for six special-status plant species; however, none of these species were detected by the field surveys. Therefore, the probability of their occurrence on the project site is considered low. However, given enough time, plants may become established in areas where suitable habitat exists. USFWS protocols recommend resurvey after three years.

Of the seven special-status wildlife species identified in Table 3-3, five species were considered to have a low probability of occurrence on the project site, as only marginally suitable habitat existed for these species. Two species were considered to have a high probability of occurring on the project site. One of these, the San Joaquin roach, a fish species that is a State Species of Special Concern exists in exclusively aquatic habitat, such as Sonora Creek, a perennial stream, that would not be impacted by the project. The other, the pallid bat, a State Species of Special Concern and identified as a High priority species by the Western Bat Working Group, has access to suitable roosting habitat in tree hollows and under exfoliating bark on trees throughout the site. With the project proposing tree removal, pallid bat could be impacted.

In addition, the Biological Resource Assessment identified the following special-status wildlife species that could be potentially affected by the project:

- *Crotch bumble bee* – While the likelihood of occurrence is low, the project would impact potential foraging and nesting/overwintering habitat for this species.
- *California red-legged frog* - The likelihood of occurrence is low, and aquatic dispersal habitat is not expected to be impacted by project implementation. However, 5.5 acres of adjacent woodlands, blackberry bramble, and annual grasslands that represent potential upland dispersal habitat for this species would be impacted.
- *Western pond turtle* – The likelihood of occurrence is low, and aquatic habitat is not expected to be impacted by project implementation. However, adjacent habitats could provide nesting habitat for this species. If individual turtles or their nests were present during project construction, they could be injured or killed.
- *Townsend's big-eared bat* - While the likelihood of occurrence is low, trees throughout the project site are habitat for this species. If these bats were roosting in trees that are removed by Project construction, they could be injured or killed.

Mitigation described below would minimize potential impacts on special-status wildlife species that may occur on the site. Applied as described, these measures would reduce impacts on these potentially affected special-status species to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-1: If construction work commences after April 1, 2024, special-status plant surveys shall be conducted in areas proposed for construction disturbance. Plant surveys shall be conducted, and potential impacts mitigated, in conformance with the guidelines described in Section 7.2 of the Madrone Biological Resources Assessment (Appendix B of this IS/MND). If construction work commences prior to April 1, 2024, no plant surveys shall be required.

BIO-2: Pre-construction surveys shall be conducted, and necessary avoidance or mitigation measures shall be prescribed, by a qualified biologist in accordance with the procedures described in the referenced sections of the Madrone Biological Resources Assessment (Appendix B of this IS/MND) for the following:

Active bumble bee colony nesting sites, within 14 days prior to construction (BRA Section 7.3). If a colony is found, consultation with CDFW will be necessary and an Incidental Take Permit from CDFW may be required prior to disturbance.

California red-legged frog prior to construction (Section 7.4).

Western pond turtle, within 150 feet of the intermittent and perennial drainages, within 48 hours prior to construction in those areas (Section 7.5).

Roosting bat surveys within 14 days prior to any tree removal that will occur during the breeding season, from April through August (Section 7.7).

BIO-3: Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training shall be prepared and administered to the construction crews. The training program shall address the subject areas described in Section 7.10 of the Madrone Biological Resources Assessment (Appendix B of this IS/MND), and the program shall be submitted to the County Community Development Department for review and approval.

Significance After Mitigation: Less than significant

b) Riparian and Other Sensitive Habitats.

As noted, riparian corridors, shown on Figure 3-1, are located along Sonora Creek and the intermittent drainage; potential project impact areas are shown on Figure 3-3. As CDFW asserts regulatory control over riparian vegetation, CDFW would require formal notification of potential riparian area impacts and possibly the submittal of a Lake and

Streambed Alteration Agreement application. Mitigation described below would require a permit from CDFW for work in these areas, along with minimization and avoidance measures. Implementation of this mitigation measure would reduce impacts to a level that would be less than significant. No other sensitive habitats were identified.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-4: The project applicant shall notify CDFW of the project and its potential impacts and shall apply for a Section 1600 Lake or Streambed Alteration Agreement (LSAA) to determine if LSAA is required. Avoidance and minimization measures shall be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around protected resources, worker environmental awareness training, and installation of project-specific storm water best management practices (BMPs). Mitigation may include restoration or enhancement of resources on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to CDFW.

Significance After Mitigation: Less than significant

c) State and Federal Jurisdictional Wetlands and Waters of the U.S.

Sonora Creek and an on-site intermittent drainage are potential Waters of the U.S. as are a seasonal wetland and a riparian wetland have been identified on the project site. The project as proposed would avoid direct impacts on all these waters. The project proposes a crossing of the intermittent drainage; however, this crossing is designed to span the drainage entirely, thereby avoiding impacts. Proposed outlets for collected storm drainage into the intermittent drainage would be outside the drainage boundaries. With avoidance of these features, neither federal nor State permits for work within these features would be required. Project impacts on State and federal jurisdictional wetlands and Waters of the U.S. would be less than significant.

d) Fish and Wildlife Movement.

The project would not affect aquatic habitat on the project site, so fish movement corridors would not be affected by the project. Tricolored blackbird has the potential to nest within the project site, as do other more common bird species protected by the Migratory Bird Treaty Act. Both nest removal and construction disturbance involve potential impacts on these species. Mitigation described below would reduce impacts on these potentially affected bird species to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-5: If construction activities take place during the typical bird breeding/nesting season (typically February 1 through September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist throughout the project site and all accessible areas within a 250-foot radius of proposed construction areas, no more than 14 days prior to the initiation of construction, in accordance with the specifications of Section 7.6 of the Madrone Biological Resource Assessment (Appendix B of this IS/MND). If nesting birds are discovered, avoidance or mitigation shall be provided consistent with the recommendations of the above-referenced Section 7.6. If no nests are found, no further mitigation is required. If there is a break in construction activity of more than 14 days, then subsequent surveys may be required.

Significance After Mitigation: Less than significant

e) Local Biological Requirements.

The proposed project would involve impacts on oak woodlands (Figure 3-3). The project's impacts on the three oak woodland types are summarized below together with the amount woodland avoided by the project. Impacts on Valley oak woodland would be minimized, approximately 27% of the total on the site. Overall, less than 50% of the oak woodlands on the site would be impacted. Nevertheless, project impacts on oak woodland, the premature conversion of which is prohibited by County Ordinance Code Chapter 9.24, would be potentially significant. Mitigation provided below would compensate for the loss of oak woodland resulting from the project, in accordance with the County oak preservation program, as well as protect any trees that are retained on the project site. Project impacts after mitigation would be less than significant.

TABLE 3-4
PROJECT IMPACTS ON OAK WOODLAND

<u>Vegetation Community</u>	<u>Total (acres)</u>	<u>Impacts (acres)</u>	<u>Avoidance (acres)</u>
Interior Live Oak Woodland	0.67	0.64 (96%)	0.03 (4%)
Mixed Oak Woodland	0.32	0.26 (81%)	0.06 (19%)
Valley Oak Woodland	2.08	0.57 (27%)	1.51 (73%)
Total	3.07	1.47 (48%)	1.60 (52%)

Source: Madrone Ecological Consulting 2012.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-6: The project applicant shall contribute to the Tuolumne Oak Woodland Conservation Fund using the following formula:

$$\text{Fee} = 1.0 \times \text{Acres of Impacted Oak Woodland} \times \text{Current Land Value}$$

The current land value shall be determined by the County.

BIO-7: For all oak trees to be retained, including those within 25 feet of any development activity, the following protective measures shall be implemented prior to any construction activities:

- Brightly colored construction fencing (mesh or silt) shall be placed around the outermost edge of the dripline of each tree or group of protected trees on the sides facing the construction.
- No construction activities shall be conducted within this area, including but not limited to storage of any equipment, parking or storage of any vehicles, and dumping of any trash, soils, fuels, or liquids.
- The construction fencing shall remain in place until all construction activities are completed.
- The existing grade shall be maintained around protected trees to the maximum extent possible.

Significance After Mitigation: Less than significant

f) Conflict with Habitat Conservation Plans.

The project site is not located in an area that is covered by a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the project would not conflict with any habitat conservation plans. The project would have no impact on this issue.

3.5 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 as defined in 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 formal cemeteries?

	✓		
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NARRATIVE DISCUSSION

Information for this section is provided by a Cultural Resources Technical Memorandum prepared for the project by Solano Archaeological Services, except where otherwise cited. Appendix C contains the Technical Memorandum. Activities involved in the preparation of the Technical Memorandum included a records search conducted by the Central California Information Center at California State University Stanislaus, archival and historical map research, and a field survey of the project site conducted on June 22, 2021.

Environmental Setting

Prehistoric Era

The project site and vicinity were traditionally occupied by the Central Sierra Miwok. Section 3.18, Tribal Cultural Resources, discusses the Central Valley Miwok in more detail. This section also describes Senate Bill (SB) 18 and Assembly Bill (AB) 52, both of which involve consultation with Native American tribes on land use issues potentially affecting the tribes.

In its records search, the Central California Information Center found no documented cultural resources within the project site. However, five cultural resource sites were recorded within one-quarter mile of the project site, three of which contained resources from the prehistoric era. These prehistoric resources consist of bedrock mortars, with one site also including lithic scatter.

Historic Era

Although Spanish and Mexican explorers or fur trappers and traders likely travelled through the Sonora area during the early decades of the 19th century, sustained Euro-American settlement did not occur until after 1848 and the beginning of the California Gold Rush. The first miners in the area - known as the Sonorians - were often Mexican veterans of the Mexican-American War and miners from the Mexican state of Sonora. One such Sonorian camp, called the Sonoran Camp, was located on Wood's Creek at the site of present-day Sonora High School. Although the Sonorians tried to keep their claims secret, additional local miners soon discovered their rich diggings along with others along a nearby branch of Woods Creek (later named Sonora Creek). American and immigrant miners soon established a camp known as Scott Town in present-day Coffill Park. The two camps, Sonoran Camp and Scott Town, defined the boundaries of what would become the City of Sonora, and the area was soon populated with gold seekers and merchants who supplied goods and services to the booming population.

Although mining was the predominant industry during the early years of the Gold Rush, not long after the establishment of Sonora Camp and Scott Town, locally available timber began being cut and milled to support the burgeoning towns. The forested hills caught the

attention of Henri Charbonelle and Company, which opened a steam sawmill near the intersection of modern-day Washington and Church streets. The abundant supply of lumber soon brought other sawmills into the area, and by 1852 Sonora was a well-established town.

Following the decline of gold mining and well into the 1880s, Sonora's economy was based primarily on farming and ranching, lumber production, and a slowly growing tourist trade. In the late 1880s and early 1890s, improved machinery and mining techniques made hard-rock quartz mining much more profitable, which resulted in a second "gold rush" within the region. The population grew rapidly as new quartz mills and businesses were established and new homes for the miners were constructed. Sonora's growth was further fueled by the arrival of the Sierra Railroad and the birth of giant lumber companies whose tax revenues provided funding for a county hospital, a new courthouse, and local schools.

By World War I, gold mining had slowed once again, and many people moved to larger metropolitan areas to work in war-related industries. By the Great Depression, most of Sonora's industry had come to a halt, and the County waited for over a decade to see an upturn in the local economy. That upturn would come shortly after the end of World War II. In 1948, the 100-year anniversary of the discovery of gold brought a renewed interest in the regional historic gold towns and Sonora became a major tourist destination.

As noted, the Central California Information Center found no documented cultural resources within the project site. However, five cultural resource sites were recorded within one-quarter mile of the project site, three of which contained resources from the historic era (one site contained both historic and prehistoric resources). These historic resources consist of a water conveyance ditch, a railroad grade, fences and walls, and trash scatter.

Environmental Impacts and Mitigation Measures

a) Historical Resources.

As noted, a records search conducted at the Central California Information Center found no documented historical resources on the project site. The review of historical maps indicated a potential structure at the 20080 North Cedar Road location from 1949 through the 1980s, when the structure was apparently demolished as part of construction of the hospice. The field survey found no traces of this previous structure. Based on these results, the project would have no impact on historical resources.

b) Archaeological Resources.

The Central California Information Center record search demonstrated that no previously documented cultural resources have been identified within or immediately adjacent to the project site. However, five resources, including prehistoric sites, were recorded within the one-quarter mile search radius. Also, the project site is located immediately adjacent to Sonora Creek. Creeks and other perennial water sources were major attractions to prehistoric peoples, and early Native American sites have been identified along the creek in the project vicinity. Consequently, the project site is considered sensitive for retaining prehistoric cultural resources, and it is conceivable that ground disturbance associated with

project construction could unearth archaeological materials of significance that are currently unknown.

Procedures to address archaeological discoveries if they should occur are set forth in the mitigation measure below. Implementation of this mitigation would reduce potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-1: Archaeological monitoring of initial project-related ground disturbances shall be conducted by a qualified professional archaeologist, who shall be retained by the project applicant. If any subsurface cultural resources are encountered during construction of the project, the Tuolumne County Community Development Department shall be notified, and all construction activities within 50 feet of the encounter shall be halted until the archaeologist can examine these materials, determine their significance, and recommend mitigation measures that would reduce potential effects on the find to a level that is less than significant. Recommended measures may include, but are not limited to, 1) preservation in place, or 2) excavation, recovery, and curation by qualified professionals. The project developer shall be responsible for implementing recommended mitigation measures and documenting mitigation efforts in a written report to the County's Community Development Department, consistent with the requirements of the CEQA Guidelines.

Significance after Mitigation: Less than significant

c) Human Burials.

The Technical Memorandum did not identify evidence of any human burials on or in the vicinity of the project site. However, as noted the project site is considered sensitive for retaining prehistoric cultural resources, which may include Native American burials. It is conceivable that project construction activities could uncover a previously unknown burial.

CEQA Guidelines Section 15064.5(e) describes the procedure to be followed when human remains are uncovered in a location outside a dedicated cemetery. All work in the vicinity of the find shall be halted, and the County Coroner shall be notified to determine if an investigation of the death is required. If the remains are determined to be Native American in origin, then the Coroner must contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the most likely descendants of the deceased Native American, and the most likely descendants may make recommendations on the disposition of the remains and any associated grave goods with appropriate dignity. If a most likely descendant cannot be identified, the descendant fails to make a recommendation, or the landowner rejects the recommendations of the most likely descendant, then the landowner shall rebury the remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.

The Technical Memorandum made more specific recommendations on the treatment of any Native American burials that may be encountered during project construction, which are presented in the mitigation measure below. Compliance with this mitigation and with the provisions of CEQA Guidelines Section 15064.5(e) would ensure that any human remains and associated grave goods encountered would be treated with appropriate dignity. Project impacts on human remains would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-2: If human remain are encountered during construction of the project, all construction activities within 50 feet of the encounter shall be halted, and the Tuolumne County Sheriff/Coroner shall be contacted immediately. If the remains are determined to be Native American, the Sheriff/Coroner shall notify the Native American Heritage Commission, which shall in turn appoint a Most Likely Descendent to act as a tribal representative. The Most Likely Descendent shall work with the project proponent and a qualified archaeologist to determine the proper treatment of the human remains and any associated funerary objects. Construction activities shall not resume until either the human remains are exhumed or the remains are avoided via project construction design change.

Significance after Mitigation: Less than significant

3.6 ENERGY

Would the project:

Less Than Significant	Potentially Significant	Incorporated Mitigation with Less Than Significant Impact	No Impact
		✓	
		✓	

a) Result in potentially significant environmental impacts 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?

NARRATIVE DISCUSSION

Environmental Setting

Electricity is a major energy source for residences and businesses in California. In Tuolumne County, electricity consumption in 2019 totaled approximately 452.6 million kilowatt-hours (kWh), of which approximately 238.2 million kWh were consumed by non-

residential uses and the remainder by residential uses (CEC 2019). Tuolumne County also uses propane, heating oil, and woodstoves for space heating (County of Tuolumne 2018a).

Motor vehicle use accounts for substantial energy usage through the consumption of gasoline and diesel fuel. Based on the most recently available information, in 2008, Caltrans projected 41.5 million gallons of gasoline and diesel fuel were consumed in Tuolumne County in 2015 (County of Tuolumne 2018a). While this IS/MND discusses potential impacts of motor vehicle fuel consumption by construction equipment, it does not do the same for motor vehicles associated with project occupancy, as the total vehicle trips are not anticipated to add significantly to vehicle miles traveled (VMT) and thus to fuel consumption (see Section 3.17, Transportation for further discussion).

The State of California has adopted comprehensive energy efficiency standards as part of its Building Standards Code, California Code of Regulations, Title 24. Part 6 of Title 24 is referred to as the California Energy Code. In 2009, the California Building Standards Commission adopted a voluntary Green Building Standards Code, also known as CALGreen, which became mandatory in 2011. CALGreen sets forth mandatory measures, applicable to new residential and nonresidential structures as well as additions and alterations, on water efficiency and conservation, building material conservation, and interior environmental quality. It also mentions energy efficiency, although CALGreen defers to the Energy Code for actions. The County has adopted the 2019 versions of both the California Energy Code and CALGreen.

In 2002, California adopted a Renewables Portfolio Standard, and subsequently modified it in 2006 and 2011. Under the 2011 modifications, all electricity retailers in the state must generate 20% of electricity they sell from renewable energy sources (i.e., solar, wind, geothermal, hydroelectric from small generators, etc.) by the end of 2013, 25% by the end of 2016, and 33% by the end of 2020. As of November 2020, California electricity retail sellers were generally meeting annual targets and were on track to meet the 2020 target (CPUC 2020). In 2015, SB 350 was signed into law, which increased the electricity generation requirement from renewable sources to 50% by 2030. Most recently, in 2018, SB 100 was enacted, which accelerated the schedule for 50% electricity generation from renewable sources to 2026 and set a goal of 60% electrical generation from renewable sources by 2030. It also set the goal that zero-carbon resources will supply 100% of electricity to California by 2045.

Environmental Impacts and Mitigation Measures

a) Project Energy Consumption.

Project construction would involve fuel consumption and use of other non-renewable resources. Construction equipment used for such improvements typically runs on diesel fuel or gasoline. The same fuels typically are used for vehicles that transport equipment and workers to and from a construction site. However, construction-related fuel consumption would be finite, short-term, and consistent with construction activities of a similar character. This energy use would not be considered wasteful, inefficient, or unnecessary.

Electricity may be used for equipment operation during construction activities. It is expected that more electrical construction equipment would be used in the future, as it would generate fewer air pollutant emissions. This electrical consumption would be consistent with construction activities of a similar character; therefore, the use of electricity in construction activities would not be considered wasteful, inefficient, or unnecessary, especially since fossil fuel consumption would be reduced. Moreover, under California's Renewables Portfolio Standard, a greater share of electricity would be provided from renewable energy sources over time, so less fossil fuel consumption to generate electricity would occur.

The most recent Residential Energy Consumption Survey by the U.S. Energy Information Administration found that average annual energy consumption by apartment units in buildings with five or more units located in the western United States was 4,581 kWh of electricity per household (EIA 2018). Based on these factors, proposed development on the project site would consume approximately 384,804 kWh of electricity annually.

The project would be required to comply with applicable provisions of the adopted California Energy Code and CALGreen in effect at the time of project approval. The provisions of these codes are intended to increase energy efficiency of buildings, thereby reducing energy consumption. These include requirements for space-conditioning, water heating, indoor and outdoor lighting, and electrical power distribution systems specific to high-rise residential buildings, along with general requirements for systems, equipment, appliances, and building components that are applicable to all buildings. Compliance with these standards would reduce energy consumption associated with project operations. Overall, project construction and operations would not consume energy resources in a manner considered wasteful, inefficient, or unnecessary. Project impacts related to energy consumption would be less than significant.

b) Consistency with Energy Plans.

The County does not have adopted plans for renewable energy or energy efficiency. However, the County General Plan has several policies and implementation programs that encourage energy conservation and energy efficiency. These include the following:

Policy 18.A.5: Promote energy efficiency and alternative energy while reducing energy demand.

Implementation Program 18.A.q: Encourage the incorporation of energy conservation into the design of residential and commercial buildings; such as Tier 1 and Tier 2 of the Green Building Code.

Policy 18.A.7: Encourage reduced consumption of fossil fuel energy by promoting alternative transportation methods and encouraging pedestrian oriented development to reduce the use of motor vehicles.

As noted, the County has adopted the California Energy Code and CALGreen, both of which contain provisions that promote energy efficiency of buildings. The project would be required to comply with the applicable requirements of these two codes, which would

be consistent with the policies of the County General Plan. Project impacts related to energy plans would be less than significant.

3.7 GEOLOGY AND SOILS

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

b) Result in substantial soil erosion or the loss of topsoil?

c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial 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?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
			✓
		✓	
		✓	
		✓	
		✓	
		✓	
			✓
		✓	

NARRATIVE DISCUSSION

Environmental Setting

Tuolumne County is located primarily within the Sierra Nevada geomorphic province, with an extremely small portion (less than 10 percent) within the Great Valley province. The Sierra Nevada is a tilted fault block nearly 400 miles long. Its east face is a rugged, high-elevation scarp, contrasting with the gentle western slope that disappears under the

sediments of the Great Valley to the west (County of Tuolumne 2018a). The Geologic Map of the San Francisco – San Jose Quadrangle (Wagner et al. 1991) indicates that the underlying geology of the project site consists of granitic rocks.

On the project site, topography generally slopes from east to west, and elevations range from approximately 1,970 feet to 1,995 feet above mean sea level (Madrone Ecological Consulting 2021b). According to a custom soil survey, the following soil types are on the project site (NRCS 2021):

- Cumulic Humixerepts-Riverwash complex, 0 to 8 percent slopes (8110 on Figure 3-3). This soil complex consists of a mix of riverwash and Cumullo Humixerepts soil that ranges from loam to extremely cobbly sandy loam. Approximately 70 percent of the project site has this soil complex.
- Urban land-Sierra-Flanly complex, 3 to 25 percent slopes (9011 on Figure 3-3). This soil complex consists of a mix of urban land, Sierra soils that range from sandy to clay loams, and Flanly soils that are mostly loam. This soil complex is on approximately 30 percent of the project site.

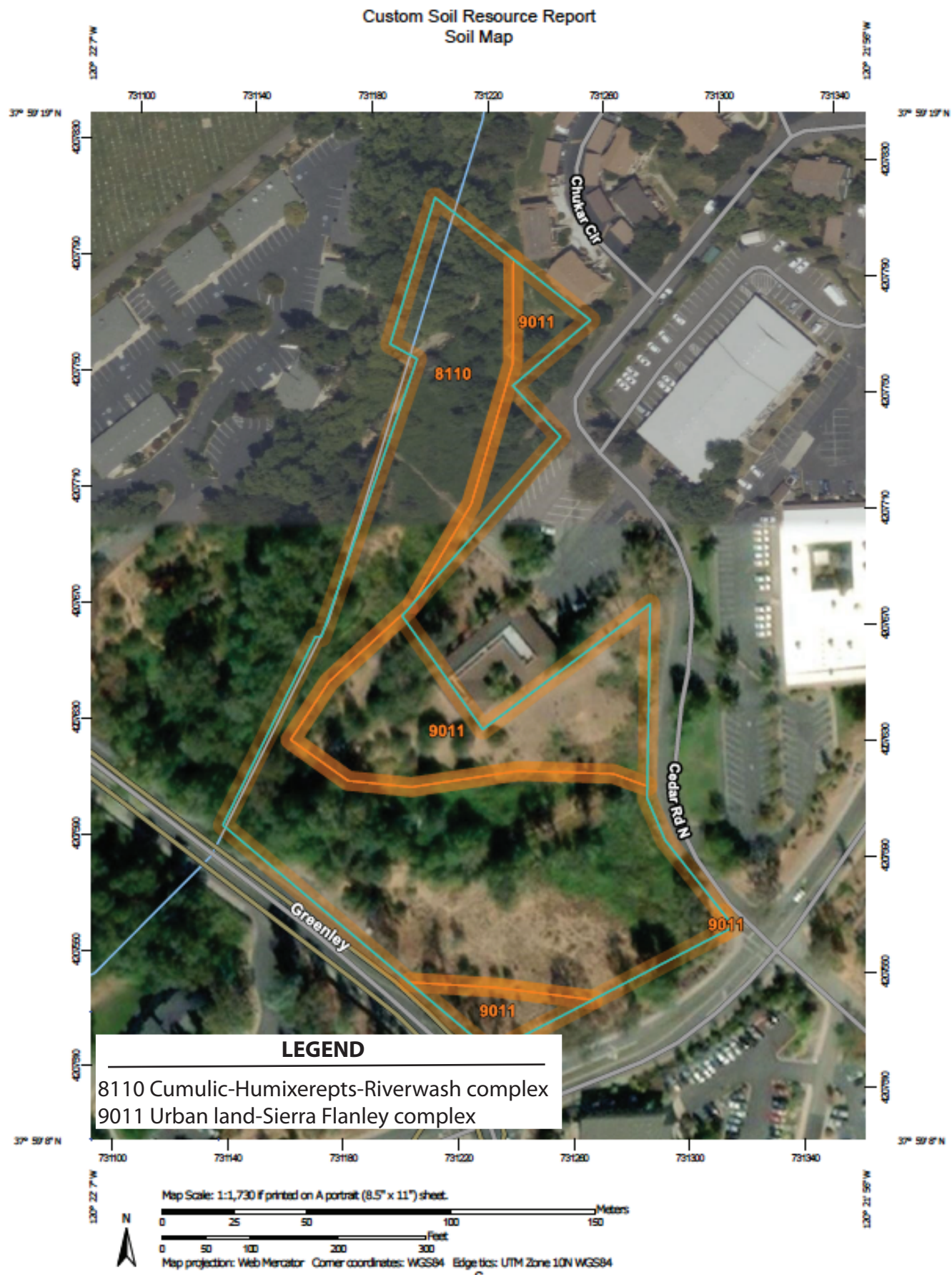
A portion of Tuolumne County is within the Foothills fault system, which is a complex, braided system of individual fault segments that extends for approximately 200 miles from Mariposa in the south to Lake Almanor in the north. There are two primary fault zones within the Foothills fault system: the Melones fault zone along the east side of the system and the Bear Mountain fault zone on the west. The Melones fault zone is classified as “active” (i.e., has demonstrated displacement within the last 100,000 years). The Bear Mountain fault zone is classified as “indeterminable active” (definitive evidence has not been established locally concerning its activity within the last 100,000 years). In addition to the New Melones fault, the Foothill fault system also contains four “capable” faults located in Tuolumne County (County of Tuolumne 2018b).

Historically, earthquake activity in Tuolumne County has been substantially below the state average. A total of four historical earthquake events with recorded magnitudes of 3.5 or greater on the Richter Scale occurred in or near Tuolumne County from 1930 to 2011. These earthquakes did not cause substantial damage due to their occurrence in mountainous and remote areas generally devoid of development or human presence (County of Tuolumne 2018a,b). Most recently, on July 8, 2021, an earthquake of magnitude 6.0 was recorded near Walker in Mono County. This earthquake was felt in Tuolumne County, but no injuries or damage were reported (Union Democrat 2021).

Environmental Impacts and Mitigation Measures

a-i) Fault Rupture Hazards.

No faults have been mapped on the project site. The nearest potentially active fault is approximately five miles southwest of the project site near the community of Jamestown. The project site is not in an area designated as an Alquist-Priolo Earthquake Fault Zone – the nearest such zone is in the Twin Lakes area of Mono County (California Geological Survey 2015). The project would have no impact related to a fault rupture hazard.



a-ii, iii) Seismic Hazards.

As noted above, the County is potentially subject to ground shaking, although significant occurrences are infrequent. Ground shaking represents a hazard to the proposed buildings and infrastructure on the project site. All new buildings in Tuolumne County are required to be built in accordance with the most recent version of the California Building Code adopted by the County. The California Building Code includes seismic safety provisions that require buildings to be constructed to withstand anticipated ground shaking, based on occupancy type.

Liquefaction is the process by which saturated, unconsolidated soil or sand is converted into a quicksand-like suspension during an earthquake. Even well-constructed buildings may “sink” during a major earthquake if foundations are built on areas susceptible to liquefaction (alluvial soils and high-water content). Since liquefaction most likely would occur during or following an earthquake, and severe earthquake risk is deemed to be low in the County, the risk and danger of liquefaction and subsidence occurring within the County is considered minimal (County of Tuolumne 2018a). Project impacts related to seismic hazards would be less than significant.

a-iv) Landslides.

Landslides, rockslides, and debris flows occur continuously on all slopes; some processes act very slowly, while others occur very suddenly. Slopes with the greatest potential for sliding are between 34 degrees and 37 degrees. Natural occurring landslides do not typically occur in the County, and there have been no significant documented incidents of landslides. The slopes on the project site are not as steep as the slopes with the greatest potential for landslides.

Slopes disturbed by grading or development have failed, especially during periods of heavy rainfall, and have resulted in the destruction of infrastructure such as water and sewer lines, electrical and telecommunications utilities, and transportation routes (County of Tuolumne 2018b). The project proposes retaining walls where appropriate to ensure that sliding does not occur as a result of project development. Also, Tuolumne County Ordinance Code Section 12.20.140 requires applicants for a grading permit to submit a soil engineering report when required by the Department. The soil engineering report must include data regarding the nature, distribution and strength of existing soils, and design criteria for corrective measures when necessary. Project impacts related to landslides are considered less than significant.

b) Soil Erosion.

Project construction activities would disturb and loosen soils on the project site, making them susceptible to water erosion. The Tuolumne County Grading Ordinance (Tuolumne County Ordinance Code Chapter 12.20) sets forth regulations for the construction and maintenance of excavations, site reclamation, drainage control, and stockpiling, as well as for protection of exposed soils surfaces and cut and clearing of vegetation.

For all projects that disturb one acre of land or more a Construction General Permit is required from the SWRCB. The permit requirements include preparation of a Storm Water

Pollution Prevention Plan (SWPPP) by a Qualified SWPPP Developer to address potential water quality issues. A SWPPP specifies the Best Management Practices (BMPs) needed to avoid or minimize adverse water quality impacts. Construction BMPs fall within the general categories of Temporary Soil Stabilization, Temporary Sediment Control, Wind Erosion Control, Tracking Control, Non-Storm Water Management, and Waste Management and Materials Pollution Control. BMPs applicable to the project are incorporated in the SWPPP as required. These BMPs are anticipated to include hydroseeding any disturbed soils to aid with erosion control measures and permanent straw wattles and potentially an erosivity blanket/geo-mat, based on the slope and height of the disturbed areas. BMPs are incorporated into project improvement plans and specifications, subject to the approval of the County Engineer. Under the Construction General Permit, BMP function and effectiveness must be monitored and reported, and remediation is required to address pollution occurrence.

Required compliance with the Grading Ordinance and the Construction General Permit and its conditions would minimize the amount of soil erosion that may occur on the project site during construction, thereby reducing soil erosion impacts to a level that would be less than significant.

c) Geologic Instability.

Land subsidence is the gradual settling or sinking of an area with very little horizontal motion, because of changes taking place underground. Subsidence can be induced by natural phenomena such as shifting of tectonic plates and dissolution of limestone resulting in sinkholes. Although there is carbonate rock in the vicinity of Columbia and Sonora, there has been no documented damage associated with subsidence (County of Tuolumne 2018b).

Subsidence related to human activity includes pumping water, oil, or gas from underground reservoirs; collapse of underground mines; drainage of wetlands; and soil compaction. Sinkhole activity from abandoned mining activity has occurred, and could possibly occur again, in the Jamestown and Sonora areas. However, the probability and potential severity of subsidence are considered low (County of Tuolumne 2018b).

Sinkholes have been identified as a potential hazard in Tuolumne County. A sinkhole is a natural depression or hole in the earth's surface caused by the chemical dissolution of carbonate rocks. Sinkholes may also develop as a result of previous mining activity. Miles of abandoned tunnels and shaft exist in the Mother Lode areas west of Jamestown and portions of the City of Sonora, and sinkhole activity in these areas has occurred. However, there is no documented sinkhole damage in the underlying carbonate rock formations found in the vicinity of Sonora (County of Tuolumne 2018b). Neither the soil survey nor the Geologic Map of the San Francisco – San Jose Quadrangle indicate the presence of carbonate rocks on the project site. The California Department of Conservation abandoned mines database indicated no abandoned mines in the project vicinity (California Department of Conservation 2021). Based on this information, project impacts related to geologic instability are considered less than significant.

d) Expansive Soils.

Clay materials, present in soils as a weathering product and as native sediments, have the potential for expansion and contraction when they go through wet/dry cycles. Expansive soils (also known as shrink-swell soils) are soils that contain expansive clays that can absorb significant amounts of water into their crystalline structure. Soils with clay content have been mapped throughout the County and may be susceptible to expansion (SCS 1964).

The Cumulic Humixerepts-Riverwash complex, which is the predominant soil type on the project site, does not contain substantial amounts of clay and therefore would have low expansive potential. The Urban land-Sierra-Flanly complex does contain clay loam in the Sierra and Flanly components, which constitute almost half of the composition of this complex (NRCS 2021).

Tuolumne County Ordinance Code Section 12.20.140 requires applicants for a grading permit to submit a soil engineering report when required by the Department. The soil engineering report must include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures when necessary. The project would require substantial grading, and a soil engineering report will be required. In addition, the California Building Code contains a provision that provides for a preliminary soil report to be prepared to identify the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects. Compliance with the recommendations, and corrective measures described in the soil engineering report together with applicable California Building Code requirements would reduce project impacts related to expansive soils to a level that would be less than significant.

e) Adequacy of Soils for Sewage Disposal.

The project would be connected to the wastewater system operated by the TUD. It does not propose to install any septic system or other onsite wastewater disposal system. Because of this, the project would have no impact related to soil adequacy for sewage disposal.

f) Paleontological Resources and Unique Geological Features.

Most of the County, especially in the Sierra Nevada mountains, is underlain by granitic and volcanic rocks which are generally not fossil-bearing. Paleozoic marine rocks occur in the western portion of the County and may contain fossils of marine invertebrates. A pocket of Plio-Pleistocene and Pliocene loose consolidated deposits, occurring along State Route 108 southwest of Jamestown and northwest of Chinese Camp, may contain evidence of Pleistocene-era large mammals. Records of paleontological finds maintained by the University of California Museum of Paleontology state that there are 72 localities at which fossil remains have been found in Tuolumne County. These occur primarily in the Mehrten geologic formations (County of Tuolumne 2018a).

The project site is not located within any of the areas of the County that may contain paleontological resources. As noted, the geology of the project site is underlain by granitic rock. Therefore, it is unlikely that any paleontological resources would exist within the project site. Project impacts on paleontological resources would be less than significant.

3.8 GREENHOUSE GAS EMISSIONS

Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
		✓	✓		

NARRATIVE DISCUSSION
Environmental Setting
GHG Background

Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. GHGs are both naturally occurring and are emitted by human activity. GHGs include carbon dioxide, the most abundant GHG, as well as methane, nitrous oxide, and other gases. GHG emissions in California in 2018, the most recent year for which data are available, were estimated at approximately 425 million metric tons carbon dioxide equivalent (CO₂e) – a decrease of approximately 13% from the peak level in 2004. Transportation was the largest contributor to GHG emissions in California, with approximately 40% of total emissions. Other significant sources include industrial activities, with approximately 21% of total emissions, and electric power generation, both in-state and imported, with approximately 15% of total emissions (ARB 2020).

A countywide emissions inventory conducted in 2010 found that Tuolumne County generated 782,846 metric tons CO₂e of GHGs that year. Sources for these emissions included transportation, residential and non-residential energy consumption, off-road vehicles and equipment, agriculture and forestry, wastewater, and solid waste (County of Tuolumne 2018c). No information more recent than 2010 is available.

The State of California has prepared Climate Change Assessments that provide scientific assessments on the potential impacts of climate change in California by region. Potential climate change impacts occurring in the Sierra Nevada region, which includes Tuolumne County, include the following (Dettinger et al. 2018):

- Acceleration of warming across the region by an average of 6 to 10 degrees Fahrenheit.
- Greater extremes in precipitation - increased winter streamflow and floods alternating with more intense and frequent drought.
- Loss of snowpack.
- More severe and frequent wildfires.
- Disruption of ecosystems, particularly high-elevation and old-growth mixed conifer forests.

Unlike the criteria air pollutants described in Section 3.3, Air Quality, GHGs have no “attainment” standards established by the federal or State government. In fact, GHGs are not generally thought of as traditional air pollutants because their impacts are global in nature, while air pollutants mainly affect the general region of their release to the atmosphere. Nevertheless, the U.S. Environmental Protection Agency (EPA) has found that GHG emissions endanger both the public health and public welfare under Section 202(a) of the Clean Air Act due to their impacts associated with climate change (EPA 2009).

GHG Emission Reduction Plans

The State of California has implemented GHG emission reduction strategies through AB 32, the Global Warming Solutions Act of 2006, which requires total statewide GHG emissions to reach 1990 levels by 2020, or an approximately 29% reduction from 2004 levels. In compliance with AB 32, the State adopted the Climate Change Scoping Plan in 2008 and updated the plan in 2014. Primary strategies addressed in the original Scoping Plan included new industrial and emission control technologies; alternative energy generation technologies; advanced energy conservation in lighting, heating, cooling and ventilation; fuels with reduced carbon content; hybrid and electric vehicles; and methods for improving vehicle mileage (ARB 2008). The 2014 update highlights California’s progress toward meeting the 2020 GHG emission reduction goal of the original Scoping Plan, and it establishes a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050 (ARB 2014). The 2018 state GHG emissions were approximately six million metric tons CO₂e below the 2020 target established by AB 32 (ARB 2020).

In 2016, SB 32 was enacted. SB 32 extends the GHG reduction objectives of AB 32 by mandating statewide reductions in GHG emissions to levels that are 40% below 1990 levels by the year 2030. The State has adopted an updated Scoping Plan that sets forth strategies for achieving the SB 32 target. The updated Scoping Plan continues many of the programs that were part of the previous Scoping Plans, including the cap-and-trade program, low-carbon fuel standards, renewable energy, and methane reduction strategies. It also addresses, for the first time, GHG emissions from the natural and working lands of California, including the agriculture and forestry sectors (ARB 2017).

Cities and counties throughout California have prepared Climate Action Plans that outline how the local government will reduce GHG emissions, which have been typically related to the 2020 emission reduction target set in the State’s Climate Change Scoping Plan. The County is currently in the process of preparing a Climate Action Plan in accordance with County General Plan Policy 18.A.1 and Implementation Programs 18.A.a and 18.A.b. No Climate Action Plan has yet been adopted by the County.

Environmental Impacts and Mitigation Measures

a, b) Project GHG Emissions and Consistency with GHG Reduction Plans.

The CalEEMod model estimated the total GHG construction and operational emissions associated with the project (see Appendix A). Table 3-5 presents the results of the CalEEMod run. “Mitigated emissions” are the result of project compliance with applicable laws, rules, and regulations, along with inclusion of project features that reduce GHG emissions. These include the following:

- The density of residential development on the project site (approximately 12 dwelling units per acre).
- The project site is approximately 0.1 miles from a transit stop and 0.9 miles from downtown Sonora.
- The project offers all its apartment units at a rent affordable to specified lower-income households.
- SB X7-7, enacted in 2009, sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020. The California Green Building Code mandates a 20% reduction in indoor water use.
- AB 341 establishes the goal of diverting 75% of California’s waste stream from landfills by 2020.

Construction GHG emissions would not change with the application of these measures. However, they would be limited due to the length of time of construction activity; these emissions would cease once work is completed. Based on CalEEMod modeling results, mitigated operational GHG emissions would be approximately 29.6% less than under business-as-usual (unmitigated) conditions.

TABLE 3-5
PROJECT GHG EMISSIONS

GHG Emission Type	Unmitigated Emissions	Mitigated Emissions
Construction ¹	179.0	179.0
Operational ²	582.2	409.8

¹ Total GHG emissions for construction period in metric tons carbon dioxide equivalent (CO₂e).

² Annual emissions in metric tons CO₂e.

Sources: California Emissions Estimator Model v. 2020.4.0.

As the County has not yet adopted a Climate Action Plan, the focus of this analysis is on the State's Scoping Plan. The 2017 Scoping Plan proposes various measures to achieve the 2030 target set under SB 32. Most of these are State measures, such as use of the cap-and-trade program, the Short-Lived Climate Pollutant Plan, and achievement of the 50% renewable sources of electricity in the Renewables Portfolio Standard. Based on estimates in the 2017 Scoping Plan, State actions would account for 89.8% of GHG reductions needed by 2030, with local actions responsible for approximately 9.3% of reductions to meet the 2030 target. A project that can show GHG reductions greater than 9.3% can be said to be consistent with the reduction goals of SB 32. The 29.6% reduction associated with project operational emissions would exceed the local contribution by more than 200%. Therefore, the project would be consistent with the reduction goals of SB 32. Impacts related to GHG emissions and GHG reduction plans are considered less than significant.

3.9 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 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 a significant risk of loss, injury or death involving wildland fires?			✓	

NARRATIVE DISCUSSION

Environmental Setting

This section focuses on hazards associated with hazardous materials, proximity to airports, and wildfires. Geologic and soil hazards are addressed in Section 3.7, Geology and Soils, and potential flooding hazards are addressed in Section 3.10, Hydrology and Water Quality.

Data on recorded hazardous material sites are kept in the GeoTracker database, maintained by the SWRCB, and in the EnviroStor database, maintained by the California Department of Toxic Substances Control (DTSC). Both GeoTracker and EnviroStor provide the names and addresses of documented hazardous material sites, along with their cleanup status. A search of both GeoTracker and EnviroStor databases indicated no hazardous material sites, either active or inactive, on or in the immediate vicinity of the project site (SWRCB 2021, DTSC 2021). The nearest recorded active hazardous material site is Sierra Launderers and Cleaners, on 407 North Washington Street in Sonora, approximately one mile west of the project site.

A list of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit did not show any locations in the County (CalEPA 2021a). Likewise, a list by SWRCB containing sites under Cease and Desist Orders and Cleanup and Abatement Orders showed no locations on or near the project site (CalEPA 2021b). The County has established a mutual aid agreement with neighboring Calaveras County for the response of their Hazardous Materials Response Team. This team is made up of individuals from a variety of participating fire departments in Calaveras County (County of Tuolumne 2018b).

Wildland fires are an annual hazard in Tuolumne County. They are predominantly, four out of every five times, generated by humans. As a natural hazard, a wildfire is often the direct result of a lightning strike. These lightning-induced fires often occur in remote undeveloped areas and spread to urban areas where structures and other human development are more concentrated. (County of Tuolumne 2018b). Section 3.20, Wildfire, discusses wildfire hazards in more detail.

Environmental Impacts and Mitigation Measures

a) Hazardous Material Transport, Use, and Storage.

Hazardous materials that are likely to be used and stored on the project site would include cleaning products, and pesticides, herbicides, and fertilizers for landscaping. None of these hazardous materials are likely to be stored or used in large quantities.

Facilities that store significant amounts of hazardous materials are required to prepare a Hazardous Material Business Plan that would be submitted to the County Environmental Health Department. The Hazardous Material Business Plan must be prepared by any

facility that handles a hazardous material, or mixture containing a hazardous material, of a quantity at any one time during the reporting year equal to or greater than 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for a compressed gas. None of the hazardous materials to be used by the project are anticipated to be handled or stored in such quantities at any one time. Project impacts related to transport, use, or storage of hazardous materials would be less than significant.

b) Release of Hazardous Materials.

Construction activities on the project site may involve the use of hazardous materials such as fuels and solvents, and thus create a potential for hazardous material spills. Construction and maintenance vehicles would transport and use fuels in ordinary quantities. Fuel spills, if any occur, would be minimal and localized and would not typically have significant adverse effects. Potential hazardous materials spills during construction are addressed in the required SWPPP, described in Section 3.7, Geology and Soils. In accordance with SWPPP requirements, contractors have absorbent materials at construction sites to clean up minor spills. Other substances used in the construction process would ordinarily be stored in approved containers and used in relatively small quantities, in accordance with the manufacturers' recommendations and/or applicable regulations.

As noted in a) above, project operations would not involve the transport, use, or storage of hazardous materials in substantial quantities. Any releases of these materials are not expected to be in quantities large enough to pose a threat to human health and the environment. Overall, impacts related to releases of hazardous materials would be less than significant.

c) Hazardous Materials Releases near Schools.

There are no schools within one-quarter mile of the project site. The nearest school facility is Sonora Elementary School on 830 Greenley Road, approximately one-half mile to the south. As noted in b) above, project construction and operations would not require the handling or transport of acutely hazardous materials or waste at amounts that would endanger schools or the public. The project would not produce hazardous emissions. The use of small quantities of hazardous materials during project construction would be limited to the project site. The project would have no impact related to hazardous material releases near schools.

d) Hazardous Materials Sites.

As previously noted, a search of the GeoTracker and EnviroStor databases, along with SWRCB lists, did not identify any active hazardous material sites on or near the project site. The nearest such site is one mile to the west. The project would have no impact related to hazardous material sites.

e) Public Airport Operations.

There are no airports in the Sonora/East Sonora area. The nearest airport to the project site is Columbia Airport, approximately 3.75 miles to the northwest. The project site is not within any of the airport zones established for Columbia Airport under Tuolumne County

Ordinance Code Chapter 18.28 – Airport Approach. The project would have no impact related to potential airport hazards.

f) Emergency Response and Evacuations.

The project would not affect access on roadways adjacent to the project site - Cedar Road, Greenley Road, and Cabezut Road – once the project is completed. During project construction, construction of proposed access ways, connections to utility lines and other street frontage improvements such as curb, gutter, and sidewalk could potentially encroach on traffic lanes on Greenley Road, Cedar Road and Phoebe Lane such that emergency response to or emergency evacuation from the site could be affected. Such limitations, if any, would be of short duration. Nevertheless, this impact is considered potentially significant. Mitigation presented below would ensure that access would be maintained during construction activities within adjacent to or within the public streets, thereby reducing impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

HAZ-1: Prior to the start of project construction, the applicant's contractor shall prepare and implement a Traffic Control Plan, which shall include such items as traffic control requirements, resident notification of access closure, and daily access restoration. The contractor shall specify dates and times of road closures or restrictions, if any, and shall ensure that adequate access will be provided for emergency vehicles. The Traffic Control Plan shall be reviewed and approved by the County Department of Public Works and shall be coordinated with the Tuolumne County Sheriff's Department and the Tuolumne County Fire Department if construction will require road closures or lane restrictions.

Significance After Mitigation: Less than significant

g) Wildland Fire Hazards.

The project site is in an area that is partially developed but also has vacant land susceptible to wildfires. As noted in Section 3.20, Wildfire, the project site is designated within a Very High Fire Hazard Severity Zone by the California Department of Forestry and Fire Protection (Cal Fire). The project would reduce the existing fire hazard on the site by replacing much of the existing vegetation with developed and paved areas. Also, Tuolumne County Ordinance Code Chapter 15.20 sets fire safety standards for development, including setbacks, defensible space, and fuel modification. Project impacts related to wildland fire hazard would be less than significant. Refer to Section 3.20, Wildfire, for more detailed discussion.

3.10 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 runoff 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 off-site?			✓	
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?			✓	
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?				✓

NARRATIVE DISCUSSION

Environmental Setting

Surface waters on the project site include Sonora Creek, located along the northwestern boundary of the project site and an intermittent tributary originating near the intersection of Cabezut Road and Cedar Road. Sonora Creek is mapped as a perennial stream; is a moderate-gradient rocky creek with moderately incised banks and an established band of riparian vegetation. Flows within the creek appear to vary based upon precipitation events (Madrone Ecological Consulting 2021a). Sonora Creek flows through the City of Sonora before discharging into Woods Creek. Woods Creek is a tributary to the Tuolumne River, which in turn flows into the San Joaquin River (Madrone Ecological Consulting 2021b).

The intermittent tributary drainage flows onto the project site from a culvert outfall along Cabezut Road and flows west into Sonora Creek. Water was flowing within this drainage at the time of a survey conducted in April 2021, but the flow had ceased by the time another survey was conducted in June 2021 (Madrone Ecological Consulting 2021a).

Surface water quality in the County is maintained through the County's Water Quality Plan, developed consistent with the federal National Pollutant Discharge Elimination System (NPDES) program and with the SWRCB's Municipal Separate Storm Sewer Systems (MS4) General Permit. The Water Quality Plan includes pre-construction, construction, and post-construction activities that involve standardized practices and BMPs designed to protect surface water quality (County of Tuolumne 2007). Currently, no community in Tuolumne County is subject to the MS4 permit; however, the County expects it is only a matter of time before communities will be subject (Ruby, electronic mail).

Groundwater in the County is limited due to the hard, impermeable bedrock that covers most of the County. The majority of available groundwater is transient and found in fractured rock (TUD 2021). No known groundwater wells are on the project site.

A Flood Insurance Rate Map prepared by the Federal Emergency Management Agency (FEMA) indicates that the project site is designated Zone X. Zone X is considered an area of minimal flood hazard. It is outside a delineated 100-year floodplain – the floodplain commonly used to assess potential flooding impacts and considered a Special Flood Hazard Area (FEMA 2009).

Environmental Impacts and Mitigation Measures

a) Surface Water Quality.

The project would not directly affect surface waters. As discussed in Section 3.4, Biological Resources, the project proposes no disturbance of Sonora Creek or the onsite intermittent drainage. As noted in Section 3.7, Geology and Soils, construction activities would disturb soils and soil materials, which could be transported off site by runoff and could eventually enter surface waters.

Project development and operation would lead to contamination of storm runoff with fuels, oils, metals, and other substances associated with motor vehicles, particularly from the parking areas. Storm water from areas of new development must be treated using the post-construction BMPs specified in the SWPPP. These measures will be specified and subject to County review and approval during the design phase of the project. Developers are required to enter into an agreement for maintenance of the post-construction BMPs.

As noted, surface water quality in the County is maintained through implementation of construction and post-construction activities described in the County's Water Quality Plan. Also, Tuolumne County Ordinance Code Chapter 15.28, which sets forth requirements for landscaping, includes a section that encourages the incorporation of stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration.

In addition, although no community in the County is currently subject to the MS4 permit, the project proposes to incorporate treatment measures consistent with the State's Phase II MS4 permit standards. As specified in the SWRCB order related to the MS4 permit, post-construction standards may include, but are not limited to, the following (SWRCB 2019):

- Site design measures such as stream setbacks and buffers and tree planting and preservation.
- Source control measures for pollutant-generating activities such as landscape/outdoor pesticide use and building and grounds maintenance.
- Low Impact Development design standards.

Implementation of, and compliance with, the above measures would reduce potential water quality impacts to a level that would be less than significant.

b) Groundwater Supplies.

The project would be connected to the TUD potable water system, which obtains almost all of its water supply from surface waters. The project does not propose to drill any wells or otherwise involve any direct effects on groundwater resources.

The project would replace an existing vacant area of grasses and weeds with urban development and pavement. This would reduce the amount of precipitation that would percolate into the ground at the site, thereby reducing groundwater recharge. However, a portion of diverted rainfall would be directed to post-construction BMPs where it would be detained, allowing runoff to percolate into project site soils. In addition, approximately 46% of the project site would remain undeveloped. The landscaping requirements in Tuolumne County Ordinance Code Chapter 15.28 encourages the installation of infiltration beds and pervious surfaces, among other features, that would promote percolation and groundwater recharge. Project impacts on groundwater would be less than significant.

c-i, ii, iii) Drainage Patterns and Runoff.

Under existing conditions, precipitation on the project site either percolates into the ground or drains into Sonora Creek. The project would alter existing storm drainage patterns, due to site grading and the installation of buildings and pavement. In addition, proposed improvements on the project site would result in the generation of additional runoff due to the introduction of impervious surfaces.

As noted in a) and b) above, County landscaping requirements encourages the incorporation of stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration, plus post-construction BMPs would be implemented. Post-construction BMPs the project would implement would include:

- Maintain natural slopes and vegetation wherever possible
- Minimize the amount of impervious surfaces onsite

- Disconnect roof drain downspouts from storm drain system where possible
- Direct runoff from impervious areas through treatment device prior to discharge into the existing drainage channels
- Preserve existing trees onsite where able
- Maintain setback from creeks and wetlands and avoid disturbance of riparian areas as much as possible

In addition, per the County's compliance with anticipated MS4 requirements, new development is required to reduce pollutant and runoff flows using BMPs to the maximum extent practicable. MS4 permittees must also comply with Low Impact Development (LID) standards. Development projects are typically required to demonstrate hydromodification management of stormwater such that post-project runoff is maintained equal to or below pre-project flow rates for the 2-year, 24-hour storm event, generally by way of infiltration, rooftop, and impervious area disconnection, bio-retention, or other LID measures that result in post-project flows that mimic pre-project conditions.

Implementation of these measures would avoid potential off-site drainage impacts and minimize the impacts of additional runoff. Project impacts on drainage and runoff would be less than significant.

c-iv) Flood Flows.

As noted, the project site is not within a 100-year floodplain as indicated by the FEMA map for the area. Because of this, the project would be unlikely to impede or redirect any flood flows. The project would have no impact related to flood flows.

d) Other Flooding Hazards.

There are 44 dams in Tuolumne County, ranging from those that create large reservoirs for irrigation, water supply, or power generation, to smaller impoundments which are part of water distribution or treatment systems or intended to provide a recreational amenity. (County of Tuolumne 2018b). The Tuolumne County General Plan EIR identified inundation areas for 21 dams (County of Tuolumne 2018a). The project site is within none of these areas. The project site is away from the coast, and there are no large bodies of water in the vicinity. Therefore, the project would not be affected by seiche or tsunamis. Project impacts related to other flooding hazards would be less than significant.

e) Conflict with Water Quality or Groundwater Plans.

As described above, the project would be required to comply with the provisions of the County's Water Quality Plan, which is designed to maintain local water quality. No groundwater plans apply to the project site. The project would have no impact related to water quality or groundwater plans.

3.11 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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

The project site is in a developing area in the unincorporated community of East Sonora. The site surrounds an existing hospice facility west of Cedar Road. East of Cedar Road are the offices of the Tuolumne County Public Health Department and Tuolumne County Department of Social Services. The Quail Hollow One apartment complex extends northeast of the project site. Northwest across Sonora Creek from the project site are medical office buildings and the Mountain Shadow Cemetery. Land uses west of the site across Greenley Road consist of apartment complexes, and lands south of the site across Cabezut Road consist of mixed commercial and medical offices and the Kingdom Hall of Jehovah's Witnesses. Vacant lands in the area are distributed along the Sonora Creek corridor.

The Tuolumne County General Plan, the latest version of which was adopted in 2018, establishes the community's vision for the development of Tuolumne County through the year 2040 and serves as the fundamental land use policy document for the County. As noted in Chapter 2.0, Project Description, the current County General Plan designation for the project site is Neighborhood Commercial (NC).

Volume III of the County General Plan contains the East Sonora Community Plan, the coverage area of which includes the project site. The East Sonora Community Plan allows for greater local input into the planning, growth, and development of the community of East Sonora. This plan has been formulated to be consistent with the Tuolumne County General Plan but contains certain policies and implementation programs to meet specific needs of the East Sonora Community. Policies and implementation programs from the East Sonora Community Plan relevant to the project include:

- Policy ES-A.2: Require new residential development that is subject to a discretionary entitlement to be designed in accordance with the East Sonora Design Guidelines.
- Policy ES-A.6: Require new urban residential development to provide amenities such as pedestrian walkways, bicycle paths, street lights, landscaping and

recreational facilities.

- Implementation Program ES-A.c: Require new residential development of five or more units to participate in the provision of recreational facilities as follows:
 - Recreation facilities for multiple family housing projects will be provided on site.
- Policy ES-E.2: Encourage and support voluntary efforts to protect and enhance Sullivan Creek, Elsey's Pool, Curtis Creek, Sonora Creek and associated riparian vegetation for scenic and recreational values.
- Implementation Program ES-E.e: Limit the number of road crossings of streams, creeks and other tributaries of Sullivan, Sonora, and Curtis Creeks to minimize impacts of riparian habitat as a condition of approval of entitlements for new development.

The County's Zoning Ordinance (Tuolumne County Ordinance Code Title 17) is designed to implement the County General Plan with respect to the general pattern of future land uses and to set development standards derived from the principles for future land development expressed in the County General Plan. The current zoning on the project site is C-O, Neighborhood Commercial.

Environmental Impacts and Mitigation Measures

a) Division of Established Communities.

The project would be constructed within a developing area of East Sonora. Development in the general project vicinity consists of mostly offices, with apartment development to the northeast; other multi-family residential areas are located west of Greenley Road. The project would not divide existing residential areas. The project would not divide any of these residential communities or inhibit transportation or communication between these areas or nearby commercial areas. The project would have no impact on division of established communities.

b) Conflicts with Plans, Policies and Regulations Mitigating Environmental Effects.

Currently, project development would not be consistent with the County General Plan designation and zoning for commercial development of the site. Neither allows for the proposed high-density residential development. The project applicant has applied for a General Plan Amendment and a rezoning as a part of the project that would allow the proposed residential development. This would be consistent with the goals of SB 330, which encourage local governments to allow for more affordable housing.

The proposed General Plan Amendment, rezoning, and residential development would not be inconsistent with existing development in the area. High density residential development has occurred immediately northeast of the project site and immediately west of the site across Greenley Road. There are no single-family residential areas in the project vicinity. High density residential development is consistent with nearby commercial office uses.

The project, by providing affordable housing for lower-income households, would be consistent with the objectives of the County’s Housing Element. The project would also be consistent with other County General Plan policies and implementation measures designed to avoid or mitigate environmental effects, as listed in Table 3-6 below.

**TABLE 3-6
PROJECT CONSISTENCY WITH SELECTED COUNTY GENERAL PLAN
POLICIES**

General Plan Policy	Consistency Determination
<i>Chapter 1 – Community Development and Design</i>	
Policy 1.A.1: Promote the efficient use of land to conserve natural resources.	<i>Consistent</i> – The project uses land in a predominantly developed area for residential development, while minimally affecting existing natural resources on the project site.
Policy 1.A.3: Address the impacts associated with new development on cultural resources and conserve such resources where appropriate.	<i>Consistent</i> – The project IS/MND addresses potential impacts on cultural resources and proposes mitigation measures should any such resources be encountered during project construction (see Section 3.5, Cultural Resources).
Policy 1.A.4: Focus urban growth in identified communities, emphasizing infill development and the intensified use of existing development	<i>Consistent</i> – The project proposes residential development in an area of East Sonora already substantially developed with residential, medical office, and County government land uses.
Policy 1.B.1: Protect existing land uses from the infringement of and impacts associated with incompatible land uses.	<i>Consistent</i> – The project would be consistent with nearby residential land uses and would not conflict with medical office and governmental land uses. The residents of the project would be close to medical and governmental services.
Policy 1.B.5: Preserve the existing nighttime environment by limiting the illumination of areas surrounding new development. New lighting that is part of residential, commercial, industrial, or recreational development shall be oriented away from off-site sensitive uses, and shall be hooded, shielded, and located to direct light downward and prevent glare.	<i>Consistent</i> - The project would comply with the East Sonora Design Guidelines, which contains guidance on reducing impacts of new lighting.
Policy 1.D.3: Encourage urban residential development projects in identified communities to be located within a quarter mile of a transit stop.	<i>Consistent</i> – A Tuolumne County Transit bus stop is located near the Tuolumne County Social Services building across Cedar Road from the project site, which would encourage more bus trips and fewer motor vehicle trips.

TABLE 3-6
PROJECT CONSISTENCY WITH SELECTED COUNTY GENERAL PLAN
POLICIES

General Plan Policy	Consistency Determination
Chapter 3 – Utilities	
Policy 3.A.1: Encourage the siting of new urban development either within or adjacent identified communities to maximize the use of existing infrastructure and encourage the logical extension of public water services infrastructure. When new urban development is proposed to be located outside but adjacent to identified communities, it should be located in proximity to existing water supply infrastructure.	<i>Consistent</i> – The project is within an area currently served by TUD water facilities. No water line extensions would be required.
Policy 3.A.3: Continue to require new urban residential development with a density of one dwelling unit per two acres, or greater, and commercial development, except on land designated as Special Commercial (SC) by the General Plan land use diagrams, to be served with public water.	<i>Consistent</i> – The project would be served by water from TUD with no facility extensions or additional water supplies required.
Policy 3.B.2 Consider whether the water system proposed to serve a new development has a reliable source of water, sized to serve their existing and future customer's' foreseeable demands. Projects shall only be approved where the water supply system has reliable sources of water capable of meeting present and future demands.	<i>Consistent</i> – The IS/MND has determined that adequate water supplies exist to serve the proposed project. No additional water supplies are needed (see Section 3.19, Utilities and Service Systems).
Policy 3.D.2: Encourage new urban development to be served by public sewer systems.	<i>Consistent</i> – The project would be served by the TUD wastewater system with no facility extensions or additional treatment capacity required.
Chapter 4 – Transportation	
Policy 4.C.5: Support the development of medium and high-density housing, commercial and offices along transit routes.	<i>Consistent</i> – The project site is located along a Tuolumne County Transit bus route, and a bus stop is on Cedar Road across from the project site.
Chapter 5 – Noise	
Policy 5.A.1: Evaluate the need of proponents of new development of noise-sensitive land uses proposed adjacent to existing transportation or other noise sources to incorporate noise reduction techniques so that noise levels at the new development are consistent with the exposure threshold standards shown in Tables 5.A and 5.B.	<i>Consistent</i> – The project is not adjacent to a significant transportation or other noise source.

TABLE 3-6
PROJECT CONSISTENCY WITH SELECTED COUNTY GENERAL PLAN
POLICIES

General Plan Policy	Consistency Determination
Chapter 7 – Managed Resources	
Policy 7.A.2: Minimize the potential for conflicts between timberland and non-timber related uses.	<i>Consistent</i> – There is no designated timberland in the project vicinity.
Policy 7.C.1: Protect lands classified as significant Mineral Resource Zone-2 (MRZ-2) by the State Department of Conservation Division of Mines and Geology, and meeting the criteria established in the General Plan for Mineral Preserve (-MPZ) overlay, from conflicts, such as incompatible development on surrounding land, which might prevent future mining activities.	<i>Consistent</i> – There are no such designated lands in the project vicinity.
Chapter 8 – Agriculture	
Policy 8.A.1: Avoid the conversion of agricultural lands from the Agricultural General Plan land use designation and compatible zonings.	<i>Consistent</i> – There are no agricultural lands in the project vicinity.
Chapter 9 – Public Safety	
Policy 9.G.2: Require new residential development to have adequate fire protection, which may include design and maintenance features that contribute to the protection of the County from the losses associated with wildland fire. Periodically update the County's fire protection standards to reflect new information and technology concerning fire prevention in wildland areas.	<i>Consistent</i> – The project would comply with applicable codes and ordinances related to fire protection.
Policy 9.G.4: Require that residential development provide for defensible space around structures.	<i>Consistent</i> – The project would comply with County Ordinance Code Section 15.20.060, which sets forth requirements for defensible space.
Chapter 14 – Water Supply	
Policy 14.C.4: Encourage the conservation of water resources in a systematic manner that is sensitive to the maintenance of water quality, natural capacities, ecological values, and consideration of the many water-related needs of the County.	<i>Consistent</i> – The project would avoid identified water resources in the area, including Sonora Creek, an intermittent drainage, and wetlands.
Chapter 15 – Air Quality	
Policy 15.A.2: Integrate land use planning, transportation planning, and air quality planning to make the most efficient use of public resources and to create a more livable environment.	<i>Consistent</i> – The project proposes residential development in a predominantly developed area, near medical office and government services. It is adjacent to an existing bus route with a bus stop across Cedar Road from the site. Vehicle trips from

TABLE 3-6
PROJECT CONSISTENCY WITH SELECTED COUNTY GENERAL PLAN
POLICIES

General Plan Policy	Consistency Determination
	the project are anticipated to have little impact on VMT and thus air quality.
Policy 15.B.1: Create a land use pattern that will encourage people to walk, bicycle or use public transit for a significant number of their daily trips.	<i>Consistent</i> – The project site is located along a Tuolumne County Transit bus route, and a bus stop is on Cedar Road across from the project site. Sidewalks are proposed to be installed.
Chapter 16 – Natural Resources	
Policy 16.A.2: Conserve the natural scenic quality and rural character along designated scenic routes in the County.	<i>Consistent</i> – The project site is not along any designated scenic routes and therefore would have no impact.
Policy 16.A.6: Encourage the protection of clusters of native trees and vegetation and outstanding individual native and non-native trees which help define the character of Tuolumne County.	<i>Consistent</i> – The project would have some impact on oak trees and riparian vegetation on the site. However, riparian impacts would be minimized, and trees would be removed in accordance with Chapter 9.24 of the Tuolumne County Ordinance Code.
Policy 16.B.5: Evaluate and mitigate impacts to biological resources in accordance with the requirements of State and Federal law.	<i>Consistent</i> – The project IS/MND has evaluated potential impacts on biological resources and recommended mitigation measures as appropriate, in accordance with State and Federal law.
Policy 16.C.5: Encourage the conservation of oak woodlands and the preservation of heritage trees.	<i>Consistent</i> – The project would have some impact on oak trees. However, removal of any oak trees would be done in accordance with Chapter 9.24 of the Tuolumne County Ordinance Code.
Chapter 17 – Natural Hazards	
Policy 17.B.2: Reduce the potential for damage to property within the 100-year floodplains as designated on the Federal Emergency Management Agency Flood Insurance Rate Maps and other areas prone to flooding due to rain or dam failure, through limitations on land use.	<i>Consistent</i> – The project site is not within a 100-year floodplain.
Policy 17.D.4: Ascertain that existing or proposed structures, particularly critical-use and high occupancy structures, can withstand the ground motion of the design earthquake without catastrophic failure or loss of critical services.	<i>Consistent</i> – The project would be constructed in accordance with the California Building Code adopted at time of project approval. The California Building Code includes seismic safety provisions.
Policy 17.D.5: Monitor development to see that construction in landslide or unstable slope areas is accomplished safely.	<i>Consistent</i> – The project would comply with recommendations in a soil engineering report, which would include an evaluation of potentially

TABLE 3-6
PROJECT CONSISTENCY WITH SELECTED COUNTY GENERAL PLAN
POLICIES

General Plan Policy	Consistency Determination
	unstable slopes, to be prepared in accordance with County requirements.
Policy 17.E.1: Reduce the exposure to risk from wildland fire to an acceptable level by only allowing development in high or very high fire hazard areas if it can be made safe by planning, construction, or other fire safety measures.	<i>Consistent</i> – The project site is within a Very High Fire Hazard area. However, the project would be constructed in accordance with Tuolumne County Ordinance Code Chapter 15.20, which sets fire safety standards for development. This chapter includes Section 15.20.060, which sets forth requirements for defensible space.
Chapter 18 – Climate Change	
Policy 18.A.5 Promote energy efficiency and alternative energy while reducing energy demand.	<i>Consistent</i> – The project would be constructed in accordance with the California Energy Code adopted at time of project approval. The California Energy Code includes various energy efficiency provisions.

The project would be consistent with the relevant policies and implementation programs of the East Sonora Community Plan. As noted in Section 3.1, Aesthetics, the project would be reviewed and approved based on its consistency with the East Sonora Design Guidelines. The project would provide landscaping and onsite recreational facilities that include a community center and a sport court. The project would avoid substantial development within the riparian area of Sonora Creek and would not construct any road crossing of the creek.

As described in Section 3.7 Geology and Soils and Section 3.10, Hydrology and Water Quality, the project would comply with the provisions of the County’s Water Quality Plan, the implementation of which is intended to avoid adverse impacts on surface water quality. This IS/MND discusses other potential project impacts that could affect County ordinances and County Ordinance Code provisions. The project would comply with these ordinances and provisions. Project impacts would be less than significant.

Environmental Justice

Environmental justice is not an issue that CEQA explicitly requires to be addressed; however, the State of California has recently emphasized the incorporation of environmental justice in land use and environmental planning. State law defines “environmental justice” as “the fair treatment of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” The State has enacted legislation that seeks to address the adverse environmental impacts of projects that disproportionately affect minority and/or

lower-income communities, particularly those already burdened with environmental problems.

The California Office of Environmental Health Hazard Assessment has developed the California Communities Environmental Health Screening Tool (CalEnviroScreen) to identify “environmental justice” or “disadvantaged” communities. CalEnviroScreen measures pollution and population characteristics using 20 indicators such as air and drinking water quality, waste sites, toxic emissions, asthma rates, and poverty. It applies a formula to each U.S. Census tract in California to generate a score that rates the level of cumulative impacts on each area. A census tract that scores in the top 25% is considered a disadvantaged community.

The project site is within Census Tract 6109004100, which has a CalEnviroScreen score in the 45-50 percentile, which does not make it a disadvantaged community as defined by State law (OEHHA 2021). The project would provide housing for lower-income households, and proposed housing would be located near existing medical offices and County services serving lower-income households. This juxtaposition would reduce the travel dependency of new residents to access these services; existing transit service is also available in the area. Therefore, the project would not have any known adverse impacts related to environmental justice, and it would likely have beneficial impacts.

3.12 MINERAL RESOURCES

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
			✓
			✓

NARRATIVE DISCUSSION

Environmental Setting

Tuolumne County has extensive mining history and resources. Current operating mines in Tuolumne County produce limestone, dolomite and various forms of crushed rock, gravel, and sand products. The California Department of Conservation, Division of Oil, Gas, and Geothermal Resources maintains records of the location and details of construction and abandonment of all oil and gas wells. Oil wells were not identified within Tuolumne County (County of Tuolumne 2018a).

The California Division of Mines and Geology, now part of the California Geological Survey, has classified portions of the state into Mineral Resource Zones (MRZs). The

mineral resource development potential of lands in the counties are classified by the State Geologist in accordance with the California Mineral Land Classification System. The classifications include:

MRZ-1 Areas of No Mineral Resource Significance

MRZ-2 Areas of Identified Mineral Resource Significance

MRZ-3 Areas of Undetermined Mineral Resource Significance

MRZ-4 Areas of Unknown Mineral Resource Significance

In accordance with the State MRZs, the County has applied the MPZ overlay zone designation to land that has been classified as Mineral Resource Zone MRZ-2 by the State Mining and Geology Board and that meets criteria for relationship to surrounding land uses, access, and other issues. The MPZ overlay designation is found along the Mother Lode gold ore zone, the carbonate belt from Columbia to Algerine, and the Table Mountain basalt as an aggregate source. None of these designations apply to the site.

Environmental Impacts and Mitigation Measures

a, b) Availability of Mineral Resources.

There are no identified mineral resources areas on or near the project site, nor does the project site have an MPZ overlay to its zoning designation. The nearest MPZ designation is approximately 5.5 miles southwest of the project site. There are no active oil wells in the project vicinity. Therefore, the project would have no effect on the availability of or access to locally designated or known mineral resources. The project would have no impact on mineral resources.

3.13 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?				✓

NARRATIVE DISCUSSION

Environmental Setting

Noise Background

Noise is often described as unwanted sound. To provide a manageable way to measure sound, the decibel (dB) scale was devised. 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 the A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives noise.

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}), which corresponds to a steady-state, A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The L_{eq} shows very good correlation with community response to noise, and it is the basis for other noise descriptors such as the Day-Night Average Level (L_{dn}) and the Community Noise Equivalent Level (CNEL). The L_{dn} is based upon the average hourly L_{eq} over a 24-hour day, with a 10-dB weighting applied to noise during the hours from 10:00 p.m. to 7:00 a.m. to account for greater sensitivity during that period. The CNEL is the same as the L_{dn} , with an additional 5-dB weighting applied to noise during the hours from 7:00 p.m. to 10:00 p.m.

The ambient noise environment in Tuolumne County is largely affected by traffic on highways and County roadways, commercial and industrial uses, agricultural uses, railroad operations, and aircraft. The most prominent sources of noise are motor vehicles (County of Tuolumne 2018a). At the project site, ambient noise is predominantly generated by motor vehicle traffic along Greenley Road, Cabezut Road, and Cedar Road. No other significant noise sources are in the vicinity. Measurements of traffic noise levels, or overall ambient noise levels, at the project site or vicinity are not available.

The Noise Element of the Tuolumne County General Plan establishes noise standards applicable to projects. According to the Noise Element, residences, hospitals, and nursing homes shall not be exposed to noise from transportation sources at levels that exceed 60 dB L_{dn} /CNEL in outdoor activity areas, and interior noise levels within residences shall not exceed 45 dB L_{dn} /CNEL. In addition, noise from stationary noise sources shall not exceed an hourly L_{eq} of 50 dB during the daytime (7:00 a.m. to 10:00 p.m.) and 45 dB during the nighttime (10:00 p.m. to 7:00 a.m.). The maximum noise level from stationary noise sources to which noise-sensitive land uses may be exposed shall not exceed 70 dB during the daytime and 65 dB during the nighttime.

The CEQA Guidelines define a significant impact of a project if it "increases substantially the ambient noise levels for adjoining areas." The Noise Element sets thresholds for determining the significance of changes in noise levels. For ambient noise levels less than

60 dB, an increase in noise levels of 5 dB or more is considered significant. For ambient noise from 60 to 65 dB, an increase in noise levels of 3 dB or more is considered significant. For ambient noise levels above 65 dB, an increase in noise levels of 1.5 dB or more is considered significant.

Environmental Impacts and Mitigation Measures

a) Exposure to Noise Exceeding Local Standards.

In general, the project is not expected to generate noise at a level that would disturb most nearby land uses. However, the existing hospice is adjacent to the project site and is considered a noise-sensitive land use. An analysis of potential noise impacts is provided below.

Construction of the proposed project would involve temporary increases in ambient noise levels, due to the use of heavy construction equipment and vehicle traffic to and from the construction site. Activities involving heavy equipment and trucks in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet, as indicated in Table 3-7. While louder equipment such as concrete saws and jackhammers are unlikely to be used for the project, other equipment would be used at a fairly close distance to the hospice. Construction noise impacts are not expected for other surrounding land uses.

TABLE 3-7
CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: FHWA 2006.

Although project construction noise would cease once construction work is completed, this is considered a potentially significant short-term impact, as the project site is adjacent to the noise-sensitive hospice facility. Temporary noise impacts resulting from project

construction shall be minimized by implementation of mitigation measures, specified below, that would restrict construction days and hours and would require the use of mufflers on construction equipment. The mitigation measures would reduce construction noise to a level that would be less than significant.

The project would result in a permanent increase in ambient noise levels over existing conditions, as the site is currently vacant. Noise would be generated mainly by traffic to and from the project, with activities at the community center and sport court generating a more limited amount of intermittent noise.

It is expected that most of the project traffic would utilize Greenley Road and, to a lesser degree, Cedar Road and Cabezut Road (see Section 3.17, Transportation). The land uses along these roads are predominantly other high-density residential development and offices. While offices are not typically noise-sensitive land uses, residential development is typically noise-sensitive. Data on noise levels along Greenley Road are not available. However, Existing traffic along the road is relatively light; traffic generated by the project would be relatively light compared as anticipated occupants are less likely to have their own vehicles. Therefore, the project is not expected to increase traffic noise levels along Greenley Road such that nearby residential areas would experience noise levels considered significant by the thresholds set forth above. Section 3.17, Transportation, discusses traffic issues associated with the project in detail.

Project building entryways would be placed facing away from the hospice, so noise from entries and exits would be shielded by the building, except for Building 1. However, Building 1 is approximately 125 feet away from the hospice, so entry/exit noise would be reduced by the time it would reach the hospice. Typical activities at the community center would be indoors, so little outdoor noise would be generated. Outdoor noise from the sport court would be occasional and would not typically occur during nighttime hours. Project operations would not generate noise at a level that would exceed standards applicable to stationary noise sources. Noise impacts from project operations would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

NOISE-1: Prior to approval of a grading permit, and subject to the review and approval of the Engineering Division of the Tuolumne County Department of Public Works, construction plans shall require a notation limiting construction activities to the following:

- Construction activities shall be restricted to the hours between 8:00 a.m. and 6:00 p.m. Monday through Saturday. Construction activities shall be prohibited on Sundays and County holidays.
- All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with manufacturers recommended mufflers and be maintained in good working condition.

- All mobile or fixed noise-producing equipment used in 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 and must be located as far as is feasible from sensitive receptors.
- Sound attenuation devices shall be required on construction vehicles and equipment.

Significance After Mitigation: Less than significant

b) Exposure to Groundborne Vibration or Noise.

Groundborne vibration is not a common environmental problem. It is typically associated with transportation facilities, although it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving, and operating heavy earth-moving equipment. Caltrans has developed standards that show the vibration levels normally perceptible to humans, presented in terms of peak particle velocity in inches per second. A peak particle velocity above 0.25 inches per second is considered “distinctly perceptible” to humans. Peak particle velocity standards have also been established for potential architectural damage. For older buildings, the standard is 0.5 inches per second peak particle velocity – above the “distinctly perceptible” threshold (Caltrans 2013). For this analysis, the threshold of 0.25 inches per second peak particle velocity is used to determine impact significance.

The noise study evaluated the potential impacts from primary vibration-generating activities associated with the project. The nearest sensitive receptor – the hospice – is adjacent to the project site. Construction activities at their closest to the hospice would be approximately 25 feet. Using the methodology prescribed by Caltrans, the ground vibration produced by a vibratory roller – the most likely equipment to be used that produces the greatest peak particle velocity – would produce a peak particle velocity of approximately 0.21 in/sec at the hospice. This would be below the Caltrans standard for being “distinctly perceptible” to human, and substantially below the standard for potential architectural damage. Based on this, project impacts related to groundborne vibrations would be less than significant.

c) Public Airport and Private Airstrip Noise.

As discussed in Section 3.9, Hazards and Hazardous Materials, there are no airports in the vicinity of the project site – the nearest is Columbia Airport approximately 3.75 miles to the northwest. There are no private airstrips in the project vicinity. As such, the project would not be exposed to noise from airport or airstrip operations. The project would have no impact associated with this issue.

3.14 POPULATION AND HOUSING

Would the project:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

			^
	^		
Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

NARRATIVE DISCUSSION

Environmental Setting

As of January 1, 2021, the population of Tuolumne County was estimated at 53,465, a decrease of approximately 3.4% from its 2010 population of 55,365 as recorded by the U.S. Census Bureau. Almost all County residents live in unincorporated communities or areas – Sonora, with a 2021 estimated population of 4,690, is the only incorporated city. As of January 1, 2021, there were 48,775 residents in unincorporated Tuolumne County (California Department of Finance 2021). The U.S. Census Bureau estimated that 2,278 people lived in the East Sonora Census Designated Place as of 2019 (U.S. Census Bureau 2019).

As of January 1, 2021, unincorporated Tuolumne County had an estimated 29,261 housing units - an increase from 28,781 in 2010. Of the total 2020 housing units, 23,843 were single-family detached units (typical houses), approximately 81.5% of the total. Approximately 2.9% of the total housing units were multifamily units of five or more per building. The total number of such units in 2020 was 840, the same number as in 2010. The average number of persons per household in unincorporated Tuolumne County was 2.28 (California Department of Finance 2021). The U.S. Census Bureau estimated that there were 1,193 housing units in the East Sonora Census Designated Place as of 2019 (U.S. Census Bureau 2019). There are no existing residential units or population on the project site.

The County adopted an update to the Housing Element of its General Plan in 2019. Trends noted in the Housing Element that are relevant to the project are discussed in Chapter 1.0, Introduction.

Environmental Impacts and Mitigation Measures

a) Unplanned Population Growth.

The project would involve multifamily residential development of the 5.93-acre site, creating 72 new multi-family units and a potential population increase of approximately 163 people, based on the current average number of persons per household in unincorporated Tuolumne County. The project is currently not consistent with the County General Plan, which designates the project site for commercial development. However, the project would help satisfy the projected need for lower-income housing described in the Housing Element (County of Tuolumne 2019). The lower-income housing need is based largely on the population growth in Tuolumne County, which is projected to increase by only 0.6 percent throughout the planning horizon of the General Plan (County of Tuolumne 2018a). Also, it is anticipated that most, if not all, of this housing would be taken by existing County residents; no residents from outside the County are anticipated to take this housing. As such, project impacts on unplanned population growth are considered less than significant.

b) Displacement of Housing or People.

The project site is currently vacant and has no residential structures. Therefore, the project would not displace housing or people. The project would have no impact on this issue. It should be noted that the project proposes to add 72 multifamily residential units for lower-income households.

3.15 PUBLIC SERVICES

Would the project:

a) Result in substantial adverse physical impacts associated with the provision of, or the 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:

i) Fire protection?

ii) Police protection?

iii) Schools?

iv) Parks?

v) Other public facilities?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
		✓	
		✓	
		✓	
		✓	
		✓	

NARRATIVE DISCUSSION

Environmental Setting

Fire Protection

Fire protection services are provided to unincorporated Tuolumne County by the Tuolumne County Fire Department (TCFD), Cal Fire, seven fire protection districts, and the United States Forest Service in the Stanislaus National Forest (County of Tuolumne 2018a). For the project vicinity, fire protection services are provided by TCFD. TCFD, through a cooperative fire protection agreement with Cal Fire, provides for the preservation of life and property through emergency medical response, rescue, extrication, fire control, and fire and life safety inspections.

The nearest TCFD station to the project site is Station 51 (Mono Village) at 19500 Hillsdale Drive in East Sonora, approximately 2.35 miles east of the project site. Station 51 is currently staffed by one Cal Fire captain and five Cal Fire engineers, supplemented with resident and volunteer firefighters. Firefighting apparatus at the station consists of two engines, one water tender, and one pickup truck. For urban areas, the TCFD response time is an average of 9 minutes; suburban areas have a response time of 10 minutes (County of Tuolumne 2018a). TCFD has additional assistance available through the County of Tuolumne Fire Agencies Master Mutual Aid Agreement, a mutual cooperation agreement with other fire agencies to increase fire protection resources and other emergency operations. These other fire agencies include the City of Sonora Fire Department, the station for which is approximately 0.8 miles from the project site (Tuolumne County LAFCo 2019).

The County charges impact fees on residential development for fire protection. Fees are based on location of the development, either within a special fire district or in the general County service area. Under Tuolumne County Ordinance Code Section 3.40.040, impact fees may be waived for residential developments for extremely low-, very low-, low-, or median-income households.

Police Protection

Police protection services are provided by the Tuolumne County Sheriff's Department. The Sheriff's Department operates out of its station on 28 Lower Sunset Drive in East Sonora, approximately 1.5 miles southeast of the project site. There are approximately 135 authorized positions in the Department, including 63 patrol deputies, 38 adult detention deputies, and 13 dispatchers who staff the Emergency Dispatch Center. The average response time by the Sheriff's Department is 3 minutes and 18 seconds (County of Tuolumne 2018a).

Schools

Elementary and middle school services (kindergarten to 8th grade) in the project vicinity are provided by the Sonora Elementary School District (SESD). The SESD has only one school – Sonora Elementary School. As noted in Section 3.9, Hazards and Hazardous Materials, Sonora Elementary School is approximately one-half mile south of the project

site. As of the 2019-20 school year, total enrollment at Sonora Elementary School was 722 students (EdData 2021).

High school educational services for the project vicinity are provided by the Sonora Union High School District (SUHSD). The SUHSD enrolls students from several elementary school districts, including SEDS. As of the 2019-20 school year, total enrollment in the SUHSD was 1,071 students. As noted in Section 3.9, Hazards and Hazardous Materials, Sonora High School is approximately one mile west of the project site. Total enrollment at Sonora High School in the 2019-20 school year was 961 (EdData 2021).

On January 1, 1987, AB 2926 enacted Government Code sections 65995 and 53080, which authorized school districts to levy a developer fee on new construction, for the purpose of paying their required share of school building construction. In partnership with the County of Tuolumne, the Tuolumne County Superintendent of Schools collects developer fees for school districts that levy fees to finance school building construction. Fees charged for multifamily residential development in the SEDS would be \$2.31 per square foot for the SEDS and \$1.48 per square foot for the SUHSD.

Other Public Services

The Tuolumne County Recreation Department manages parks and recreation programs in the County. The nearest County park is on 480 Greenley Road, approximately one-quarter mile southwest of the project site. Section 3.16, Recreation, describes County parks in more detail. Other public services include the Tuolumne County Library, also located on 480 Greenley Road.

Environmental Impacts and Mitigation Measures

a-i) Fire Protection.

The project would generate a demand for fire protection services. The General Plan EIR analyzed the need for new facilities under General Plan development and concluded that existing facilities can accommodate any additional firefighters needed based on the projected development under the General Plan Update and would not require a new or expanded station or facility to be built. Also, mutual aid provided by the City of Sonora can supplement County fire protection services when needed (County of Tuolumne 2018a). The Tuolumne County Fire Department has indicated that the project can be served without the need for new or expanded facilities (Steve Gregor pers. comm.).

Buildings constructed as part of the project would be required to comply with Tuolumne County Ordinance Code Chapter 15.20, which adopts the 2019 California Fire Code with County amendments. The Fire Code contains provisions designed to improve fire safety in structures, including installation of sprinkler systems, alarm systems, and portable fire extinguishers, along with requirements for hydrants and fire flows. County Ordinance Code Chapter 15.20 also sets forth requirements on setbacks, defensible space, and fuel modification. The project also would be subject to the County's adopted Building and Electrical Codes with their applicable provisions related to fire safety, including the installation of smoke detectors and sprinkler systems. Compliance with County standards and the applicable codes would reduce project impacts on fire protection services to a level

that would be less than significant. It should be noted that, as discussed in Section 3.9, Hazards and Hazardous Materials, fire hazards on the project site would be reduced with the removal of vegetation.

a-ii) Police Protection.

The project would also generate a demand for police protection services. The General Plan EIR did not identify any significant impacts of future development under the General Plan on police protection services, due to the anticipated small increase in population (County of Tuolumne 2018a). As discussed in Section 3.14, Population and Housing, the project is not expected to affect the County's population. Project demands can be served by the County's Sheriff's Department without new or expanded. Project impacts related to police protection services would be less than significant.

a-iii) Schools.

The proposed project is likely to house students who would attend both SESD and SUHSD schools. A rough approximation of the number of students that the project would generate, using a percentage of school-age children to the general population of 13 percent (County of Tuolumne 2018a), would be 21 students from kindergarten to 12th grade.

There has been a substantial decrease in enrollment throughout the County over the past decade. District and school capacity is not closely monitored unless indicators of overcrowding are present. Therefore, due to declining enrollment, lack of overcrowding indicators and lack of information related to current student capacity, the project would not result in any known effect on school capacity. There is currently no known issue with student capacity (County of Tuolumne 2018a).

It is expected that the project would be required to pay developer fees to both SESD and SUHSD. Under State law, payment of developer fees is considered adequate mitigation of potential environmental impacts. Because of this, project impacts on schools are considered less than significant.

a-iv, v) Parks and Other Public Facilities.

The project could result in an increase in residents who may visit parks and libraries within the County. As discussed in Section 3.14, Population and Housing, the population increase resulting from the project is not expected to be significant. In addition, the project proposes a community center with some recreational facilities, which would satisfy some of the anticipated demand by residents. Therefore, additional demands on parks and other public facilities such as libraries are expected to be incremental, and no new or expanded public facilities would be required. Project impacts would be less than significant.

3.16 RECREATION

Would the project:

Less Than Significant	Potentially Significant with Incorporated Mitigation	Less Than Significant Impact	No Impact

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?
- b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

NARRATIVE DISCUSSION

Environmental Setting

As noted in Section 3.15, Public Services, the County Recreation Department manages parks and recreational facilities in the County. These include playgrounds, sports fields, and a dog park. The nearest County recreational facilities to the project site are the Heaven for Kids Playground and the Sonora Skate Park, both at 480 Greenley Road approximately one-quarter mile southwest of the project site. The nearby City of Sonora has six parks, along with the Dragon Gulch recreational trail.

Outside East Sonora, Columbia State Historic Park is in the town of Columbia approximately four miles north of the project site. Campgrounds, boat launch ramps, and a marina are available at New Melones Lake, a reservoir managed by the U.S. Bureau of Reclamation and located approximately seven miles west of the project site. Yosemite National Park, which offers a variety of recreational lands and facilities, is approximately 46 miles to the east.

Environmental Impacts and Mitigation Measures

a, b) Recreational Facilities.

As noted in Section 3.14, Population and Housing, the project is expected to generate an occupancy of approximately 163 residents. The residents of the proposed project would generate a demand for recreational facilities and services, which would be met in part by the proposed community center and outdoor court facilities. Existing public parks and recreational facilities are expected to accommodate the additional residents without causing a substantial physical deterioration of these facilities, particularly since overall population growth in the County is expected to be minimal. Also, as noted in Section 3.15, Public Services, the project proposes a community center with recreational facilities that would be used by residents. Project impacts on recreational facilities are considered less than significant.

3.17 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 with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			✓	
c) Substantially increase hazards 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?				✓

NARRATIVE DISCUSSION

Information for this section primarily comes from a transportation analysis conducted for the project by Wood Rodgers. Appendix D contains the analysis, which describes existing traffic conditions in the vicinity of the project site and analyzes conditions with implementation of the project. Impacts of project vehicle traffic were estimated using trip generation rates from the Institute of Transportation Engineers' *Trip Generation Manual* (10th edition) and anticipated routes used by project traffic. A safety evaluation, including a sight distance analysis, was conducted for the intersections and roadway segments near the project site, and bicycle and pedestrian circulation was analyzed.

Environmental Setting

Existing Transportation Facilities

The project site has frontage on three roadways:

- Greenley Road is a two-lane, north-south County road that forms part of the western boundary of the project site. The County classifies Greenley Road as a “major collector” – a road that functions as a corridor for through traffic within local areas providing service to towns and other major traffic generators within the County. A traffic signal is installed at the intersection of Greenley Road and Cabezut Road.
- Cabezut Road is a two-lane, east-west County road that marks the southern boundary of the project site. It intersects Greenley Road at the southwestern corner of the site. Cabezut Road from Greenley Road to Cabezut Court is classified by the County as a “minor collector” – a road that often serves to funnel traffic from groups of local roads onto the major collectors and arterial routes.

- Cedar Road is a private road along much of the eastern boundary of the project site. It intersects Cabezut Road at the southeastern corner of the site. Cedar Road primarily serves the County buildings and the hospice in the area. It connects to Phoebe Lane, which serves the Quail Hollow One apartment complex northeast of the site. A stop sign controls traffic going from Cedar Road onto Cabezut Road.

In addition, Phoebe Lane extends to the northern portion of the project site, intersecting with Cedar Road as noted. A two-lane road, Phoebe Lane serves the Quail Hollow One apartment complex and the Tuolumne County Public Health building to the northeast of the site.

Public transit service in the County, including the City of Sonora, is provided by Tuolumne County Transit. Tuolumne County Transit service currently provides bus service along five fixed routes serving communities in western and central Tuolumne County. General public dial-a-ride service is available to the Phoenix Lake-Crystal Falls area. Route 1 provides bus service in Sonora and East Sonora, including the project vicinity. A bus stop has been designated along Cedar Road at the County buildings across from the project site.

A sidewalk has been installed along the project site frontage on Cabezut Road; no sidewalks have been installed along the project site frontages of Cedar Road and Greenley Road. A crosswalk crosses Cabezut Road at its intersection with Cedar Road, and crosswalks have been installed on all four legs of the Greenley Road/Cabezut Road intersection. There are no designated bicycle routes in the vicinity.

Transportation Plans and Guidelines

State CEQA Guidelines Section 15064.3

The State of California has recently added Section 15064.3 to the CEQA Guidelines, which is meant to incorporate SB 743 into CEQA analysis. SB 743 was enacted in 2013 with the intent to balance congestion management needs and the mitigation of the environmental impacts of traffic with statewide GHG emission reduction goals, mainly by developing an alternative mechanism for evaluating transportation impacts.

Section 15064.3 states that VMT is the preferred method for evaluating transportation impacts, rather than the commonly used LOS. The VMT metric measures the total miles traveled by vehicles as a result of a given project. VMT accounts for the total environmental impact of transportation associated with a project, including use of non-vehicle travel modes. While a quantitative analysis of VMT is preferred, a qualitative analysis may be used if existing models or methods are not available to estimate VMT for the project being considered. All local jurisdictions are required under SB 743 to establish VMT standards by July 1, 2020. The Tuolumne County and City of Sonora SB 743 VMT Thresholds memorandum provides screening criteria used to determine whether certain types of projects can be assumed to have VMT impacts that are less than significant.

The Governor's Office of Planning and Research has issued a Technical Advisory on evaluating transportation impacts using VMT. The Technical Advisory recommends several approaches in developing screening thresholds to determine significance of the transportation impacts of projects (OPR 2018).

Regional Transportation Plan

The current Regional Transportation Plan for Tuolumne County was adopted in 2017. The Regional Transportation Plan is a vision, policy, action, and financial plan that is focused on the future transportation needs of Tuolumne County for the next 25 years. The plan focuses on transportation and the movement of people and goods for purposes such as working, shopping, school, or recreation by means of automobiles, trucks, buses, trains, airplanes, bicycling, or walking (Tuolumne County Transportation Council 2017). The Regional Transportation Plan has not identified any proposed transportation improvement projects in the project vicinity.

Tuolumne County General Plan

The Transportation Element of the Tuolumne County General Plan sets forth policies and implementation programs designed to achieve the goals of providing for the long-range planning and development of the County's transportation system for the safe and efficient movement of people and goods and encouraging the use of alternative means of transportation by providing safe bicycle and pedestrian facilities within urban development boundary areas and between identified communities, among other goals. The County General Plan sets minimum Level of Service (LOS) standards for County roads. LOS is a qualitative system of measuring traffic flow on a scale from A to F, with A representing the best traffic flow and F the worst. For major collectors and minor collectors, LOS D is considered by the County as the minimally acceptable LOS. LOS was used as a standard by which transportation environmental impacts were evaluated; however, State law has declared that VMT analysis is preferred (see above).

Environmental Impacts and Mitigation Measures

a) Conflict with Transportation Plans, Ordinances and Policies.

Development of the project would generate new vehicle trips and potentially affect traffic operations at nearby intersections. The transportation analysis (Appendix D) estimates that the project would generate 391 vehicle trips daily, with 25 morning peak hour and 32 evening peak hour trips under typical weekday traffic demand conditions.

The analysis did not determine the LOS impacts of the project on local roads and intersections, as LOS is no longer used to determine the significance of project impacts on transportation. As noted above, LOS D is the minimally acceptable LOS for major and minor roads in the County. For two-lane collectors in urban areas, the maximum volume acceptable for LOS D ranges from 12,800 to 15,800, depending on existence of left-turn lanes. As of 2015, traffic volume on the segment of Greenley Road adjacent to the project site is 5,868 (LOS B) and on the segment south of the project site is 11,332 (LOS C – Greenley Road has left-turn pockets). On the segment of Cabezut Road adjacent to the project site, traffic volume in 2015 was 5,775 (LOS B) (County of Tuolumne 2018a).

Therefore, given the amount of daily vehicle traffic the project would generate, it is unlikely that the project would significantly affect traffic conditions on the adjacent County roads relative to LOS. Also, as no major vehicle transportation projects are planned in the

vicinity, the project would not affect the planned actions of the Regional Transportation Plan.

Currently, the project site has direct access to Route 1 of the Tuolumne County Transit system at an existing stop on Cedar Road. The transportation analysis indicated that, based on ridership data provided by the County, Route 1 typically operates at less than 30% capacity, on average, which allows for enough capacity to accommodate new transit riders from the project. Thus, the project would not adversely affect transit capacity, and potential new passengers would be consistent with the County General Plan goal of encouraging greater transit use. Project impacts on transportation plans and policies would be less than significant.

b) Conflict with CEQA Guidelines Section 15064.3(b).

As discussed above, VMT is now the preferred method for evaluating transportation impacts, rather than LOS. As noted, the Tuolumne County and City of Sonoma SB 743 VMT Thresholds memorandum provides screening criteria used to determine whether certain types of projects can be assumed to have VMT impacts that are less than significant. These are based largely on screening criteria identified by the OPR Technical Advisory. One of these criteria is if the project is an affordable housing project, which is defined as a project consisting of deed-restricted affordable housing. The OPR Technical Advisory states that a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT. Evidence supports a presumption of less-than-significant impact for a 100% affordable residential development in infill locations (OPR 2018).

The proposed project is an affordable housing development, with 100% of its units affordable to very-low-income households. Based on the adopted County thresholds, project impacts on VMT would be less than significant. This conclusion is supported by the project's proximity to retail services and schools and the availability of existing transit services. Therefore, the project would not conflict with CEQA Guidelines Section 15064.3(b), and impacts would be less than significant.

c) Transportation Hazards.

Traffic generated by the project would be mostly passenger vehicles, similar in composition to current traffic in the vicinity. The transportation analysis conducted a safety evaluation of roadway facilities in the project vicinity using collision data obtained from the Statewide Integrated Traffic Records System database. Four collisions were reported within or near the Greenley Road/Cabezut Road intersection between 2017 and 2021. There were no collisions reported on Cedar Road or Phoebe Lane. The identified collisions do not appear to indicate a pattern of incidents connected to a potential safety issue or deficiency on the associated roadway facilities.

As part of the transportation analysis, site distance adequacy at the Cedar Road/Cabezut Road, Greenley Road/proposed main driveway, and Phoebe Lane/proposed secondary driveway intersections were assessed, using standards in the Tuolumne County Community Resources Agency Roads Division Encroachment Permit Information Packet

and Section 405.1 of the Caltrans Highway Design Manual dated July 1, 2020. The assessment concluded that adequate sight distance was available for all turns at all intersections, except for left turns from Cedar Lane to Cabezut Road. Inadequate sight distance could lead to vehicle accidents. The transportation analysis recommended that vegetation within the northwest quadrant of the Cedar Road/Cabezut Road intersection be trimmed or removed to provide vehicle drivers with a longer line of sight along eastbound Cabezut Road. Implementation of this recommendation, which is incorporated within a mitigation measure below, would reduce potential traffic hazards at this intersection to a level that would be less than significant.

The project currently proposes to construct pedestrian improvements on Greenley Road from the northern property line to approximately 150 feet north of the Greenley Road/Cabezut Road intersection, leaving a gap between the main driveway and the intersection. The Wood Rodgers memorandum recommends the extension of pedestrian improvements along the entire Greenley Road frontage. As discussed in Chapter 2.0, Project Description, the project would work with the County on satisfying County requirements for street frontage improvements.

As noted, a bus stop is located at the County buildings on Cedar Road, and adequate capacity exists for additional passengers. To improve the safety of project occupants who may use this stop, and who also may visit the County offices, the transportation analysis recommended the installation of a crosswalk in the area. This recommendation, incorporated as a mitigation measure below, would further reduce potential unsafe conditions, thereby reducing impacts to a level that would be less than significant.

Project site circulation was evaluated by performing truck turning analysis on the proposed internal project roadway system, using a 30-foot single-unit truck design vehicle. Based on the current site plan, a truck would enter the site at the main driveway on Greenley Road, then could use the provided truck turnaround area to exit onto Greenley Road or use the secondary driveway to exit onto Cedar Road. Analysis showed that the design vehicle would generally be able to maneuver within the project site without conflicting with vehicles traveling in the opposite direction. However, the center island of the circular roadway at the main driveway entrance would need to be mountable (i.e., low enough for trucks to drive over safely) so that trucks can maneuver through the main gate, as the roadway radius is too small for the design vehicle to avoid driving over the island. Mitigation provided below would require the proposed traffic circle to be mountable by trucks, thereby avoiding potential safety issues associated with truck traffic and reducing potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

TRANS-1: The project applicant shall remove or trim vegetation within the northwest quadrant of the Cedar Road/Cabezut Road intersection to give vehicles from Cedar Road a longer line of sight along eastbound Cabezut Road.

Information for this section is provided by a Cultural Resources Technical Memorandum prepared for the project by Solano Archaeological Services, except where otherwise cited (see Section 3.5, Cultural Resources). Appendix C contains the Technical Memorandum.

NARRATIVE DISCUSSION

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:	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), or		
	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.	✓	✓

3.18 TRIBAL CULTURAL RESOURCES

d) Emergency Access.

As described in Chapter 2.0, Project Description, the project would have one main driveway off Greenley Road and a secondary driveway off Phoebe Lane. These driveways would provide adequate access for emergency vehicles to the project site. The project would have no impact related to emergency access.

- TRANS-2: The project applicant shall install a crosswalk across Cedar Road from the project site to the Tuolumne County Transit bus stop near the Tuolumne County Social Services building.

TRANS-3: The traffic circle proposed for installation at the proposed main driveway off Greenley Road shall be mountable such that a design 30-foot single-unit truck can drive over the circle if necessary when maneuvering through the main gate.
- Significance After Mitigation: Less than significant

Environmental Setting

Ethnographic Setting

As noted in Section 3.5, Cultural Resources, the project site and vicinity were traditionally occupied by the Central Sierra Miwok. The Central Sierra Miwok's primary residences were conical structures built with bark slabs arranged to form a cone with no internal supports or framework. Cooking hearths were typically located in the center of the houses, with earthen ovens adjacent. Two types of assembly structures were used for various occasions; a semi-subterranean earth lodge was used as the focal point for social gatherings and rituals, and a smaller, circular brush structure with a pine needle roof and was used for mourning ceremonies held in the summer. Permanent village sites were typically located near sources of water, such as springs and small creeks (e.g., Sonora Creek), and were situated below the snowline at about 2,000 to 3,000 ft. above mean sea level.

Subsistence focused on hunting, fishing, and the gathering of wild plants, seeds, and nuts. During the summer and fall, groups would travel to higher elevations to obtain seasonal plant and animal foods. Granite and basalt outcroppings in the region facilitated the processing of these plant resources. Mortars were formed in the bedrock where the seeds, nuts, and small mammals were processed by using a cobble pestle.

The Central Sierra Miwok trade system included various resources that were exchanged with neighboring tribes and was generally characterized by the movement of goods from east to west. For example, obsidian and salt that originated in the Great Basin region were traded west to the Sierra Miwok who then exchanged them with the Plains Miwok in the Central Valley.

At the time of initial European contact, the Central Sierra Miwok inhabited lands that included the foothill and mountain portions of the Stanislaus and Tuolumne drainages. It was estimated that the pre-contact population was approximately 4,400 individuals, with a dramatic decline in population because of the influx of miners following the Gold Rush in 1849.

Regulatory Framework

SB 18

In 2004, the California Legislature enacted SB 18, which requires local governments to consult with tribes on potential cultural resource impacts when a general plan or a specific plan is adopted or amended, or when an open space area is designated. This project proposes a General Plan Amendment, so SB 18 potentially applies. However, SB 18 addresses land use planning, not CEQA environmental review.

AB 52

In 2014, the California Legislature enacted AB 52, which focuses on CEQA consultation with Native American tribes on projects potentially affecting the tribes. The intent of this consultation is to avoid or mitigate potential impacts on "tribal cultural resources," which

are defined as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe.”

Under AB 52, when a tribe requests consultation with a CEQA lead agency on projects within its traditionally and culturally affiliated geographical area, the lead agency must provide the tribe with notice of a proposed project within 14 days of a project application being deemed complete or when the lead agency decides to undertake the project, if it is the agency’s own project. The tribe has up to 30 days to respond to the notice and request consultation; if consultation is requested, then the local agency has up to 30 days to initiate consultation.

Matters which may be subjects of AB 52 consultation include the type of CEQA environmental review necessary, the significance of tribal cultural resources, and project alternatives or appropriate measures for preservation or mitigation of the tribal cultural resource that the tribe may recommend to the lead agency. The consultation process ends when either (1) the resource in question is not considered significant, (2) the parties agree to mitigate or avoid a significant effect on a tribal cultural resource, or (3) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. Regardless of the outcome, a lead agency is still obligated under CEQA to mitigate for any significant environmental effects, as explicitly noted in AB 52.

Environmental Impacts and Mitigation Measures

a, b) Tribal Cultural Resources.

As discussed in Section 3.5, Cultural Resources, a records search and field survey revealed no known archaeological resources on the project site, including resources of potential concern to tribes. A search of the Sacred Lands File maintained by the Native American Heritage Commission indicated the presence of no sacred lands on or near the project site.

The Native American Heritage Commission provided a list of six contacts representing four tribes: Tule River Indian Tribe, Chicken Ranch Rancheria of Me-Wuk Indians, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, and Wuksache Indian Tribe/Eshom Valley Band. In accordance with AB 52 and SB 18, letters were sent to the listed contacts on July 7, 2021. To date, none of the tribes have responded.

However, three prehistoric sites have been recorded in the vicinity. Because of this and its proximity to Sonora Creek, the project site is considered within an area of cultural and archaeological sensitivity. It is possible that unknown resources, including tribal cultural resources, may be encountered during project construction. Mitigation measures that address inadvertent discoveries of cultural or tribal cultural resources during project construction have been identified in Section 3.5, Cultural Resources. Mitigation Measure CULT-1 would require that construction be halted if there are inadvertent discoveries of resources and that these resources be evaluated by qualified professionals. Mitigation Measure CULT-2 prescribes actions to be taken if human remains are discovered.

Should tribal input be received during the CEQA process, or AB 52 consultation if requested, the County proposes to provide tribal involvement, if requested, in the project

and in the activities prescribed by Mitigation Measures CULT-1 and CULT-2. Implementation of these measures is expected to reduce potential impacts on tribal cultural resources to a level that is less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Implementation of Mitigation Measures CULT-1 and CULT-2.

Significance After Mitigation: Less than significant

3.19 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 that would 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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

Water service in the project vicinity is provided by TUD. TUD currently obtains approximately 97 percent of its water supply from surface water from the South Fork of the Stanislaus River under an agreement with PG&E. Groundwater wells operated by TUD account for the remaining 3 percent. The site is within the boundaries of TUD's Sonora water system, which had 5,019 connections as of June 2018. In 2020, treated water (i.e., water for urban use) demand by TUD customers was 3,804 acre-feet, while raw water (i.e.,

water mainly for agriculture) demand was 3,086 acre-feet. Total TUD water supplies in 2020 were 23,157 acre-feet per year (TUD 2021).

Wastewater service is also provided by TUD. TUD's collection system consists of approximately nine miles of interceptor and collector pipelines from 6 to 24 inches in diameter. The Regional Wastewater Treatment Plant (RWWTP), south of Sonora along SR 108, has a design capacity of 2.6 million gallons per day. The RWWTP is a secondary-level treatment plant that utilizes screening, grit removal, primary clarification, trickling filtration, secondary clarification, effluent ponds, and disinfection. The RWWTP currently treats approximately 1.2 million gallons per day of wastewater.

In Tuolumne County, the collection of storm drainage varies from no collection facilities to storm drainage systems in developed areas. There are no storm drainage facilities on the project site; the site is drained directly by Sonora Creek. While sidewalk has been installed along the Cabezut Road frontage of the project site, no gutter, inlets, or other storm drainage facilities have been installed, and no improvements have been installed along the Cedar Road or the Greenley Road frontages. As noted in Section 3.10, Hydrology and Water Quality, under existing conditions, precipitation either percolates into the ground or drains to Sonora Creek.

Solid waste in Tuolumne County is collected by three solid waste providers: Cal Sierra Disposal, Burns Refuse Service, and Moore Bros. Scavenger Co. Collected solid waste is disposed of at the Highway 59 Landfill in Merced. The Highway 59 Landfill has a maximum permitted throughput of 1,500 tons per day and receives 677.6 tons per day six days per week. The landfill has remaining capacity of 28,025,334 cubic yards and is expected to remain in operation until 2030 (CalRecycle 2021).

Environmental Impacts and Mitigation Measures

a) Relocation or Construction of New Facilities.

The project would connect to existing water, sewer, and electricity lines in the immediate project vicinity. No new substantial utility facilities would need to be constructed or relocated to provide these services. No storm drainage facilities are proposed. The project would occur in an area that already has substantial urban development. Project impacts related to relocation or construction of new facilities would be less than significant.

b) Water Systems and Supply.

The project would connect to the existing TUD water system in the area. No new water mains to serve the project site would be needed. The project would place additional demand on the County's water supply. However, as noted above, TUD's water system had approximately 16,267 acre-feet of available water supply in 2020. Based on the 2020 average water usage of 139 gallons per capita per day (TUD 2021), total water demand by the project would be 26,410 gallons per day, or approximately 29.6 acre-feet per year. Moreover, TUD estimates that it would have no lower than 22,115 acre-feet of water per year under single dry-year and multiple-year conditions, and it would have a surplus of no less than 5,147 acre-feet of water supply per year over water demand during a five-year

drought (TUD 2021). TUD would have adequate water supply to accommodate project demand under various rainfall conditions. Project impacts on water systems and supply would be less than significant.

c) Wastewater Treatment Capacity.

The project would place additional demand on the County's wastewater collection and treatment system. Based on a factor of 159 gallons per day per equivalent single family residential and an equivalent single-family residential factor of 0.7 for high-density residential units (TUD 2018), the amount of wastewater that would be generated by the project would be approximately 9,349 gallons per day. As indicated above, the RWWTP currently has available capacity of approximately 1.4 million gallons per day. Thus, TUD's wastewater treatment system would have adequate capacity to accommodate wastewater generated by project activities. Project impacts on wastewater treatment capacity would be less than significant.

d, e) Solid Waste Services.

Project operations would generate solid waste materials consistent with high-density residential land uses. Solid waste generated by multifamily residential land uses has been estimated to range from 3.6 to 8.6 pounds per unit per day (CalRecycle 2019). If the high end of the range is used, then the project would generate 722.4 pounds per day of solid waste. Using a factor of 95 pounds of uncompacted mixed municipal solid waste from multifamily land uses per cubic yard (EPA 2016), the project would generate approximately 7.6 cubic yards of solid waste per day. The Highway 59 Landfill has adequate capacity to accommodate this solid waste. All solid waste generated during construction and operations would be removed in accordance with federal, state, and local regulations. Project impacts would be less than significant.

3.20 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?

		✓	
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NARRATIVE DISCUSSION

Environmental Setting

The County has a significant wildfire history. From 1987 to 2018, there were 15 wildfires that burned 750 or more acres. One of these, the Rim Fire of 2013, burned 257,314 acres. Wildfire outbreaks occur routinely during the County's dry season and are predominantly, four out of every five times, generated by humans. As a natural hazard, a wildfire is often the direct result of a lightning strike (County of Tuolumne 2018b).

Cal Fire's Fire and Resource Assessment Program identifies fire threat based on a combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard). These two factors are combined in determining the following Fire Hazard Severity Zones: Moderate, High, Very High, Extreme. These zones apply to areas designated as State Responsibility Areas – areas in which the State has primary firefighting responsibility. The project site is within a State Responsibility Area and has been placed in a Very High Fire Hazard Severity Zone (Cal Fire 2007).

Environmental Impacts and Mitigation Measures

a) Emergency Response Plans and Emergency Evacuation Plans.

As discussed in Section 3.9, Hazards and Hazardous Materials, project construction is not expected to substantially obstruct emergency vehicles or any evacuations that may occur in the area with implementation of Mitigation Measure HAZ-1. The project would not obstruct any roadways once construction work is completed. Project impacts related to wildfire emergency response plans or emergency evacuation plans would be less than significant with mitigation.

Level of Significance: Potentially significant

Mitigation Measures: Implementation of Mitigation Measure HAZ-1.

Significance after Mitigation: Less than significant

b) Exposure of Project Occupants to Wildfire Hazards.

The project site is part of a State Responsibility Area, and Cal Fire maps indicate the site is designated within a Very High Fire Hazard Severity Zone. The project site is in an area that contains substantial amounts of open space and vegetation, which are prone to wildfires. Thus, the project would be subject to a substantial wildfire risk.

As noted in Section 3.9, Hazards and Hazardous Materials, the project would reduce the existing fire hazard on the site by replacing much of the existing vegetation with a

developed and paved area. There are also existing water lines with fire hydrants in the vicinity that would assist in firefighting efforts.

Tuolumne County Ordinance Code Chapter 15.20 sets fire safety standards for development. Setbacks for structure defensible space shall comply with Title 14 California Code of Regulations Section 1276.01, which requires a minimum 30-foot setback for buildings and accessory buildings from all property lines and/or the center of the road for parcels one acre and larger. Defensible space shall be provided around all buildings and accessory buildings on parcels located in areas that are classified as Moderate, High, or Very High by CalFire's Fire and Resource Assessment Program. Fire hazard reduction plans, as required by Section 16.08.030 of the Tuolumne County Ordinance Code, shall be developed to reduce the intensity of a wildfire by reducing the volume and density of flammable vegetation through the strategic siting of fuel modification and greenbelts to provide increased safety for emergency fire equipment and evacuating civilians and a point of attack or defense from a wildfire.

Compliance with the applicable provisions of the County Ordinance Code, along with the presence of fire hydrants, would minimize the risk of wildfire the project would encounter. Project impacts related to exposure of project occupants to wildfire hazards would be less than significant.

c) Installation and Maintenance of Infrastructure.

The project proposes the installation of parking areas and the extension of utilities. The installation of these facilities is not expected to exacerbate the wildfire risk on the project site, as there are existing utility lines in the area, and the parking areas would not exacerbate wildfire risks. In fact, as noted in b) above, the parking areas would reduce wildfire risks by replacing vegetation with pavement. Project impacts related to exacerbation of wildfire hazards by infrastructure improvements would be less than significant.

d) Risks from Runoff, Post-Fire Slope Instability, or Drainage Changes.

Sonora Creek flows by the project site. As such, people or structures on the project site could be exposed to risks from changes resulting from fires in steeper areas, including downslope or downstream flooding or landslides. However, the project would be set back from Sonora Creek and built on graded topography that would reduce the potential exposure to such risks. The project impacts related to risks from runoff, post-fire slope instability, or drainage changes would be less than significant.

3.21 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?			✓	

NARRATIVE DISCUSSION

a) Findings on Biological and Cultural Resources.

The project's potential biological and cultural resource impacts were described in Sections 3.4 and 3.5, respectively. Potentially significant environmental effects were identified in both issue areas, but these effects would be reduced to levels that would be less than significant with implementation of identified mitigation measures.

b) Findings on Individually Limited but Cumulatively Considerable Impacts.

The potential cumulative impacts of urban development of the site were accounted for in the Tuolumne County General Plan EIR (County of Tuolumne 2018a). The potential environmental effects identified in this IS/MND have been considered in conjunction with each other as to their potential to generate other potentially significant effects.

As described in this IS/MND, the potential environmental effects of the project would either be less than significant or would have no impact at all. Where the project involves potentially significant effects, these effects would be avoided or reduced to a level that is less than significant with proposed mitigation measures and/or compliance with applicable regulations and conditions of required permits. The various potential environmental effects of the project would not combine to generate any potentially significant cumulative effects. Overall, the cumulative effects of the project were determined to be less than significant.

c) Findings on Adverse Effects on Human Beings.

Potential adverse effects on human beings were discussed in Section 3.3, Air Quality, Section 3.7, Geology and Soils (seismic hazards); Section 3.9, Hazards and Hazardous Materials; Section 3.10, Hydrology and Water Quality (flooding); Section 3.17, Transportation (traffic hazards); and Section 3.20, Wildfire. All potential adverse effects on human beings identified in those sections would be reduced to levels that are less than significant through compliance with applicable laws, regulations, and ordinances.

4.0 REFERENCES

4.1 DOCUMENT PREPARERS

This IS/MND was prepared by BaseCamp Environmental, Inc. for use by and under the supervision of the Tuolumne County Community Development Department. The following persons were involved in preparation of the IS/MND:

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4.3 PERSONS CONSULTED

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Walker, Corey, P.E., L.S.I.T. North Star Engineering Group, Inc.

Walker, Richard. Tuolumne County Community Development Department.

Watson, Ben. Madrone Ecological Consulting, LLC.

5.0 NOTES RELATED TO EVALUATION OF ENVIRONMENTAL IMPACTS

The following notes are included in the Environmental Information Checklist shown in Appendix G of the State CEQA guidelines. The notes provide guidance as to the proper use of the form.

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed: Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

- c) Mitigation Measures: For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

APPENDIX A

AIR QUALITY MODELING RESULTS

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Hidden Meadows Terrace
Tuolumne County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	84.00	Dwelling Unit	2.21	84,000.00	240

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	66
Climate Zone	1			Operational Year	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use -
- Construction Phase - No demolition.
- Land Use Change - CalEEMod value.
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -
- Water Mitigation -
- Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	6.00	10.00

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	PhaseEndDate	4/13/2023	4/24/2023
tblConstructionPhase	PhaseEndDate	5/27/2022	5/1/2022
tblConstructionPhase	PhaseEndDate	6/9/2022	6/20/2022
tblConstructionPhase	PhaseEndDate	6/1/2022	5/6/2022
tblConstructionPhase	PhaseStartDate	6/10/2022	6/21/2022
tblConstructionPhase	PhaseStartDate	6/2/2022	6/7/2022
tblConstructionPhase	PhaseStartDate	5/28/2022	5/2/2022
tblLandUseChange	CO2peracre	14.30	4.31

2.0 Emissions Summary

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1705	1.2137	1.2636	2.3800e-003	0.0612	0.0548	0.1160	0.0206	0.0523	0.0729	0.0000	202.6537	202.6537	0.0342	3.3900e-003	204.5200
2023	1.4056	0.6394	0.7485	1.3900e-003	0.0226	0.0277	0.0503	6.0700e-003	0.0265	0.0326	0.0000	118.6270	118.6270	0.0194	1.9000e-003	119.6773
Maximum	1.4056	1.2137	1.2636	2.3800e-003	0.0612	0.0548	0.1160	0.0206	0.0523	0.0729	0.0000	202.6537	202.6537	0.0342	3.3900e-003	204.5200

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1705	1.2137	1.2636	2.3800e-003	0.0612	0.0548	0.1160	0.0206	0.0523	0.0729	0.0000	202.6535	202.6535	0.0342	3.3900e-003	204.5199
2023	1.4056	0.6394	0.7485	1.3900e-003	0.0226	0.0277	0.0503	6.0700e-003	0.0265	0.0326	0.0000	118.6269	118.6269	0.0194	1.9000e-003	119.6772
Maximum	1.4056	1.2137	1.2636	2.3800e-003	0.0612	0.0548	0.1160	0.0206	0.0523	0.0729	0.0000	202.6535	202.6535	0.0342	3.3900e-003	204.5199

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-2-2022	8-1-2022	0.3925	0.3925
2	8-2-2022	11-1-2022	0.5900	0.5900
3	11-2-2022	2-1-2023	0.5774	0.5774
4	2-2-2023	5-1-2023	0.9149	0.9149
5	5-2-2023	8-1-2023	0.9444	0.9444
		Highest	0.9444	0.9444

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.7489	0.1101	7.1295	0.0118		0.9157	0.9157		0.9157	0.9157	86.7685	37.4082	124.1767	0.0811	6.8200e-003	128.2368
Energy	1.7100e-003	0.0146	6.2300e-003	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	47.8243	47.8243	5.3200e-003	9.2000e-004	48.2303
Mobile	0.4411	0.6269	3.5671	5.0100e-003	0.4524	6.5500e-003	0.4589	0.1214	6.1700e-003	0.1276	0.0000	462.3070	462.3070	0.0445	0.0288	471.9952
Waste						0.0000	0.0000		0.0000	0.0000	7.8436	0.0000	7.8436	0.4635	0.0000	19.4321
Water						0.0000	0.0000		0.0000	0.0000	1.7363	3.8573	5.5937	0.1790	4.2900e-003	11.3450
Total	6.1917	0.7516	10.7028	0.0169	0.4524	0.9234	1.3758	0.1214	0.9230	1.0444	96.3483	551.3968	647.7452	0.7734	0.0408	679.2395

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.7489	0.1101	7.1295	0.0118		0.9157	0.9157		0.9157	0.9157	86.7685	37.4082	124.1767	0.0811	6.8200e-003	128.2368
Energy	1.7100e-003	0.0146	6.2300e-003	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	47.8243	47.8243	5.3200e-003	9.2000e-004	48.2303
Mobile	0.3485	0.3938	2.3090	2.9600e-003	0.2630	3.9800e-003	0.2670	0.0706	3.7400e-003	0.0743	0.0000	273.2688	273.2688	0.0321	0.0189	279.6966
Waste						0.0000	0.0000		0.0000	0.0000	1.9609	0.0000	1.9609	0.1159	0.0000	4.8580
Water						0.0000	0.0000		0.0000	0.0000	1.3891	3.0859	4.4749	0.1432	3.4300e-003	9.0760
Total	6.0991	0.5185	9.4448	0.0149	0.2630	0.9208	1.1839	0.0706	0.9206	0.9912	90.1184	361.5872	451.7056	0.3775	0.0301	470.0978

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.50	31.02	11.75	12.12	41.85	0.28	13.95	41.85	0.26	5.10	6.47	34.42	30.26	51.19	26.37	30.79

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.3 Vegetation****Vegetation**

	CO2e
Category	MT
Vegetation Land Change	-15.0850
Total	-15.0850

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2022	5/1/2022	5	0	
2	Site Preparation	Site Preparation	5/2/2022	5/6/2022	5	5	
3	Grading	Grading	6/7/2022	6/20/2022	5	10	
4	Building Construction	Building Construction	6/21/2022	4/24/2023	5	220	
5	Paving	Paving	4/14/2023	4/27/2023	5	10	
6	Architectural Coating	Architectural Coating	4/28/2023	5/11/2023	5	10	

Acres of Grading (Site Preparation Phase): 4.5**Acres of Grading (Grading Phase): 6****Acres of Paving: 0**

Residential Indoor: 170,100; Residential Outdoor: 56,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction On-Site

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Demolition - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 Site Preparation - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4500e-003	0.0392	0.0251	6.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003	0.0000	5.3868	5.3868	1.7400e-003	0.0000	5.4303
Total	3.4500e-003	0.0392	0.0251	6.0000e-005	2.3900e-003	1.4900e-003	3.8800e-003	2.6000e-004	1.3700e-003	1.6300e-003	0.0000	5.3868	5.3868	1.7400e-003	0.0000	5.4303

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Site Preparation - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	8.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1398	0.1398	1.0000e-005	1.0000e-005	0.1418
Total	1.3000e-004	9.0000e-005	8.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1398	0.1398	1.0000e-005	1.0000e-005	0.1418

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4500e-003	0.0392	0.0251	6.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003	0.0000	5.3868	5.3868	1.7400e-003	0.0000	5.4303
Total	3.4500e-003	0.0392	0.0251	6.0000e-005	2.3900e-003	1.4900e-003	3.8800e-003	2.6000e-004	1.3700e-003	1.6300e-003	0.0000	5.3868	5.3868	1.7400e-003	0.0000	5.4303

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Site Preparation - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	8.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1398	0.1398	1.0000e-005	1.0000e-005	0.1418
Total	1.3000e-004	9.0000e-005	8.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1398	0.1398	1.0000e-005	1.0000e-005	0.1418

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7000e-003	0.0849	0.0461	1.0000e-004		3.7100e-003	3.7100e-003		3.4100e-003	3.4100e-003	0.0000	9.0514	9.0514	2.9300e-003	0.0000	9.1245
Total	7.7000e-003	0.0849	0.0461	1.0000e-004	0.0213	3.7100e-003	0.0250	0.0103	3.4100e-003	0.0137	0.0000	9.0514	9.0514	2.9300e-003	0.0000	9.1245

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Grading - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.2000e-004	2.1700e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3495	0.3495	2.0000e-005	2.0000e-005	0.3545
Total	3.4000e-004	2.2000e-004	2.1700e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3495	0.3495	2.0000e-005	2.0000e-005	0.3545

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7000e-003	0.0849	0.0461	1.0000e-004		3.7100e-003	3.7100e-003		3.4100e-003	3.4100e-003	0.0000	9.0514	9.0514	2.9300e-003	0.0000	9.1245
Total	7.7000e-003	0.0849	0.0461	1.0000e-004	0.0213	3.7100e-003	0.0250	0.0103	3.4100e-003	0.0137	0.0000	9.0514	9.0514	2.9300e-003	0.0000	9.1245

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Grading - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.2000e-004	2.1700e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3495	0.3495	2.0000e-005	2.0000e-005	0.3545
Total	3.4000e-004	2.2000e-004	2.1700e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3495	0.3495	2.0000e-005	2.0000e-005	0.3545

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1290	1.0150	0.9976	1.7400e-003		0.0488	0.0488		0.0468	0.0468	0.0000	144.3377	144.3377	0.0279	0.0000	145.0338
Total	0.1290	1.0150	0.9976	1.7400e-003		0.0488	0.0488		0.0468	0.0468	0.0000	144.3377	144.3377	0.0279	0.0000	145.0338

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0100e-003	0.0558	0.0110	1.5000e-004	4.0700e-003	5.2000e-004	4.6000e-003	1.1800e-003	5.0000e-004	1.6800e-003	0.0000	14.2397	14.2397	9.0000e-005	2.1000e-003	14.8689
Worker	0.0279	0.0185	0.1808	3.2000e-004	0.0329	2.7000e-004	0.0332	8.7600e-003	2.5000e-004	9.0000e-003	0.0000	29.1489	29.1489	1.6000e-003	1.2700e-003	29.5661
Total	0.0300	0.0743	0.1918	4.7000e-004	0.0370	7.9000e-004	0.0378	9.9400e-003	7.5000e-004	0.0107	0.0000	43.3886	43.3886	1.6900e-003	3.3700e-003	44.4350

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1290	1.0150	0.9976	1.7400e-003		0.0488	0.0488		0.0468	0.0468	0.0000	144.3375	144.3375	0.0279	0.0000	145.0337
Total	0.1290	1.0150	0.9976	1.7400e-003		0.0488	0.0488		0.0468	0.0468	0.0000	144.3375	144.3375	0.0279	0.0000	145.0337

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0100e-003	0.0558	0.0110	1.5000e-004	4.0700e-003	5.2000e-004	4.6000e-003	1.1800e-003	5.0000e-004	1.6800e-003	0.0000	14.2397	14.2397	9.0000e-005	2.1000e-003	14.8689
Worker	0.0279	0.0185	0.1808	3.2000e-004	0.0329	2.7000e-004	0.0332	8.7600e-003	2.5000e-004	9.0000e-003	0.0000	29.1489	29.1489	1.6000e-003	1.2700e-003	29.5661
Total	0.0300	0.0743	0.1918	4.7000e-004	0.0370	7.9000e-004	0.0378	9.9400e-003	7.5000e-004	0.0107	0.0000	43.3886	43.3886	1.6900e-003	3.3700e-003	44.4350

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0694	0.5518	0.5757	1.0100e-003		0.0249	0.0249		0.0238	0.0238	0.0000	84.1193	84.1193	0.0159	0.0000	84.5170
Total	0.0694	0.5518	0.5757	1.0100e-003		0.0249	0.0249		0.0238	0.0238	0.0000	84.1193	84.1193	0.0159	0.0000	84.5170

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5000e-004	0.0280	5.2100e-003	8.0000e-005	2.3700e-003	1.7000e-004	2.5400e-003	6.9000e-004	1.6000e-004	8.5000e-004	0.0000	8.0762	8.0762	3.0000e-005	1.1900e-003	8.4305
Worker	0.0152	9.5400e-003	0.0949	1.8000e-004	0.0192	1.4000e-004	0.0193	5.1000e-003	1.3000e-004	5.2400e-003	0.0000	16.4827	16.4827	8.4000e-004	6.8000e-004	16.7054
Total	0.0160	0.0376	0.1001	2.6000e-004	0.0216	3.1000e-004	0.0219	5.7900e-003	2.9000e-004	6.0900e-003	0.0000	24.5589	24.5589	8.7000e-004	1.8700e-003	25.1358

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0694	0.5518	0.5757	1.0100e-003		0.0249	0.0249		0.0238	0.0238	0.0000	84.1192	84.1192	0.0159	0.0000	84.5169
Total	0.0694	0.5518	0.5757	1.0100e-003		0.0249	0.0249		0.0238	0.0238	0.0000	84.1192	84.1192	0.0159	0.0000	84.5169

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5000e-004	0.0280	5.2100e-003	8.0000e-005	2.3700e-003	1.7000e-004	2.5400e-003	6.9000e-004	1.6000e-004	8.5000e-004	0.0000	8.0762	8.0762	3.0000e-005	1.1900e-003	8.4305
Worker	0.0152	9.5400e-003	0.0949	1.8000e-004	0.0192	1.4000e-004	0.0193	5.1000e-003	1.3000e-004	5.2400e-003	0.0000	16.4827	16.4827	8.4000e-004	6.8000e-004	16.7054
Total	0.0160	0.0376	0.1001	2.6000e-004	0.0216	3.1000e-004	0.0219	5.7900e-003	2.9000e-004	6.0900e-003	0.0000	24.5589	24.5589	8.7000e-004	1.8700e-003	25.1358

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Paving - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	2.9000e-004	2.9300e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5087	0.5087	3.0000e-005	2.0000e-005	0.5156
Total	4.7000e-004	2.9000e-004	2.9300e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5087	0.5087	3.0000e-005	2.0000e-005	0.5156

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Paving - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	2.9000e-004	2.9300e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5087	0.5087	3.0000e-005	2.0000e-005	0.5156
Total	4.7000e-004	2.9000e-004	2.9300e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5087	0.5087	3.0000e-005	2.0000e-005	0.5156

3.7 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3140					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	1.3150	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.7 Architectural Coating - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.4000e-004	2.3400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4070	0.4070	2.0000e-005	2.0000e-005	0.4125
Total	3.8000e-004	2.4000e-004	2.3400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4070	0.4070	2.0000e-005	2.0000e-005	0.4125

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3140					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	1.3150	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.7 Architectural Coating - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.4000e-004	2.3400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4070	0.4070	2.0000e-005	2.0000e-005	0.4125
Total	3.8000e-004	2.4000e-004	2.3400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4070	0.4070	2.0000e-005	2.0000e-005	0.4125

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3485	0.3938	2.3090	2.9600e-003	0.2630	3.9800e-003	0.2670	0.0706	3.7400e-003	0.0743	0.0000	273.2688	273.2688	0.0321	0.0189	279.6966
Unmitigated	0.4411	0.6269	3.5671	5.0100e-003	0.4524	6.5500e-003	0.4589	0.1214	6.1700e-003	0.1276	0.0000	462.3070	462.3070	0.0445	0.0288	471.9952

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	456.96	412.44	343.56	1,219,897	709,376
Total	456.96	412.44	343.56	1,219,897	709,376

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	37.30	20.70	42.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.409773	0.074310	0.207884	0.166228	0.063246	0.011231	0.007472	0.003645	0.001136	0.000418	0.044154	0.002041	0.008462

5.0 Energy Detail

Historical Energy Use: N

Hidden Meadows Terrace - Tuolumne County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	30.8740	30.8740	4.9900e-003	6.1000e-004	31.1792
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	30.8740	30.8740	4.9900e-003	6.1000e-004	31.1792
NaturalGas Mitigated	1.7100e-003	0.0146	6.2300e-003	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	16.9504	16.9504	3.2000e-004	3.1000e-004	17.0511
NaturalGas Unmitigated	1.7100e-003	0.0146	6.2300e-003	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	16.9504	16.9504	3.2000e-004	3.1000e-004	17.0511

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	317638	1.7100e-003	0.0146	6.2300e-003	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	16.9504	16.9504	3.2000e-004	3.1000e-004	17.0511
Total		1.7100e-003	0.0146	6.2300e-003	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	16.9504	16.9504	3.2000e-004	3.1000e-004	17.0511

5.2 Energy by Land Use - NaturalGas

|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

5.3 Energy by Land Use - Electricity

		Total			
Apartments Mild Rise		333687	30.8740	4.9900e-003	6.1000e-004
31.1792					
Land Use		kWh/yr		MT/yr	
Electricity Use		Total CO2		CH4	N2O
CO2e					

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	333687	30.8740	4.9900e-003	6.1000e-004	31.1792
Total		30.8740	4.9900e-003	6.1000e-004	31.1792

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.7489	0.1101	7.1295	0.0118		0.9157	0.9157		0.9157	0.9157	86.7685	37.4082	124.1767	0.0811	6.8200e-003	128.2368
Unmitigated	5.7489	0.1101	7.1295	0.0118		0.9157	0.9157		0.9157	0.9157	86.7685	37.4082	124.1767	0.0811	6.8200e-003	128.2368

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.2707	0.1029	6.5061	0.0118		0.9122	0.9122		0.9122	0.9122	86.7685	36.3894	123.1579	0.0801	6.8200e-003	127.1935
Landscaping	0.0188	7.1800e-003	0.6235	3.0000e-005		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	1.0188	1.0188	9.8000e-004	0.0000	1.0433
Total	5.7489	0.1101	7.1295	0.0118		0.9157	0.9157		0.9157	0.9157	86.7685	37.4082	124.1767	0.0811	6.8200e-003	128.2368

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.2707	0.1029	6.5061	0.0118		0.9122	0.9122		0.9122	0.9122	86.7685	36.3894	123.1579	0.0801	6.8200e-003	127.1935
Landscaping	0.0188	7.1800e-003	0.6235	3.0000e-005		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	1.0188	1.0188	9.8000e-004	0.0000	1.0433
Total	5.7489	0.1101	7.1295	0.0118		0.9157	0.9157		0.9157	0.9157	86.7685	37.4082	124.1767	0.0811	6.8200e-003	128.2368

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.4749	0.1432	3.4300e-003	9.0760
Unmitigated	5.5937	0.1790	4.2900e-003	11.3450

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	5.47294 / 3.45033	5.5937	0.1790	4.2900e-003	11.3450
Total		5.5937	0.1790	4.2900e-003	11.3450

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.37835 / 2.76026	4.4749	0.1432	3.4300e-003	9.0760
Total		4.4749	0.1432	3.4300e-003	9.0760

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.9609	0.1159	0.0000	4.8580
Unmitigated	7.8436	0.4635	0.0000	19.4321

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	38.64	7.8436	0.4635	0.0000	19.4321
Total		7.8436	0.4635	0.0000	19.4321

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	9.66	1.9609	0.1159	0.0000	4.8580
Total		1.9609	0.1159	0.0000	4.8580

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-15.0850	0.0000	0.0000	-15.0850

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Acres	MT				
Scrub	6 / 2.5	-15.0850	0.0000	0.0000	-15.0850
Total		-15.0850	0.0000	0.0000	-15.0850

APPENDIX B
BIOLOGICAL RESOURCE MATERIALS



Biological Resources Assessment

Hidden Meadow Terrace

Tuolumne County, California

August 2021



Prepared for:

Visionary Home Builders of California, Inc.
315 N. San Joaquin Street
Stockton, CA 95202

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CONTENTS

Biological Resources Assessment Hidden Meadow Terrace

1.0 Introduction	1
1.1 Project Description	1
2.0 Regulatory Setting	1
2.1 Federal Regulations	1
2.1.1 Federal Endangered Species Act	1
2.1.2 Clean Water Act, Section 404	2
2.1.3 Migratory Bird Treaty Act	2
2.2 State Regulations	2
2.2.1 California Environmental Quality Act	2
2.2.2 State Endangered Species Act	3
2.2.3 Native Plant Protection Act	3
2.2.4 Clean Water Act, Section 401	3
2.2.5 California Water Code, Porter-Cologne Act	4
2.2.6 California Fish and Game Code, Section 1600 – Streambed and Lake Alteration	4
2.2.7 California Fish and Game Code, Section 3503.5 – Raptor Nests	4
2.3 Local Regulations	5
2.3.1 Tuolumne County Wildlife Handbook	5
2.3.2 Oak Protection	5
3.0 Methodology	5
3.1 Literature Review	5
3.2 Field Surveys	6
4.0 Existing Conditions	6
4.1 Terrestrial Plant Communities	7
4.1.1 Valley Oak Riparian Woodland	7
4.1.2 Goodding’s Willow – Red Willow Riparian Scrub	7
4.1.3 Interior Live Oak Woodland	8
4.1.4 Mixed Oak Woodland	8
4.1.5 Armenian Blackberry Bramble	8
4.1.6 Annual Brome Grassland	8
4.1.7 Developed	8
4.2 Aquatic Resources	9
4.2.1 Sonora Creek (Perennial Creek)	9
4.2.2 Intermittent Drainage	9
4.2.3 Seasonal Wetland	10
4.2.4 Riparian Wetland	10
4.3 Soils	10
5.0 Results	10
5.1 Plants	20

5.1.1 Big-Scale Balsamroot.....	20
5.1.2 Tuolumne Button-Celery	20
5.1.3 King's River Monkeyflower	20
5.1.4 Tuolumne Fawn Lily	21
5.1.5 Parry's Horkelia	21
5.1.6 Tuolumne Iris	21
5.2 Invertebrates.....	22
5.2.1 Crotch Bumble Bee.....	22
5.3 Fish	22
5.3.1 San Joaquin Roach.....	22
5.4 Amphibians.....	23
5.4.1 California Red-legged Frog.....	23
5.5 Reptiles	24
5.5.1 Western Pond Turtle	24
5.6 Birds	24
5.6.1 Tricolored Blackbird	24
5.7 Mammals	25
5.6.1 Pallid Bat.....	25
5.6.2 Townsend's Big-Eared Bat	25
6.0 Impacts to Sensitive Biological Resources	26
6.1 Aquatic Resources	26
6.2 Special-Status Plant Species	26
6.3 Crotch Bumblebee	26
6.4 San Joaquin Roach.....	27
6.5 California Red-legged Frog	27
6.6 Western Pond Turtle.....	27
6.7 Nesting Raptors and Songbirds.....	27
6.8 Roosting Bats.....	27
6.9 Oak Woodlands	27
7.0 Mitigation for Impacts to Sensitive Biological Resources	28
7.1 Riparian Vegetation	28
7.2 Special-Status Plant Species	28
7.3 Crotch Bumble Bee	29
7.4 California Red-legged Frog	29
7.5 Western Pond Turtle.....	29
7.6 Nesting Raptors and Other Birds	30
7.7 Roosting Bats.....	30
7.8 Oak Woodlands	31
7.9 Protection of Oak Trees During and After Construction Activities.....	31
7.10 Worker Environmental Awareness Training.....	31
8.0 References.....	32

Tables

Table 1. Potential Aquatic Resources Mapped within the Study Area.....	9
Table 2. Special-Status Species Potential for Occurrence within the Hidden Meadow Terrace Study Area	11
Table 3. Oak Woodland Impacts and Avoidance	28

Figures

Figure 1. Vicinity Map	
Figure 2. California Natural Diversity Database Occurrences of Plant and Wildlife Species	
Figure 3. Vegetation Communities and Aquatic Resources	
Figure 4. NRCS Soils Map	
Figure 5. Oak Resources	
Figure 6. Vegetation Community, Aquatic Resources, and Oak Resources Impacts	
Figure 7. Potential California Red-legged Frog Upland Habitat	

Attachments

Attachment A. Conceptual Site Plan	
Attachment B. IPaC Trust Resource Report for the Study Area	
Attachment C. CNPS Inventory of Rare and Endangered Plants Query for the "Standard, California" USGS Quadrangle and Eight Surrounding Quadrangles	

1.0 INTRODUCTION

This report presents the results of a Biological Resources Assessment (BRA) conducted for the Hidden Meadow Terrace Project site (Study Area) conducted by Madrone Ecological Consulting, LLC (Madrone). The approximately 6.3-acre Study Area is located north of the intersection of Greenley Road and Cabezut Road in the County of Sonora in Tuolumne County, California. Sonora Creek flows along the northern boundary of the Study Area from northeast to southwest. The Study Area includes a portion of Section 31 within Township 2 North and Range 15 East MDB&M of the "Standard, California" 7.5-minute quadrangle (USGS 1987) (Figure 1).

1.1 Project Description

The Hidden Meadow Terrace Project proposes to construct an apartment complex consisting of five buildings on an undeveloped site in East Sonora (**Attachment A**). Four buildings would have a total of 72 apartment units, ranging in size from one bedroom to three bedrooms. All units are intended to be offered at a rent affordable to households making 30-50% of the local Area Median Income. The other building would be a community center for apartment residents. Additional project components include parking spaces, landscaping, and utility improvements.

2.0 REGULATORY SETTING

This section describes federal, state and local laws and policies that are relevant to this assessment of biological resources.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 protects species that are federally listed as endangered or threatened with extinction. FESA prohibits the unauthorized "take" of listed wildlife species. Take includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such activities. Harm includes significant modifications or degradations of habitats that may cause death or injury to protected species by impairing their behavioral patterns. Harassment includes disruption of normal behavior patterns that may result in injury to or mortality of protected species. Civil or criminal penalties can be levied against persons convicted of unauthorized "take." In addition, FESA prohibits malicious damage or destruction of listed plant species on federal lands or in association with federal actions, and the removal, cutting, digging up, damage, or destruction of listed plant species in violation of state law. FESA does not afford any protections to federally listed plant species that are not also included on a state endangered species list on private lands with no associated federal action.

2.1.2 Clean Water Act, Section 404

Section 404 of the Federal Clean Water Act requires that a Department of the Army permit be issued prior to the discharge of any dredged or fill material into Waters of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) administers this program, with oversight from the U.S. Environmental Protection Agency. The definition of Waters of the United States has changed several times in recent years. The current definition of Waters of the United States (Waters) is based on the 2020 Navigable Waters Protection Rule (NWPR), and includes the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide; perennial and intermittent tributaries to the above; lakes, ponds, and impoundments that contribute surface flow to the above in a typical year; and wetlands “adjacent” to the above. The NWPR expressly excludes certain categories of aquatic resources from USACE jurisdiction, including ephemeral drainages and a variety of different types of aquatic resources constructed in uplands. In addition, wetlands with no surface water connection to otherwise jurisdictional waters in a typical year are not USACE jurisdictional.

2.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any native migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11.). Likewise, Section 3513 of the California Fish & Game Code prohibits the “take or possession” of any migratory non-game bird identified under the MBTA. Therefore, activities that may result in the injury or mortality of native migratory birds, including eggs and nestlings, would be prohibited under the MBTA.

2.2 State Regulations

2.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires evaluations of project effects on biological resources. Determining the significance of those effects is guided by Appendix G of the CEQA guidelines. These evaluations must consider direct effects on a biological resource within the project site itself, indirect effects on adjacent resources, and cumulative effects within a larger area or region. Effects can be locally important but not significant according to CEQA if they would not substantially affect the regional population of the biological resource. Significant adverse impacts on biological resources would include the following:

- Substantial adverse effects on any species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS) (these effects could be either direct or via habitat modification);
- Substantial adverse impacts to species designated by the California Department of Fish and Game (2009) as Species of Special Concern;

- Substantial adverse effects on riparian habitat or other sensitive habitat identified in local or regional plans, policies, or regulations or by CDFW and USFWS;
- Substantial adverse effects on federally protected wetlands defined under Section 404 of the Clean Water Act (these effects include direct removal, filling, or hydrologic interruption of marshes, vernal pools, coastal wetlands, or other wetland types);
- Substantial interference with movements of native resident or migratory fish or wildlife species population, or with use of native wildlife nursery sites;
- Conflicts with local policies or ordinances protecting biological resources (e.g. tree preservation policies); and
- Conflict with provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

2.2.2 State Endangered Species Act

With limited exceptions, the California Endangered Species Act (CESA) of 1984 protects state-designated endangered and threatened species in a way similar to FESA. For projects on private property (i.e. that for which a state agency is not a lead agency), CESA enables CDFW to authorize take of a listed species that is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code Section 2081).

2.2.3 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. There are 64 species, subspecies, and varieties of plants that 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.

2.2.4 Clean Water Act, Section 401

Section 401 of the Clean Water Act requires any applicant for a 404 permit in support of activities that may result in any discharge into waters of the United States to obtain a water quality certification with the Regional Water Quality Control Board (RWQCB). This program is meant to protect these waters and wetlands by ensuring that waste discharged into them meets state water quality standards. Because the water quality certification program is triggered by the need for a Section 404 permit (and both programs are a part of the Clean Water Act), the definition of waters of the United States under Section 401 is the same as that used by the USACE under Section 404.

2.2.5 California Water Code, Porter-Cologne Act

The Porter Cologne Act, from Division 7 of the California Water Code, requires any person discharging waste or proposing to discharge waste that could affect the quality of waters of the state to file a report of waste discharge (RWD) with the RWQCB. The RWQCB can waive the filing of a report, but once a report is filed, the RWQCB must either waive or adopt water discharge requirements (WDRs). “Waters of the state” are defined as any surface water or groundwater, including saline waters, within the boundaries of the state.

It should be noted that some of the aquatic resources within the Study Areas are not USACE jurisdictional under the current definition of Waters of the U.S. However, all of the aquatic resources are considered Waters of the State and are subject to regulation by the State through the California Water Code Porter-Cologne Act.

2.2.6 California Fish and Game Code, Section 1600 – Streambed and Lake Alteration

The CDFW is responsible for conserving, protecting, and managing California’s fish, wildlife, and native plant resources. To meet this responsibility, the Fish and Game Code, 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 where it may 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. CDFW also frequently asserts jurisdiction over riparian vegetation associated with rivers, streams, or lakes, and requires an Agreement under Section 1602 for impacts to such resources. If notification is required and CDFW believes the proposed activity is likely to result in adverse harm to the natural environment, it will require that the parties enter into a Lake or Streambed Alteration Agreement (LSAA). The only mechanism available to receive written confirmation from CDFW whether or not an LSAA is required is to submit a notification.

2.2.7 California Fish and Game Code, Section 3503.5 - Raptor Nests

Section 3503.5 of the Fish and Game Code makes it unlawful to take, possess, or destroy hawks or owls, unless permitted to do so, or to destroy the nest or eggs of any hawk or owl.

2.3 Local Regulations

2.3.1 Tuolumne County Wildlife Handbook

The Wildlife Handbook was adopted by the Tuolumne County Board of Supervisors in 1987, and is still being implemented as an option to guide natural resources management and mitigation. Newer guidance documents have been drafted, but Tuolumne County staff state that the newer documents have not been adopted, and are currently not being implemented.

2.3.2 Oak Protection

Chapter 9.24 of the Tuolumne County Code regulates Premature Removal of Oak Trees. This chapter specifically states that projects with County ministerial permits are exempt from the provisions of the chapter.

3.0 METHODOLOGY

3.1 Literature Review

A list of special-status species with potential to occur within the Study Area was developed by conducting a query of the following databases:

- California Natural Diversity Database (CNDDDB) (CNDDDB 2021) query of the Study Areas and all areas within 5 miles of the Study Areas (**Figure 2**);
- USFWS Information for Planning and Conservation (IPaC) (USFWS 2021) query for the Study Area (**Attachment B**); and
- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2021) query of the "Standard, California" USGS topo quadrangle, and the eight surrounding quadrangles (**Attachment C**).

In addition, any special-status species that are known to occur in the region, but that were not identified in any of the above database searches were also analyzed for their potential to occur within the Project area.

For the purposes of this Biological Resources Assessment, special-status species is defined as those species that are:

- listed as threatened or endangered, or proposed or candidates for listing by the USFWS or National Marine Fisheries Service;
- listed as threatened or endangered and candidates for listing by CDFW;
- identified as Fully Protected species or species of special concern by CDFW;
- identified as Medium or High priority species by the WBWG (WBWG 2021); and
- plant species considered to be rare, threatened, or endangered in California by the CNPS and CDFW [California Rare Plant Rank (CRPR) 1, 2, and 3]:
 - CRPR 1A: Plants presumed extinct.

- CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
- CRPR 2A: Plants extirpated in California, but common elsewhere.
- CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
- CRPR 3: Plants about which the CNPS needs more information – a review list.

3.2 Field Surveys

Madrone Ecological Consulting, LLC (Madrone) biologists Daria Snider and Dustin Brown conducted field surveys of the Study Area concurrent with the surveys listed in Section 3.1. These surveys occurred on 9 April and 4 June 2021. During those surveys, the suitability of habitats on-site to support special-status species was assessed. Meandering pedestrian surveys were performed on foot throughout the Study Areas. Vegetation communities were classified in accordance with *The Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens 2009), and plant taxonomy was based on the nomenclature in the *Jepson eFlora* (Jepson Flora Project 2021).

In addition to the reconnaissance-level survey for wildlife species and habitat, Mr. Brown conducted an aquatic resources delineation in accordance with the U.S. Army Corps of Engineers (USACE) *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* and the USACE Sacramento District's *Minimum Standards for Acceptance of Preliminary Aquatic Resources Delineations*.

In addition to the reconnaissance-level survey for wildlife species and habitat, Ms. Snider conducted a protocol-level special-status plant survey and an inventory of all Specimen Oak trees within the Study Area. The special-status plant survey was conducted in accordance with the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000), the *Botanical Survey Guidelines of the California Native Plant Society* (CNPS 2001), and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). The Specimen Oak Tree Survey involved conducted a Certified Arborist (ISA Certification #WE-8666A) inventory of all native oak trees with a cumulative diameter at breast height (DBH) of 18" or greater. The only exception was a number of interior live oak (*Quercus wislizenii*) "trees" that had been cut many years ago, and had regrown in shrub form with numerous small stems.

4.0 EXISTING CONDITIONS

The Study Area is located within northwestern Tuolumne County approximately one mile east of downtown Sonora. Sonora Creek (perennial stream) flows from northeast to southwest through the northern portion of the Study Area (**Figure 3**). The Study Area is bounded to the west by Greenley Road, to the south by Cabezut Road, and to the east by Cedar Road. Tuolumne County government services offices are located immediately east of the Study Area. The northern portion of the Study Area is dominated by Sonora Creek and its associated riparian corridor. This riparian corridor as well as that adjacent to an intermittent tributary to the creek is comprised of Valley oak (*Quercus lobata*) woodland. The uppermost extent of this riparian corridor becomes much more open and has very few oaks, and is better characterized as Gooding's willow

(*Salix lasiolepis*) – red willow (*Salix laevigata*) riparian scrub. A riparian wetland occurs adjacent to the intermittent tributary within this willow woodland as well. An extensive Armenian blackberry (*Rubus armeniacus*) bramble occurs to the east of Sonora Creek's riparian corridor, as well as surrounding the riparian corridor along the intermittent tributary. A small interior live oak (*Quercus wislizenii*) woodland occurs on the terrace above where the intermittent tributary joins Sonora Creek. A small area in the northeastern portion of the Study Area is comprised of a paved parking lot, and a small detention basin occurs in the central eastern portion of the Study Area. The remainder of the Study Area is comprised of non-native annual grassland.

Topography within the Study Area generally slopes from east to west and elevations within the Study Area range from approximately 1,970 feet above mean sea level (MSL) to approximately 1,995 feet above MSL. Surrounding land uses consist of County government services offices and Cedar Road to the east, Sonora Creek and apartments to the north, Greenley Road and apartments to the west, and Cabezut Road and a church to the south.

4.1 Terrestrial Plant Communities

Three upland vegetation communities including Himalayan blackberry bramble, ruderal grassland and riparian woodland were documented within the Study Area. These vegetation communities and land cover types are described below.

4.1.1 Valley Oak Riparian Woodland

The Valley oak riparian woodland is comprised of very large, mature Valley oak (*Quercus lobata*), and red willow (*Salix laevigata*) trees. Large white alder (*Alnus rhombifolia*) and Fremont cottonwood (*Populus fremontii*) trees also occur with some frequency. The understory of the riparian woodland is dominated by Armenian blackberry, poison-oak (*Toxicodendron diversilobum*), and California grape (*Vitis californica*). The density of the shrub layer virtually precludes herbaceous species from occurring, scattered Douglas mugwort (*Artemisia douglasiana*) are found, and along the edges of the woodland, some species typical of the annual brome grassland (described below) are present.

4.1.2 Goodding's Willow - Red Willow Riparian Scrub

The Goodding's willow – red willow riparian scrub is distinctly different from the Valley oak riparian woodland in that this community is comprised almost entirely of shrubs as opposed to very large mature trees. In addition, very few Valley oaks are present, and Fremont's cottonwood and white alder are absent. This community is comprised of a matrix of Goodding's willow, red willow, and Armenian blackberry. The density of the shrub layer almost entirely precludes growth of any herbaceous vegetation.

4.1.3 Interior Live Oak Woodland

A small interior live oak woodland is present on a terrace or ridge above where the intermittent tributary enters Sonora Creek. This woodland is quite different from the Valley oak woodland, in that it is in a higher topographic position, there is little to no shrub layer in this community, and the tree layer is entirely comprised of cut and resprouted interior live oak trees. These trees appear to have been cut 10-15 years ago, and have since resprouted; as a result, each tree has ten or more trunks roughly 4-5 inches in diameter and has a shrub-like appearance.

4.1.4 Mixed Oak Woodland

A strip of oak trees along Greenley Road has been mapped as a mixed oak woodland. This area is comprised of Valley oaks, interior live oaks, and blue oaks (*Quercus douglassii*). This area is different from all of the other oak woodlands mapped on the site in that there is no shrub layer in this community; the understory is entirely comprised of herbaceous vegetation typical of the annual brome grassland.

4.1.5 Armenian Blackberry Bramble

Large portions of the Study Area, including the northern and central portions, are dominated by dense Armenian blackberry brambles. This vegetation community is almost a monoculture of Armenian blackberry, but contains scattered poison-oak, coyote brush (*Baccharis pilularis*), and blue elderberry (*Sambucus nigra* ssp. *cerulea*).

4.1.6 Annual Brome Grassland

The southern and central portions of the Study Area contain areas of annual brome grassland. This vegetation community is dominated by soft brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), perennial ryegrass (*Festuca perennis*), English plantain (*Plantago lanceolata*), and gumweed madia (*Madia gracilis*). Other species commonly occurring in these areas include cutleaf geranium (*Geranium dissectum*), broad-leaved filaree (*Erodium botrys*), bicolored lupine (*Lupinus bicolor*), wild hyacinth (*Triteleia hyacinthina*), common fiddleneck (*Amsinckia intermedia*), and elegant brodiaea (*Brodiaea elegans*). A number of perennial native grasses occur in this community as well, including creeping wildrye (*Elymus triticoides*), squirreltail grass (*Elymus multisetus*), small flowered melic (*Melica imperfecta*), Pine bluegrass (*Poa secunda*) and Great Basin wild rye (*Elymus glaucus*); however, they only occur in small localized areas and do not comprise a sufficient portion of the community to be mapped separately as perennial native grassland. Trees and shrubs species scattered within this community include interior live oak, blue oak (*Quercus douglasii*), coyote brush (*Baccharis pilularis*), foothill pine (*Pinus sabiniana*), California buckeye (*Aesculus californica*), and tree of heaven (*Ailanthus altissima*).

4.1.7 Developed

A portion of the Study Area is a paved parking lot with associated landscape trees.

4.2 Aquatic Resources

The aquatic resources within the Study Area (Figure 3) have been mapped in accordance with USACE protocols, and have been submitted to the USACE for verification. A total of 0.745 acre of aquatic resources were mapped within the Study Area (Table 1). A description of each of the aquatic resource types is included below.

Table 1. Potential Aquatic Resources Mapped within the Study Area

Resource Type		Acreage
<i>Wetlands</i>		
Riparian Wetland		0.068
Seasonal Wetland		0.028
<i>Other Waters</i>		
Perennial Creek (Sonora Creek)		0.419
Intermittent Drainage		0.230
Total		0.745

4.2.1 Sonora Creek (Perennial Creek)

A portion of Sonora Creek flows from northeast to southwest along the northern Study Area boundary. Sonora Creek is a moderate-gradient rocky creek with moderately incised banks and an established band of riparian vegetation. The bed of Sonora Creek is dominated by a cobble and boulder substrate and is generally scoured by swift flows. Flows within the creek appear to be very flashy based upon precipitation events. The creek was flowing during both the April and June field surveys. Sonora Creek shows up on the 7.5 minute-USGS map as a dashed blue line feature.

Plant species scattered along the banks of Sonora Creek include common knotweed (*Persicaria lapathifolia*), Baltic rush (*Juncus balticus*), broad-leaved cattail (*Typha latifolia*), hardstem bulrush (*Schoenoplectus acutus*), curly dock (*Rumex crispus*), common horsetail (*Equisetum arvense*), tall nutsedge (*Cyperus eragrostis*), and California mugwort (*Artemisia douglasiana*).

4.2.2 Intermittent Drainage

One intermittent drainage was mapped within the southern portion of the Study Area. This feature flows onto the Study Area from a culvert outfall along Cabezut Road and flows west into Sonora Creek. Water was flowing within this drainage at the time of the April 2021 survey, but had ceased by the June 2021 survey.

The bed of the intermittent drainage is mostly unvegetated and is comprised of a mix of cobble, sand, and gravel. The banks of this drainage are primarily vegetated with Armenian blackberry brambles, but some hydrophytes, such as tall nutsedge, occur in openings.

4.2.3 Seasonal Wetland

One seasonal wetland is located within the far eastern portion of the Study Area just west of Cedar Road. This manmade earthen feature appears to be a constructed storm water quality basin that functions to collect and treat stormwater runoff from the parking lots and roads to the north and east of the Study Area. Water enters the feature from the north through several small upland erosional rills. Maximum depth appears to be one to two feet and ponding of several inches was observed during the April 2021 survey; it was dry during the June 2021 survey. The northern portion of the wetland is mostly vegetated by grass and forb species such as Italian ryegrass, tall flatsedge, and curly dock while the southern portion of the wetland is dominated by Himalayan blackberry, Gooding's willow, and hardstem bulrush (*Schoenoplectus acutus*).

4.2.4 Riparian Wetland

One riparian wetland is located adjacent to the intermittent drainage and immediately west of Cedar Road within the southeastern portion of the Study Area. This wetland feature appears to receive seepage from the adjacent intermittent drainage and from the uplands to the east of the Study Area. No surface water was observed at the time of the April or June 2021 surveys. The riparian wetland is densely vegetated by broad-leaf cattail and Armenian blackberry.

4.3 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2021), two soil mapping units occur within the Study Area (**Figure 4**): (8110) Cumulic Humixerepts-Riverwash complex, 0 to 8 percent slopes and (9011) Urban land-Sierra-Flanly complex, 3 to 25 percent slopes. These units are loamy soils derived from igneous rocks such as granite and diorite. No heavy clay, gabbro, serpentine, or volcanic soils occur within the Study Area.

5.0 RESULTS

Table 2 provides a list of special-status species that were evaluated, including their listing status, habitat associations, and their potential to occur in the Study Area. The following set of criteria was used to determine each species' potential for occurrence on the site:

- Present: Species occurs on the site based on CNDDDB records, and/or was observed on the site during field surveys.
- High: The site is within the known range of the species and suitable habitat exists.
- Moderate: The site is within the known range of the species and very limited suitable habitat exists.
- Low: The site is within the known range of the species and there is marginally suitable habitat or the species was not observed during protocol-level surveys conducted on-site.
- Absent/No Habitat Present: The site does not contain suitable habitat for the species, the species was not observed during recent protocol-level floristic surveys conducted on-site, or the site is outside the known range of the species.

Table 2. Special-Status Species Potential for Occurrence within the Hidden Meadow Terrace Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Plants				
<i>Allium jepsonii</i> Jepson's onion	--	CRPR 1B.2	Prefers cismontane woodland or lower montane coniferous forests associated with serpentine soils or volcanic slopes from 985 - 4,330 ft.	No Habitat Present. No serpentine or volcanic soils are present.
<i>Allium tribracteatum</i> Three-bracted onion	--	CRPR 1B.2	Found in chaparral and montane coniferous forests on volcanic soils from 3,610 - 9,845 ft.	No Habitat Present. Outside of elevational range.
<i>Allium tuolumnense</i> Rawhide Hill onion	--	CRPR 1B.2	Found in cismontane woodland on serpentine soils between 985 - 1,970 ft.	No Habitat Present. No serpentine soils are present.
<i>Arctostaphylos nissenana</i> Nissenan manzanita	--	CRPR 1B.2	Found in rocky areas in chaparral and closed-cone coniferous forest from 1,475 - 3,610 ft.	No Habitat Present. No chaparral or closed-cone coniferous forests are present.
<i>Balsamorhiza macrolepis</i> Big-scale balsamroot	--	CRPR 1B.2	Occurs in chaparral, cismontane woodland, and valley and foothill grasslands between 150 and 5,100 ft. Often associated with serpentine soils.	Low. Woodlands and grasslands throughout the Study Area provide marginally suitable habitat; however, this species was not detected during protocol-level surveys in 2021.
<i>Brodiaea pallida</i> Chinese Camp brodiaea	FT	CE, CRPR 1B.1	Occurs in vernal streambeds, often on serpentine soils, in cismontane woodland and valley and foothill grassland from 540 - 1,265 ft.	No Habitat Present. Outside of elevational range.
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	--	CRPR 1B.2	Chaparral, cismontane woodland, and lower montane coniferous forests associated with Gabbro or serpentine soils at elevations between 800 feet and 5,500 feet.	No Habitat Present. Outside of the elevational range of the species.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Clarkia australis</i> Small's southern clarkia	--	CRPR 1B.2	Found in cismontane woodlands and lower montane coniferous forests between 2,625 and 6,810 ft.	No Habitat Present. Outside of elevational range.
<i>Clarkia biloba ssp. australis</i> Mariposa clarkia	--	CRPR 1B.2	Occurs in chaparral and cismontane woodland on serpentine soils between 985 and 4,790 ft.	No Habitat Present. No serpentine soils are present.
<i>Cryptantha mariposae</i> Mariposa cryptantha	--	CRPR 1B.3	Found in rocky areas of serpentine chaparral between 655 and 2,135 ft.	No Habitat Present. No serpentine soils are present.
<i>Cryptantha spithamea</i> Red Hills cryptantha	--	CRPR 1B.3	Occurs in serpentine soils in streambeds and openings in chaparral and cismontane woodland between 900 and 1,510 ft.	No Habitat Present. Outside of elevational range.
<i>Diplacus pulchellus</i> Yellow-lip pansy monkeyflower	--	CRPR 1B.2	Found in meadows and seeps and other vernal mesic areas on clay soils in lower montane coniferous forest between 1,970 and 6,560 ft. Favors disturbed areas.	No Habitat Present. Clay soils do not occur within the Study Area.
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	--	CRPR 1B.2	Found in vernal pools and other mesic areas in cismontane woodland and lower montane coniferous forests between 230 and 3,000 ft.	Low. Mesic areas in throughout the Study Area represent potential habitat for this species; however, this species was not detected during protocol-level surveys in 2021.
<i>Erythranthe acutidens</i> Kings River monkeyflower	--	CRPR 3	Found in cismontane woodlands and lower montane coniferous forests between 1,000 and 4,005 ft.	Low. Woodlands throughout the Study Area represent potential habitat for this species; however, this species was not detected during protocol-level surveys in 2021.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Erythranthe filicaulis</i> Slender-stemmed monkeyflower	--	CRPR 1B.2	Found in meadows and seeps and other vernal mesic areas in cismontane woodlands and montane coniferous forests between 2,955 and 5,740 ft.	No Habitat Present. Outside of elevational range.
<i>Erythranthe marmorata</i> Stanislaus monkeyflower	--	CRPR 1B.1	Found in cismontane woodlands and lower montane coniferous forests between 330 and 2,955 ft. Documented on volcanic table lands, carbonate gravels, and rocky seeps.	No Habitat Present. Documented habitats do not occur within the Study Area.
<i>Erythronium tuolumnense</i> Tuolumne fawn lily	--	CRPR 1B.2	Occurs in chaparral, broadleafed upland forest, cismontane woodland, and lower montane coniferous forest between 1,675 and 4,480 ft.	Low. Woodlands throughout the Study Area represent potential habitat for this species; however, this species was not detected during protocol-level surveys in 2021.
<i>Githopsis tenella</i> Delicate bluecup	--	CRPR 1B.3	Occurs in serpentine mesic areas of chaparral and cismontane woodland between 1,065 and 6,235 ft.	No Habitat Present. No serpentine soils are present.
<i>Horkelia parryi</i> Parry's horkelia	--	CRPR 1B.2	Occurs in chaparral and cismontane woodland on Lone Formation and other soils between 260 and 3,510 ft.	Low. Woodlands throughout the Study Area represent potential habitat for this species; however, this species was not detected during protocol-level surveys in 2021.
<i>Hosackia oblongifolia</i> var. <i>cuprea</i> Copper-flowered bird's-foot trefoil	--	CRPR 1B.3	Found on the edges of meadows and seeps and other mesic areas in upper montane coniferous forest between 7,875 and 9,025 ft.	No Habitat Present. Outside of elevational range.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Iris hartwegii</i> ssp. <i>columbiana</i> Tuolumne iris	--	CRPR 1B.2	Found in cismontane woodlands and lower montane coniferous forests between 1,395 and 4,595 ft.	Low. Woodlands throughout the Study Area represent potential habitat for this species; however, this species was not detected during protocol-level surveys in 2021.
<i>Lewisia kelloggii</i> ssp. <i>hutchisonii</i> Hutchison's lewisia	--	CRPR 3.2	Found on slate and rhyolite tuff in openings and on ridgetops in upper montane coniferous forest between 2,510 and 7,760 ft.	No Habitat Present. Outside of elevational range.
<i>Lomatium congdonii</i> Congdon's lomatium	--	CRPR 1B.2	Occurs in serpentine chaparral and cismontane woodland between 985 and 6,890 ft.	No Habitat Present. No serpentine soils are present.
<i>Lomatium stebbinsii</i> Stebbins' lomatium	--	CRPR 1B.1	Found in gravelly soils or volcanic clay in chaparral and lower montane coniferous forest between 4,085 and 7,790 ft.	No Habitat Present. Outside of elevational range.
<i>Lupinus spectabilis</i> Shaggyhair lupine	--	CRPR 1B.2	Occurs in serpentine chaparral and cismontane woodland between 855 and 2,705 ft.	No Habitat Present. No serpentine soils are present.
<i>Navarretia miwukensis</i> Mi-Wuk navarretia	--	CRPR 1B.2	Occurs in openings in lower montane coniferous forests between 2,625 and 4,920 ft.	No Habitat Present. Outside of elevational range.
<i>Navarretia paradoxiolara</i> Patterson's navarretia	--	CRPR 1B.3	Found in meadows and seeps, drainages, and other vernal mesic areas on serpentine soils between 490 and 1,410 ft.	No Habitat Present. Outside of elevational range.
<i>Packera layneae</i> Layne's ragwort	FT	CR, CRPR 1B.2	Foothill chaparral and cismontane woodland on serpentine or Gabbro soils between 655 and 3,560 ft.	No Habitat Present. No Gabbro or serpentine soils are present.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Senecio clelandii</i> var. <i>heterophyllus</i> Red Hills ragwort	--	CRPR 1B.2	Occurs in seeps in serpentine cismontane woodland between 855 and 1,265 ft.	No Habitat Present. Outside of elevational range.
<i>Verbena californica</i> Red Hills vervain	FT	CT, CRPR 1B.1	Occurs in seeps, creeks, and other mesic areas in serpentine cismontane woodland and valley and foothill grassland from 855 - 1,310 ft.	No Habitat Present. Outside of elevational range.
Invertebrates				
<i>Bombus crotchii</i> Crotch bumble bee	--	CC	Occurs in open grasslands and scrub habitats. This species occurs primarily in California including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (William et al 2014). This species was historically common in the Central Valley of California, but now appears to be absent from most of it, especially in the center of its historic range (Williams et al. 2014; Richardson et al 2014).	Low. The grasslands on-site are very small and isolated from other larger grasslands. Given this isolation, the site represents extremely marginal habitat for this species.
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT	--	Dependent upon elderberry plant as primary host species.	No Habitat Present. The Project Area is outside of the known range of the species.
Fish				
<i>Hypomesus transpacificus</i> Delta smelt	FT	CE	Adults are found in the brackish open surface waters of the Delta and Suisun Bay. Though spawning has never been observed, it is believed to occur in tidally influenced sloughs and drainages on the freshwater side of the mixing zone.	No Habitat Present. No tidally influenced sloughs or drainages are present within the Study Area.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Lavinia symmetricus ssp. 1</i> San Joaquin roach	--	CSC	This species is found in tributaries of the San Joaquin River from the Cosumnes River and south. Found in intermittent and perennial streams at mid-elevations in the foothills of the Sierra Nevada.	High. This species has been documented in Woods Creek, downstream of the Study Area in 1998, and the intermittent and perennial streams within the Study Area represent suitable habitat for the species.
Amphibians				
<i>Rana draytonii</i> California red-legged frog	FT	CSC	Breeds in permanent to semi-permanent aquatic habitats including lakes, ponds, marshes, creeks, and other drainages.	Low. The species has not been documented in the area in over 40 years, and the perennial creek on-site has minimal adjacent vegetation that could provide cover for this species. As such, the habitat is considered only marginally suitable.
<i>Rana boylei</i> Foothill yellow-legged frog	--	CE	Shallow tributaries and mainstems of perennial streams and rivers, typically associated with cobble or boulder substrate	No Habitat Present. Although there is a perennial creek with a cobble substrate on-site, this species is considered extirpated from the vicinity, and has not been documented in the vicinity in over 70 years.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Reptiles				
<i>Actinemys marmorata</i> Western pond turtle	--	CSC	Ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	Low. The drainages represent marginally suitable habitat for this species given the density of tree and shrub cover and resultant minimal basking habitat.
Birds				
<i>Strix nebulosa</i> Great gray owl	--	CE	Dense, coniferous forest, usually near a meadow for foraging; nests in large, broken-topped snags. Elevation range 4,500 to 7,500 feet.	No Habitat Present. The site is outside of the elevational range of the species.
<i>Agelaius tricolor</i> Tricolored blackbird	--	CE, CSC	Colonial nester in dense vegetation, such as cattails, bulrush, or blackberries associated with marsh habitats.	Low. The extensive Armenian blackberry thickets and small cattail patch within the Study Area represent marginally suitable nesting habitat for this species; given the lack of surrounding foraging habitat, tricolored blackbird is extremely unlikely to use the site.
<i>Elanus leucurus</i> White-tailed kite	--	CFP	Open grasslands, fields, and meadows are used for foraging. Isolated trees in close proximity to foraging habitat are used for perching and nesting.	No Habitat Present. Open grasslands are absent from the site - the majority of the site is dominated by trees and shrubs..

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Falco peregrinus anatum</i> American peregrine falcon	FD	CFP	Nests on cliff ledges, tall buildings, or other tall man-made structures near open areas for foraging.	No Habitat Present. Suitable breeding habitat and foraging habitat are absent.
<i>Haliaeetus leucocephalus</i> Bald eagle	FD	CE	Nest in large trees within 1 mile of lakes, rivers, or larger streams.	No Habitat Present. Suitable foraging habitat is absent and the site is greater than 1 mile from lakes, rivers, and large streams.
Mammals				
<i>Antrozous pallidus</i> Pallid bat	--	CSC, WBWG H	Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating Ponderosa pine and Valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings (WBWG 2021).	High. Suitable roosting habitat for this species is present in tree hollows and under exfoliating bark on trees throughout the site.
<i>Corynorhinus townsendii townsendii</i> Townsend's big-eared bat	--	CSC, WBWG H	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of trees. Extremely sensitive to human disturbance (WBWG 2021).	Low. No caves are present within the Study Area, and the only cave analogues that could occur would be large basal hollows of trees, which would represent marginally suitable habitat.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
<i>Euderma maculatum</i> Spotted bat	--	CSC, WBWG H	Spotted bats have been found from below sea level to 2700 m elevation, occurring from arid, low desert habitats to high elevation conifer forests. Prominent rock features appear to be a necessary feature for roosting. Roost sites are cracks, crevices, and caves, usually high in fractured rock cliffs (WBWG 2021).	No Habitat Present. Although a few small rock outcrops are present, prominent rock features do not occur within the Study Area.

Status Codes:

CE - CDFW Endangered

CFP - CDFW Fully Protected

CR - CDFW Rare

CRPR - California Rare Plant Rank

CSC - CDFW Species of Concern

CT - CDFW Threatened

FD - Federally Delisted

FT - Federally Threatened

WBWG M - Western Bat Working Group Medium Threat Rank

WBWG H - Western Bat Working Group High Threat Rank

Figure 2 is an exhibit displaying CNDDDB occurrences within five miles of the Study Area. Below is a discussion of all special-status plant and animal species with potential to occur on the site.

5.1 Plants

5.1.1 Big-Scale Balsamroot

Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. It is a perennial herbaceous species that occurs in chaparral, cismontane woodland and valley and foothill grasslands between 295 and 4,600 feet (CNPS 2021). Big-scale balsamroot blooms from March through June and may be found on serpentine soils, though it is known to grow on other soil types as well (CNPS 2021).

The annual brome grasslands and woodlands throughout the Study Area represent suitable habitat for this species. One occurrence of big-scale balsamroot has been documented within five miles of the Study Area in the CNDDDB (CNDDDB Occurrence #42). This occurrence was documented in 1925 in "Sonora". Given the vague location information, the polygon for this occurrence in the CNDDDB is a circle with a radius of one mile. This large polygon overlaps the Study Area, but the occurrence almost certainly did not occur within the Study Area. This species was not observed during the 2021 protocol-level special status plant survey of the site.

5.1.2 Tuolumne Button-Celery

Tuolumne button-celery (*Eryngium pinnatisectum*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. This species occurs in mesic areas in cismontane woodlands and coniferous forests, as well as vernal pools (CNPS 2021). Tuolumne button-celery blooms from May through August, and is found from approximately 300 feet to 3,000 feet (CNPS 2021).

The seasonal wetland, riparian wetland, and drainages throughout the Study Area provide suitable habitat for this species. Four occurrences of Tuolumne button-celery have been documented within five miles of the Study Area in the CNDDDB, the nearest of which (CNDDDB Occurrence #7), is located approximately 3.5 miles southwest of the Study Area in Rawhide Flat. This occurrence was documented in 1983 in serpentine vernal pools. This species was not observed during the 2021 protocol-level special status plant survey of the site.

5.1.3 King's River Monkeyflower

Kings River monkeyflower (*Erythranthe acutidens*) is not a state or federally-listed species; however, it is categorized as a CRPR List 3 plant. This annual herb of the Phrymaceae family generally occurs at elevations ranging from 1,000 to 4,005 feet in cismontane woodlands and lower montane coniferous forests. This California endemic typically blooms from April to July.

The woodlands throughout the Study Area provide suitable habitat for this species. There are no occurrences of Kings River monkeyflower within five miles of the Study Area in the CNDDDB (CNDDDB 2021). This species was not observed during the 2021 protocol-level special status plant survey of the site.

5.1.4 Tuolumne Fawn Lily

Tuolumne fawn lily (*Erythronium tuolumnense*) is classified as a CRPR 1B.2 plant. This perennial bulbiferous herb is known from a variety of habitats including broad-leafed upland forests, foothill chaparral, cismontane woodlands, and lower montane coniferous forests. It generally occurs at elevations ranging from 1,675 to 4,480 feet. Tuolumne fawn lily is a California endemic that usually blooms from March to June.

The woodlands throughout the Study Area provide suitable habitat for this species. There are three occurrences of Tuolumne fawn lily within five miles of the Study Area in the CNDDDB (CNDDDB 2021). The nearest of these (CNDDDB Occurrence #15) was documented roughly 2.25 miles south east of the Study Area in 1922. This species was not observed during the 2021 protocol-level special status plant survey of the site.

5.1.5 Parry's Horkelia

Parry's horkelia (*Horkelia parryi*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. Parry's horkelia occurs in chaparral and cismontane woodland on lone Formation and other soils (CNPS 2016). This perennial blooms from April through September and is found from approximately 250 to 3,500 feet (CNPS 2016).

The woodlands throughout the Study Area provide suitable habitat for this species. There are no occurrences of Parry's horkelia within five miles of the Study Area in the CNDDDB (CNDDDB 2021). This species was not observed during the 2021 protocol-level special status plant survey of the site.

5.1.6 Tuolumne Iris

Tuolumne iris (*Iris hartwegii* ssp. *columbiana*) is listed as a CRPR 1B.2 plant by the CNPS. This perennial rhizomatous herb generally occurs on dry slopes in cismontane woodlands and lower montane coniferous forests at elevations ranging from 1,395 to 4,595 feet. Tuolumne iris is a California native monocot and usually blooms from May to June.

The woodlands throughout the Study Area provide suitable habitat for this species. There are no occurrences of Tuolumne iris within five miles of the Study Area in the CNDDDB (CNDDDB 2021). This species was not observed during the 2021 protocol-level special status plant survey of the site.

5.2 Invertebrates

5.2.1 Crotch Bumble Bee

Crotch bumble bee (*Bombus crotchii*) has a limited distribution in southwestern North America. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, West Desert, Great Valley, and adjacent foothills through most of southwestern California. It also occurs in Mexico (Baja California and Baja California Sur) (Williams et al. 2014) and has been documented in southwest Nevada, near the California border.

In California, *B. crotchii* inhabits open grasslands and scrub habitats. This species occurs primarily in California including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (William et al 2014).

The annual grasslands within the Study Area provide substantial floral diversity, but the patches are relatively small and isolated from other larger patches. As such, although habitat for Crotch's bumblebee is present within the Study Area, it is extremely marginal. There is one documented occurrence of this species within five miles of the Study Area (CNDDDB Occurrence #20) located approximately 2.75 miles southwest of the Study Area in "Jamestown" (CNDDDB 2021). This occurrence was documented in 1919 and the exact location is unknown. No Crotch's bumblebees were observed during reconnaissance-level surveys of the Study Area.

5.3 Fish

5.3.1 San Joaquin Roach

San Joaquin roach (*Lavinia symmetricus* ssp. 1) is a small fish classified by CDFW as a species of special concern. Current taxonomy considers it to be a population of the Sacramento-San Joaquin roach (*Lavinia symmetricus symmetricus*) (CNDDDB 2021). Generally less than 4 inches in length, the San Joaquin roach is a member of the cyprinid family, which is that of minnows and carp. The body is generally elongate and round in cross section. It possesses a relatively large conical head, small mouth, and it primarily feeds on filamentous algae, but are also known to prey on aquatic invertebrates as well as larval lampreys.

The species is generally found in small, warm, intermittent and perennial drainages with denser populations concentrated in isolated pools. They are most common in mid-elevation streams of the southern Sierra foothills and lower reaches of the Coastal foothills. Reproduction occurs from March to June, but commonly extends into late July. Schools congregate in shallow reaches with moderate flows and gravel/rubble substrates where spawning occurs (Moyle, P.B, Yoshiyama, R.M., et. al. 1995).

The perennial and intermittent drainages within the Study Area represent suitable habitat for San Joaquin roach. The CNDDDB currently only contains eight records of the San Joaquin roach, all of which are dated between November 1998 and June of 1999 (CNDDDB 2021). Of these eight records, four occur within five miles of the Study Area. CNDDDB Occurrence #3 is located approximately four miles to the southwest, and

is downstream of the Study Area on Woods Creek (CNDDDB 2021). No San Joaquin roach were observed within the Study Area during the reconnaissance-level surveys.

5.4 Amphibians

5.4.1 California Red-legged Frog

The California red-legged frog (*Rana draytonii*) (CRLF) was listed as threatened by USFWS on May 23, 1996 (Federal Register Vol. 61, No. 101:25813) and is a CDFW species of special concern. Critical habitat was designated pursuant to the ESA across $\pm 1,636,609$ acres in 27 counties including Alameda, Butte, Calaveras, Contra Costa, El Dorado, Marin, Napa, Nevada, Placer, Solano, and Yuba counties.

CRLF is the largest native frog in the western United States, ranging from 1.5 to 5 inches in length. Their historic range extends through Pacific slope drainages and parts of the Central Valley from Shasta County, California, to Baja, Mexico. This area includes the Coast Ranges and the west slope of the Sierra Nevada at elevations below 1,548 m (5,000 feet). The current range is greatly reduced, with most remaining populations occurring along the coast from Marin County to Ventura County and in isolated locations in the foothills of the western slope of the Sierra Nevada (Fellers 2005; Barry and Fellers 2013).

CRLF occur in different habitats depending on life stage, season, and weather conditions. Breeding habitat includes coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, and ponded and backwater portions of streams. California red-legged frogs also breed in artificial impoundments including stock ponds, irrigation ponds, and siltation ponds. Creeks and ponds with dense growths of woody riparian vegetation, especially willows (*Salix* spp.) are used disproportionately (Hayes and Jennings 1988). The absence of vegetation at an aquatic site does not rule out the possibility of occupancy. Adult CRLF are most often found in areas of dense, shrubby or emergent riparian vegetation near deep [$\geq 0.6 - 0.9$ m (2 - 3 feet)], still or slow-moving water, especially where dense stands of overhanging willow and an intermixed fringe of cattail (*Typha* sp.) occur adjacent to open water. CRLF breed from November through April (Jennings and Hayes 1994), and larvae generally metamorphose by mid to late summer.

Upland and riparian areas provide important habitat during summer when CRLF are known to aestivate in dense vegetation, burrows and leaf litter. CRLF often disperse from breeding habitats to forage and seek upland refugia and are often found within close proximity to a pond or deep pool in a creek where emergent vegetation, undercut banks, or semi-submerged rootballs afford shelter (USFWS 2005). The diet of CRLF is highly variable. Larvae probably graze on algae, whereas invertebrates are the most common food items of adult frogs. Vertebrates, such as Sierra chorus frogs (*Pseudacris sierra*) and California mice (*Peromyscus californicus*) are frequently eaten by larger frogs. Juvenile frogs are active both during the day and at night, whereas adult frogs are largely nocturnal.

The intermittent drainage and perennial creek do not represent potential breeding habitat for the species, though they do represent marginally suitable aquatic dispersal habitat, given the only sparse adjacent emergent vegetation. The adjacent riparian woodlands and grasslands within 200 feet of the drainages

could provide upland dispersal habitat for California red-legged frog during the wet season. The vast majority of the Study Area is within 200 feet of the drainages; therefore all upland habitats within the Study Area are considered potential low-quality upland dispersal habitat for California red-legged frog. There are no recently recorded occurrences of the species in the vicinity of the Study Area, though there are two documented occurrences of CRLF within five miles of the Study Area in the CNDDDB, the nearest of which (CNDDDB Occurrence #571) is located less than one mile to the west and downstream of the Study Area along Woods Creek (CNDDDB 2021). This occurrence was documented in 1950. Barry and Fellers (2013) recently surveyed the region for CRLF; while they did not detect any individuals, they did determine that suitable habitat is still present in the surrounding area. No CRLF were observed within the Study Area during reconnaissance-level surveys.

5.5 Reptiles

5.5.1 Western Pond Turtle

The western pond turtle (*Emys marmorata*) is not federally or state listed but is a CDFW species of special concern. Its favored habitats include streams, large rivers and canals with slow-moving water, aquatic vegetation, and open basking sites (Jennings and Hayes 1994). Although the turtles must live near water, they can tolerate drought by burrowing into the muddy beds of dried drainages. This species feeds mainly on invertebrates such as insects and worms, but will also consume small fish, frogs, mammals and some plants. Western pond turtle predators include raccoons, coyotes, raptors, weasels, large fish, and bullfrogs. This species breeds from mid to late spring in adjacent open grasslands or sandy banks (Jennings and Hayes 1994).

The intermittent and perennial creeks represent marginally suitable aquatic habitat, given the relatively shallow depth of the features, and the dense tree and shrub cover, which reduce the quality of adjacent basking habitat. The adjacent riparian woodlands could provide upland habitat for western pond turtle. There are no documented occurrences of western pond turtle within five miles of the Study Area in the CNDDDB (CNDDDB 2021). No western pond turtles were observed during reconnaissance-level surveys of the Study Area.

5.6 Birds

5.6.1 Tricolored Blackbird

Tricolored blackbirds (*Agelaius tricolor*) are not federally listed but are state listed as threatened. In addition, tricolored blackbird is listed by CDFW as a species of special concern. They are colonial nesters preferring to nest in dense stands of cattails, bulrush, or blackberry thickets associated with perennial water (Shuford and Gardali 2008). Most tricolored blackbirds forage within 3.1 miles of their colony sites (Shuford and Gardali 2008). Proximity to suitable foraging habitat appears to be extremely important for the establishment of colony sites, as tricolored blackbirds usually forage, at least initially, in the field containing the colony site (Shuford and Gardali 2008).

The extensive Armenian blackberry thickets and small cattail patch within the Study Area represent marginally suitable nesting habitat for this species. The adjacent grasslands are relatively small patches and isolated from higher quality foraging habitat; as such, tricolored blackbird is extremely unlikely to use the site.

One occurrence of nesting tricolored blackbird has been documented in the CNDDDB within five miles of the Study Area. Occurrence #192 is located approximately 2.5 miles northeast of the Study Area, just northwest of Phoenix Reservoir (CNDDDB 2021). This nesting location was last documented occupied by a tricolored blackbird colony in 2002; surveys of the location in 2014 were negative. As this location has not been utilized by tricolored blackbirds in more than 10 years, this is not currently considered an active nesting location. No tricolored blackbirds were observed during reconnaissance-level surveys of the Study Area.

5.7 Mammals

5.7.1 Pallid Bat

Pallid bat (*Antrozous pallidus*) is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the WBWG as a High priority species. It favors roosting sites in crevices in rock outcrops, caves, abandoned mines, hollow trees, and human-made structures such as barns, attics, and sheds (WBWG 2021). Though pallid bats are gregarious, they tend to group in smaller colonies of 10 to 100 individuals. It is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which it seizes after landing (WBWG 2021).

Tree hollows and exfoliating bark on trees throughout the Study Area represent suitable roosting habitat for pallid bat. One occurrence of pallid bat has been documented in the CNDDDB within five miles of the Study Area. Occurrence #306 was documented in 1991, and is located approximately 3.75 miles southwest of the Study Area at the Jamestown Mine (CNDDDB 2021). No pallid bats were observed during reconnaissance-level surveys of the Study Area.

5.7.2 Townsend's Big-Eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is not listed pursuant to either the federal or California Endangered Species Acts; however, this species is considered a species of special concern by CDFW. Townsend's big-eared bat is a fairly large bat with prominent bilateral nose lumps and large rabbit-like ears. This species occurs throughout the west and ranges from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains. This species has been reported from a wide variety of habitat types and elevations from sea level to 10,827 feet. Habitats used include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Its distribution is strongly associated with the availability of caves and cave-like roosting habitat including abandoned mines, buildings, bridges, rock crevices, and hollow trees. This species is readily detectable when roosting due to their habit of roosting pendant-like on

open surfaces. Townsend's big-eared bat is a moth specialist with over 90 percent of its diet composed of Lepidopterans. Foraging habitat is generally edge habitats along streams adjacent to and within a variety of wooded habitats. This species often travels long distances when foraging and large home ranges have been documented in California (WBWG 2021).

Large hollows in trees throughout the Study Area represent marginally suitable roosting habitat for Townsend's big-eared bat. One occurrence of Townsend's big-eared bat has been documented in the CNDDDB within five miles of the Study Area. Occurrence #412 was documented in 2005, and is located approximately 2.75 miles southwest of the Study Area in the vicinity of Jamestown (CNDDDB 2021). No Townsend's big-eared bats were observed during reconnaissance-level surveys of the Study Area.

6.0 IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

This section details potential impacts to the sensitive biological resources discussed above associated with construction of the Project, as discussed in **Section 1.1**.

6.1 Aquatic Resources

The Conceptual Site Plan (Attachment A) avoids impacts to all aquatic resources within the Study Area; therefore, no aquatic resources impacts are anticipated to occur as a result of Project implementation (**Figure 6**). There is one planned crossing of the intermittent drainage, which is planned to span the drainage entirely and not result in any impacts or fill.

6.2 Special-Status Plant Species

The vegetation communities proposed for impact represent suitable habitat for big-scale balsamroot, Tuolumne button-celery, King's River monkeyflower, Tuolumne fawn lily, Parry's horkelia, and Tuolumne iris, but protocol-level special-status plant surveys were conducted throughout the Study Area in 2021 with negative results. Therefore, these species are considered to be currently absent from the Study Areas; however, plant species can become established in new locations given enough time. In accordance with USFWS protocols, which recommend resurvey after three years (USFWS 2000), we would recommend that additional special-status plant surveys be conducted prior to construction if construction does not commence by 1 April 2023 to confirm absence of (and no impact to) these species.

6.3 Crotch Bumblebee

A total of 0.89 acre of annual grassland that represents marginally suitable habitat for Crotch bumblebee will be impacted during implementation of the Project.

6.4 San Joaquin Roach

San Joaquin roach is exclusively aquatic; as no impacts are proposed to the intermittent or perennial drainages, San Joaquin roach is not expected to be impacted by Project implementation.

6.5 California Red-legged Frog

California red-legged frog aquatic dispersal habitat (the intermittent and perennial drainages) is not expected to be impacted by Project implementation. However, 5.5 acres of adjacent woodlands, blackberry bramble and annual grasslands within the Study Area that represent potential upland dispersal habitat for California red-legged frog will be impacted. Although the likelihood of California red-legged frog occurring within this area is very low, if individual frogs were present during project construction, they could be killed.

6.6 Western Pond Turtle

Western pond turtle aquatic habitat (the intermittent and perennial drainages) is not expected to be impacted by Project implementation. However, adjacent habitats could provide nesting habitat for this species. If individual turtles or their nests were present during project construction, they could be injured or killed.

6.7 Nesting Raptors and Songbirds

Tricolored blackbird has the potential to nest within the Study Area, as do other more common bird species protected by the MBTA. If they were nesting on-site, removal of the nests would impact these species. Furthermore, birds nesting in avoided areas adjacent to construction could be disturbed by construction, which could result in nest abandonment.

6.8 Roosting Bats

Trees throughout the Study Area are habitat for pallid bat and Townsend's big-eared bat. If these bats were roosting in trees to be removed by Project construction, they could be injured or killed during the removal.

6.9 Oak Woodlands

Of the 2.47 acres of oak woodlands mapped within the Study Area, a total of 1.47 acres of oak woodlands will be impacted by implementation of the Project as proposed. As detailed in **Table 4** below, the relatively low quality interior live oak woodland will be almost entirely impacted, and the majority of the mixed oak woodland with an annual grassland understory will be impacted, but the relatively high-quality Valley oak woodland was prioritized for preservation.

Table 3. Oak Woodland Impacts and Avoidance

Vegetation Community	Impacts (acres)	Avoidance (acres)	Total (acres)¹
Interior Live Oak Woodland	0.64 (96%)	0.03 (4%)	0.67
Mixed Oak Woodland	0.26 (81%)	0.06 (19%)	0.32
Valley Oak Woodland	0.57 (27%)	1.51 (73%)	2.08
Total	1.47 (48%)	1.60 (52%)	3.07

¹ Rounding results in small summation errors

7.0 MITIGATION FOR IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

The following are suggested mitigation measures for impacts to sensitive biological resources that may be associated with construction of the Project.

7.1 Riparian Vegetation

Although no impacts to drainages are proposed as part of the Project, riparian vegetation will be impacted, which CDFW asserts regulatory control over. The applicant shall apply for a Section 1600 Lake or Streambed Alteration Agreement from CDFW in order to determine if an LSAA is required. If so, the LSAA would authorize these impacts. Impacts will be outlined in the application and are expected to be substantially similar to the impacts to biological resources outlined in this document. Minimization and avoidance measures will be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to CDFW.

7.2 Special-Status Plant Species

Special-status plant surveys conducted throughout the Study Area in 2021 were negative within the proposed impact area, but given enough time, plants may become established in areas where suitable habitat exists. In accordance with USFWS protocols, which recommend resurvey after three years (USFWS 2000), we recommend special-status plant surveys be conducted in areas proposed for impact no more than three years prior to commencement of construction. If construction commences prior to 1 April 2024, these surveys will not be required. Surveys shall be conducted in accordance with the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000), the *Botanical Survey Guidelines of the California Native Plant Society* (CNPS 2001), and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018) or more recent protocols at that time. If no special-status plant species are found, no further mitigation would be required. If special-status plants are found and will be impacted, mitigation for those impacts will be determined during consultation with the County. If the plant found is a perennial such as big-scale balsamroot or Tuolumne iris, then mitigation will consist of digging up the plant and transplanting into a suitable avoided area on-site prior to construction. If the plant found is an annual such as Kings River

monkeyflower, then mitigation will consist of collecting seed-bearing soil and spreading into a suitable avoided area on-site prior to construction.

7.3 Crotch Bumble Bee

The Project will impact potential foraging and nesting/overwintering habitat for the Crotch bumble bee. To avoid take of this species the Project proponent shall do the following:

- Within 14 days prior to construction, a qualified biologist shall conduct a take avoidance survey for active bumble bee colony nesting sites. In order to maximize detection of active bee colonies, the take avoidance survey shall be conducted during the spring, summer, or fall during appropriate weather (not during cool overcast, rainy, or windy days). The biologist shall walk the entire area proposed for grading and inspect all rodent burrows for bumble bee activity. If any bumble bees are detected during the survey, they shall be identified to species.
- Any active colonies of Crotch bumble bee or western bumble bee shall be avoided and no work shall occur within 50-feet of the colony. If the colony is in a location proposed for development, consultation with CDFW will be necessary and an Incidental Take Permit from CDFW may be required prior to disturbance.

7.4 California Red Legged Frog

A pre-construction survey for California red-legged frog shall be conducted by a qualified biologist prior to construction. The pre-construction survey shall include the development footprint, and exclusion fencing shall be installed around the perimeter of the work area following the survey to preclude CRLF from entering the work area. Exclusion fencing may consist of silt fencing, or other similar fencing that would preclude CRLF passage. To the extent possible, initial ground disturbance should not occur during the wet season (approximately November through April), when CRLF would be most likely to utilize dispersal corridors.

7.5 Western Pond Turtle

A western pond turtle survey shall be conducted in all areas within 150 feet of the intermittent and perennial drainages within 48 hours prior to construction in that area. If no western pond turtles or nests are found, no further mitigation is necessary. If a western pond turtle is observed within the proposed impact area, a qualified biologist shall relocate the individual to suitable habitat outside of the proposed impact area prior to construction. If a western pond turtle nest is observed within the proposed impact area, the nest shall be fenced off and avoided until the eggs hatch. The exclusion fencing shall be placed no less than 25 feet from the nest. A qualified biologist shall monitor the nest daily during construction to ensure that hatchlings do not disperse into the construction area. Relocation of hatchlings will occur as stipulated above, if necessary.

7.6 Nesting Raptors and Other Birds

The following nest survey requirements apply if construction activities take place during the typical bird breeding/nesting season (typically February 1 through September 1).

A pre-construction nesting bird survey shall be conducted by a qualified biologist throughout the Project Area and all accessible areas within a 250-foot radius of proposed construction areas, no more than 14 days prior to the initiation of construction. If there is a break in construction activity of more than 14 days, then subsequent surveys shall be conducted.

If an active raptor nest or a tricolored blackbird nesting colony are found, no construction activities shall take place within 500 feet of the nest/colony until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer will be established. These no-disturbance buffers may be reduced if a smaller buffer is proposed by the Project Biologist and approved by the County (and CDFW if it is a tricolored blackbird nesting colony) after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (are there visual or acoustic barriers between the proposed activity and the nest). The Project Biologist can 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.

A report summarizing the survey(s), shall be provided to the County within 14 days of the completed survey and is valid for one construction season or until there is a gap in construction activity of 14 days or more. If no nests are found, no further mitigation is required.

Should construction activities cause a nesting bird do any of the following in a way that would be considered a result of construction activities: vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop this agitated behavior. The exclusionary buffer will remain in place until the chicks have fledged or as otherwise determined by the Project Biologist in consultation with the County.

Construction activities may only resume within the buffer zone after a follow-up survey by the Project Biologist has been conducted and a report has been prepared indicating that the nest (or nests) are no longer active, and that no new nests have been identified.

7.7 Roosting Bats

Pre-construction roosting bat surveys shall be conducted by a qualified biologist within 14 days prior to any tree removal that will occur during the breeding season (April through August). If pre-construction surveys indicate that no roosts of special-status bats are present, or that roosts are inactive or potential habitat is unoccupied, no further mitigation is required. If roosting bats are found, exclusion shall be conducted as recommended by the qualified biologist. Methods may include acoustic monitoring, evening emergence surveys, and the utilization of two-step tree removal supervised by the qualified biologist. Two-step tree

removal involves removal of all branches that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree. Once the bats have been excluded from buildings or allowed to fly off from trees and roost elsewhere, the tree removal may occur.

7.8 Oak Woodlands

We recommend that the Project applicant contribute to the Tuolumne Oak Woodland Conservation Fund using the following formula:

$$\text{Fee} = 1.0 \times \text{Acres of Impacted Oak Woodland} \times \text{Current Land Value}$$

The "Current Land Value" shall be determined by the County. The most recent value determined by the County was \$6,000. Given the 1.47 acres of oak woodland that will be impacted based on the current conceptual site plan, the contribution to the Tuolumne Oak Woodland Conservation Fund would be $1.47 \times \$6,000 = \$8,820$.

7.9 Protection of Oak Trees During and After Construction Activities

For all oak trees that will be retained, including those within 25 feet of any development activity, the following protective measures shall be implemented prior to any construction activities:

- A. Brightly colored construction fencing (mesh or silt) shall be placed around the outermost edge of the dripline of each tree or group of protected trees on the sides facing the construction.
- B. No construction activities shall be conducted within this area, including but not limited to:
 1. Storage of any equipment
 2. Parking or storage of any vehicles
 3. Dumping of any trash, soils, fuels, or liquids
- C. The construction fencing shall remain in place until all construction activities are completed.
- D. The existing grade shall be maintained around protected trees to the maximum extent possible.

7.10 Worker Environmental Awareness Training

Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training (WEAT) shall be prepared and administered to the construction crews. The WEAT will include the following: discussion of the state and federal Endangered Species Act, the Clean Water Act, the Porter-Cologne Act and Waste Discharge Requirements, the Project's permits (if any) and CEQA documentation, and associated mitigation measures; consequences and penalties for violation or noncompliance with these laws and regulations; identification of special-status wildlife, location of any avoided Waters of the U.S; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status wildlife species. The WEAT will also discuss the different habitats used by the species' different life stages and the annual timing of these life stages. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT training, workers will sign a form stating that they attended the training, understand the

information presented and will comply with the regulations discussed. Workers will be shown designated “avoidance areas” during the WEAT training; worker access should be restricted to outside of those areas to minimize the potential for inadvertent environmental impacts. Fencing and signage around the boundary of avoidance areas may be helpful.

8.0 REFERENCES

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Figures

Figure 1. Vicinity Map

Figure 2. California Natural Diversity Database Occurrences of Plant and Wildlife Species

Figure 3. Vegetation Communities and Aquatic Resources

Figure 4. NRCS Soils Map

Figure 5. Oak Resources

Figure 6. Vegetation Community, Aquatic Resources, and Oak Resources Impacts

Figure 7. Potential California Red-legged Frog Upland Habitat

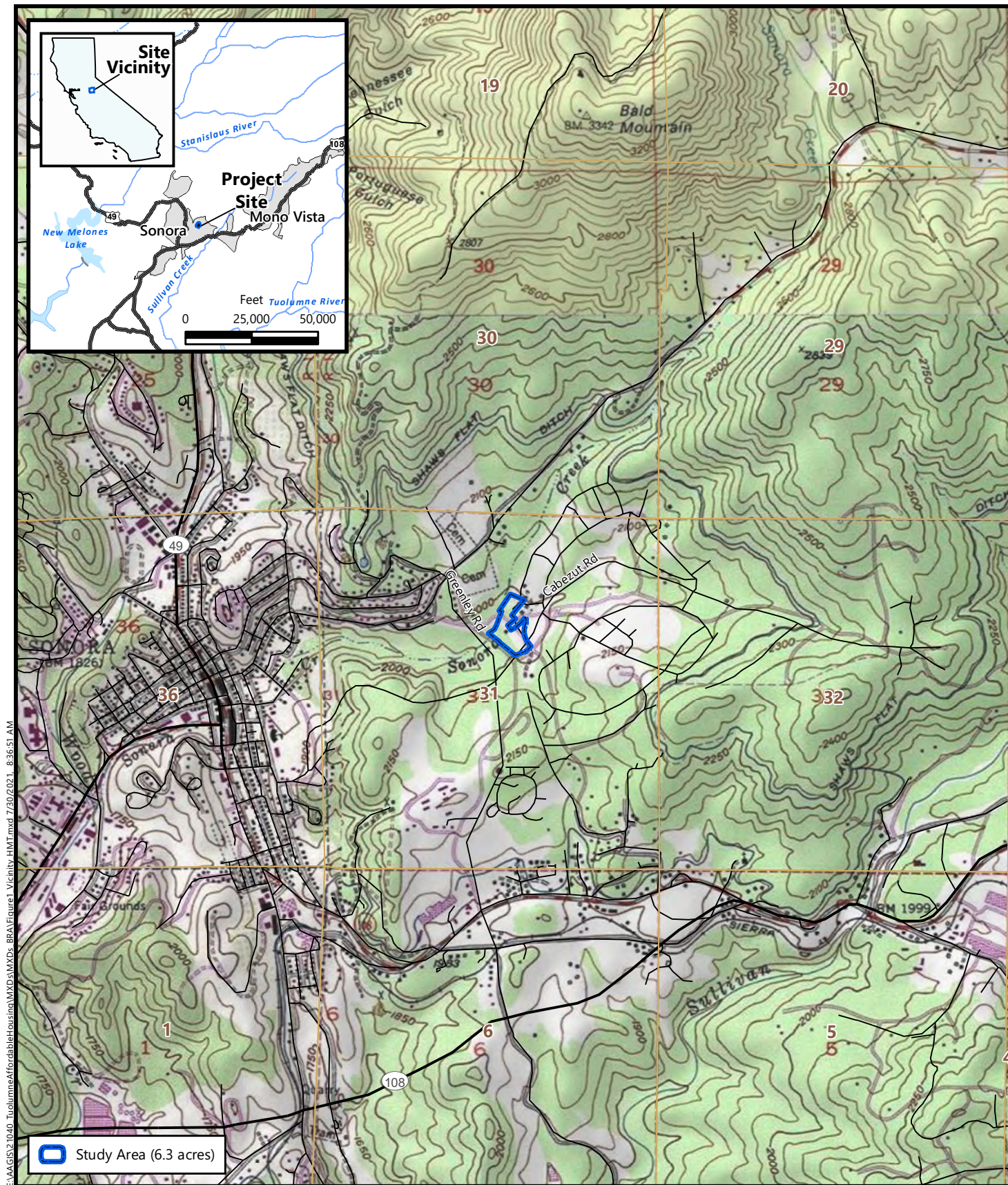


Figure 1
Vicinity

Source: United States Geologic Survey, 1987
 Sections 31, Township 2 North, Range 15 East, MDB&M
 "Standard, California" 7.5-Minute Topographic Quadrangle
 Longitude -120.367184, Latitude 37.986441

Hidden Meadow Terrace
 Tuolumne County, California



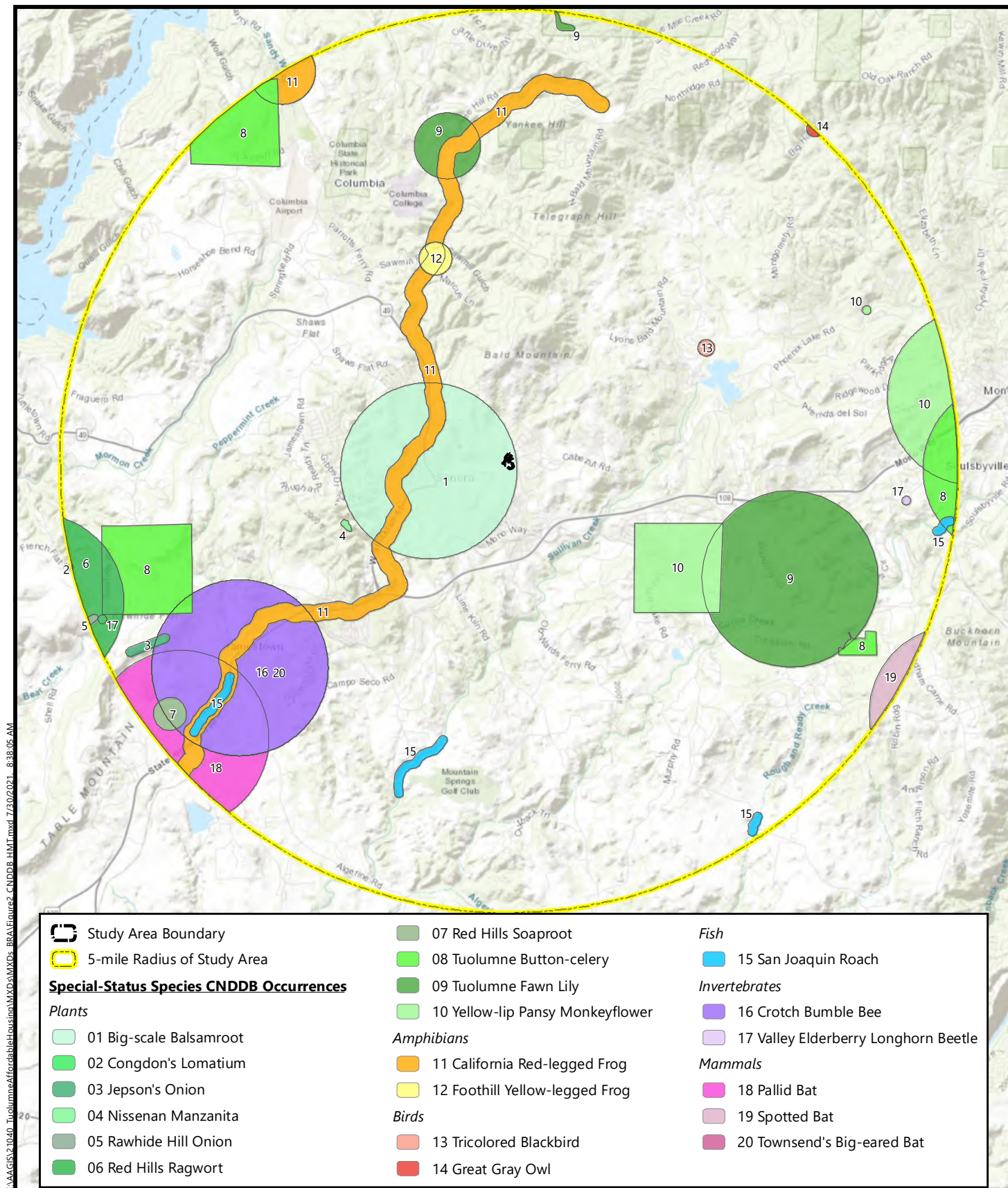
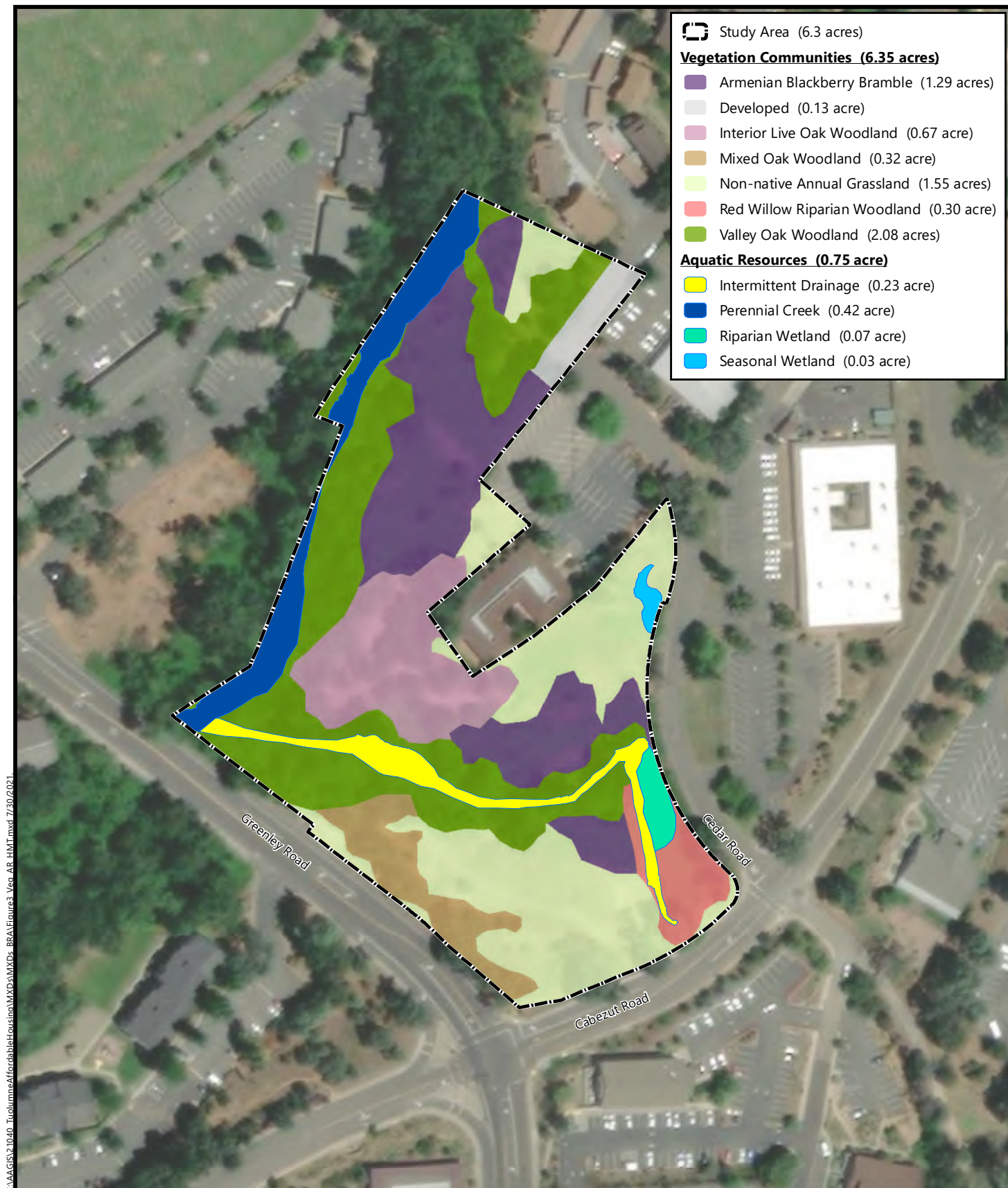


Figure 2
California Natural Diversity Database
Occurrences of Special-Status Species

Data Source: California Department of Fish and Wildlife, July 2021
 Basemap Source: ESRI World Topographic Map

Hidden Meadow Terrace
 Tuolumne County, California





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Figure 3
Vegetation Communities and
Aquatic Resources

Aerial Source: Maxar Vivid GE01, 23 June 2019

Hidden Meadow Terrace
 Tuolumne County, California





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Soil Survey Source: *USDA, Soil Conservation Service.*
 Soil Survey Geographic (SSURGO) database for Central Sierra Foothills
 Area, California, Parts of Calaveras and Tuolumne Counties (CA630)
 Aerial Source: Maxar Vivid GE01, 23 June 2019

Figure 4
NRCS Soils Map

Hidden Meadow Terrace
Tuolumne County, California





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Figure 5
Oak Resources

Aerial Source: Maxar Vivid GE01, 23 June 2019

Hidden Meadow Terrace
Tuolumne County, California



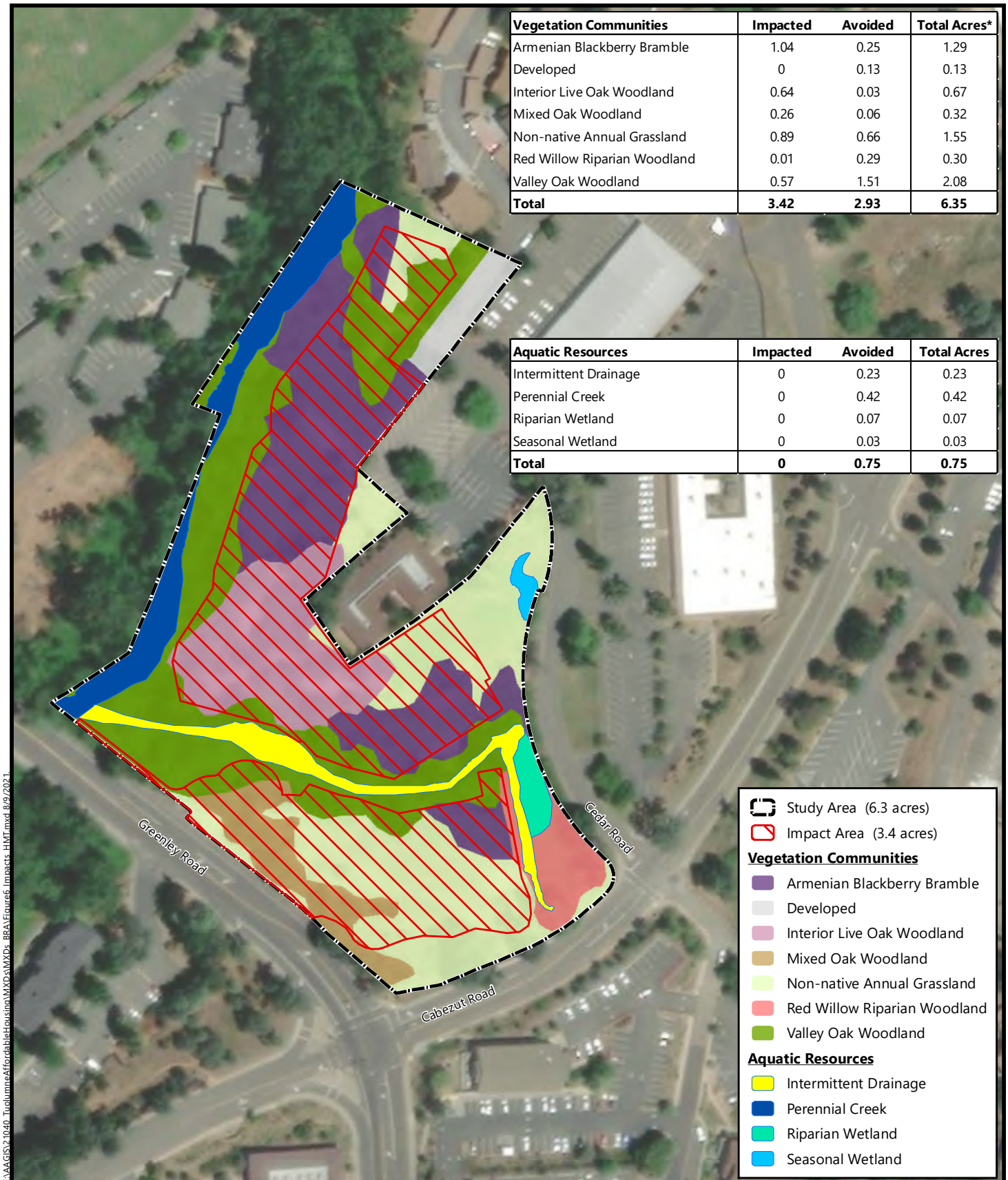
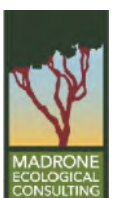


Figure 6
Vegetation Community, Aquatic Resources,
and Oak Resources Impacts

*Rounding may result in small summation errors
Aerial Source: Maxar Vivid GE01, 23 June 2019

Hidden Meadow Terrace
Tuolumne County, California



Study Area (6.3 acres)

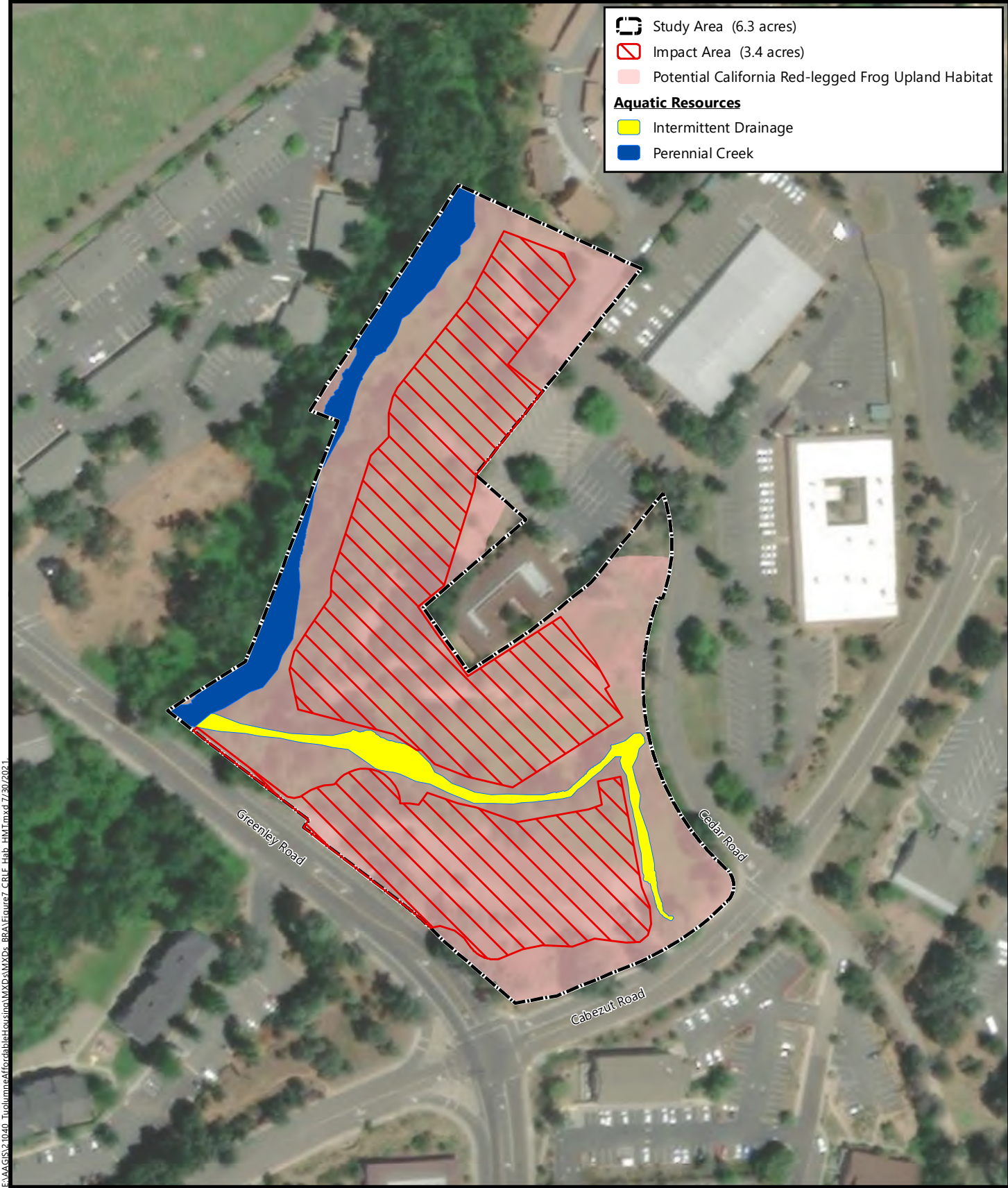
Impact Area (3.4 acres)

Potential California Red-legged Frog Upland Habitat

Aquatic Resources

Intermittent Drainage

Perennial Creek



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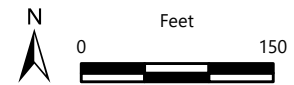


Figure 7
Potential California Red-legged Frog
Upland Habitat



Attachments

Attachment A. Conceptual Site Plan

Attachment B. IPaC Trust Resource Report for the Study Area

Attachment C. CNPS Inventory of Rare and Endangered Plants Query for the "Standard,
California" USGS Quadrangle and Eight Surrounding Quadrangles

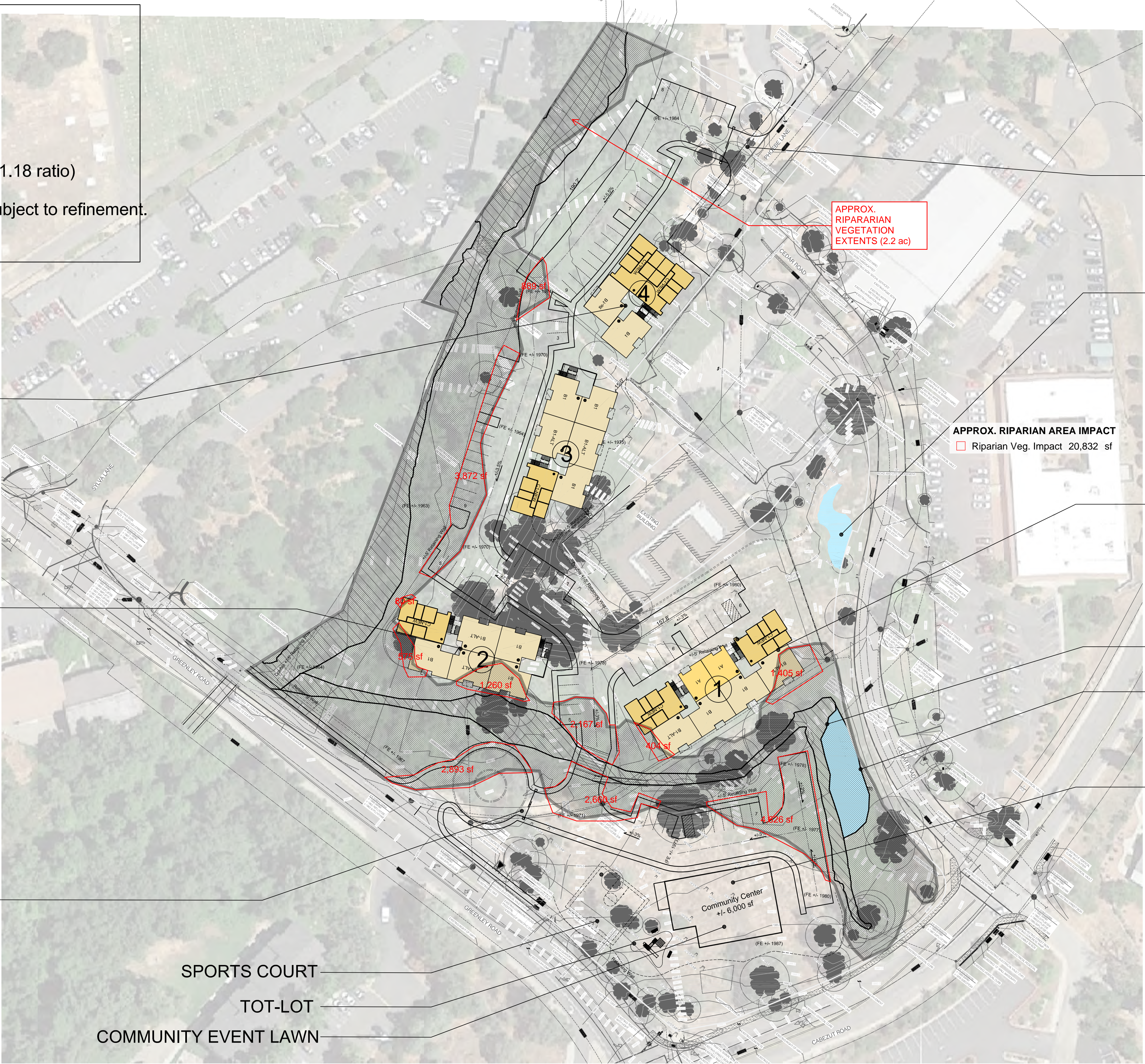
Attachment A

Conceptual Site Plan

PROJECT SUMMARY

Site Data:
Gross Site Area: +/- 5.93 ac
Total Apartment Units: 72 units
Gross Density: 12.14 du/ac
Community Center +/-6,000 sf
Parking 85 spaces (1.18 ratio)

*NOTE: Project summary are preliminary and subject to refinement.



APARTMENTS BUILDING TYPE A
- 3-story
- 15-plex
- 1 Plotted (#4)

APARTMENTS BUILDING TYPE B
- 3-story
- 12-plex
- 2 Plotted (#2 &3)

PROJECT ENTRY
- Gate

SECONDARY ENTRY

SEASONAL WETLAND

APARTMENTS BUILDING TYPE C
- 3-story
- 24-plex
- 1 Plotted (#1)

INTERMITTENT DRAINAGE

RIPARIAN WETLAND

COMMUNITY CENTER
- 1 level
- Total +/-6,000 sf.
- Leasing office, Office, Computer Labs,
Headstart day care

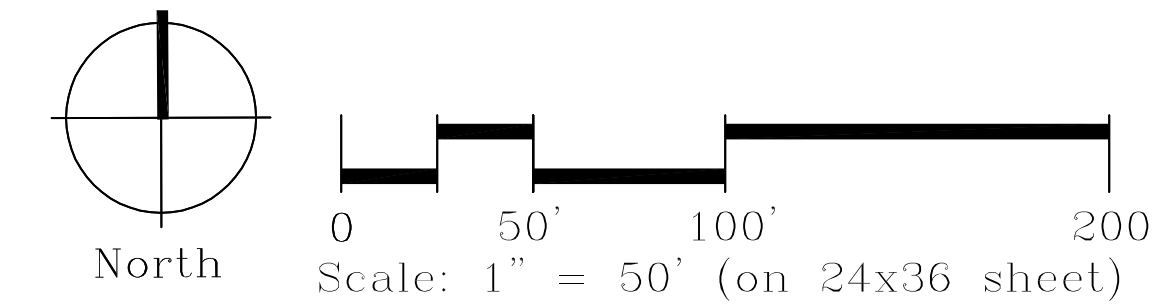
SPORTS COURT

TOT-LOT

COMMUNITY EVENT LAWN

NOTE: Proposed property location, boundary lines, and shape of the parcel shown in this study are for graphic reference only and may be subject to change pending on owner's final surveying map.

CONCEPTUAL SITE PLAN - 72 Units
HIDDEN MEADOW TERRACE
SONORA, CA.



VISIONARY HOME BUILDERS
Sacramento, CA.

Attachment B

IPaC Trust Resource Report for the Study Area

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Tuolumne County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/2891>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/321>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the [FAQ below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30

Nuttall's Woodpecker *Picoides nuttallii*

Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Rufous Hummingbird *Selasphorus rufus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8002>

Song Sparrow *Melospiza melodia*

Breeds Feb 20 to Sep 5

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee *Pipilo maculatus clementae*

Breeds Apr 15 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/4243>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that

- week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
 - The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

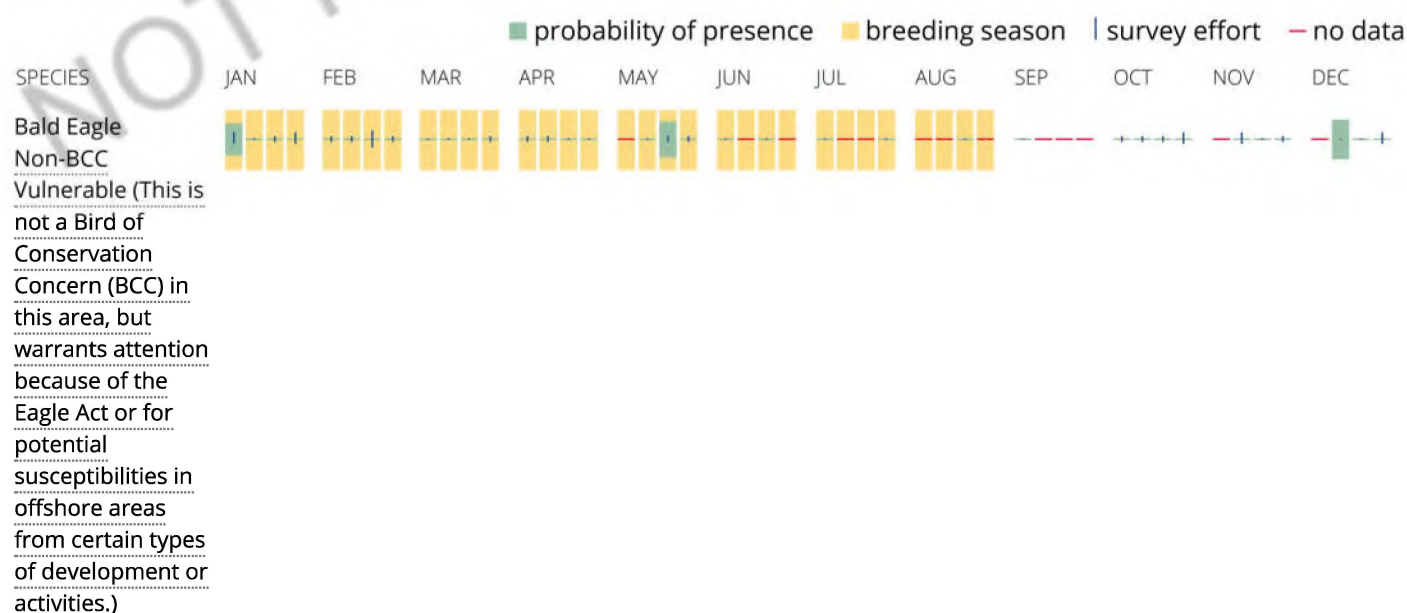
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

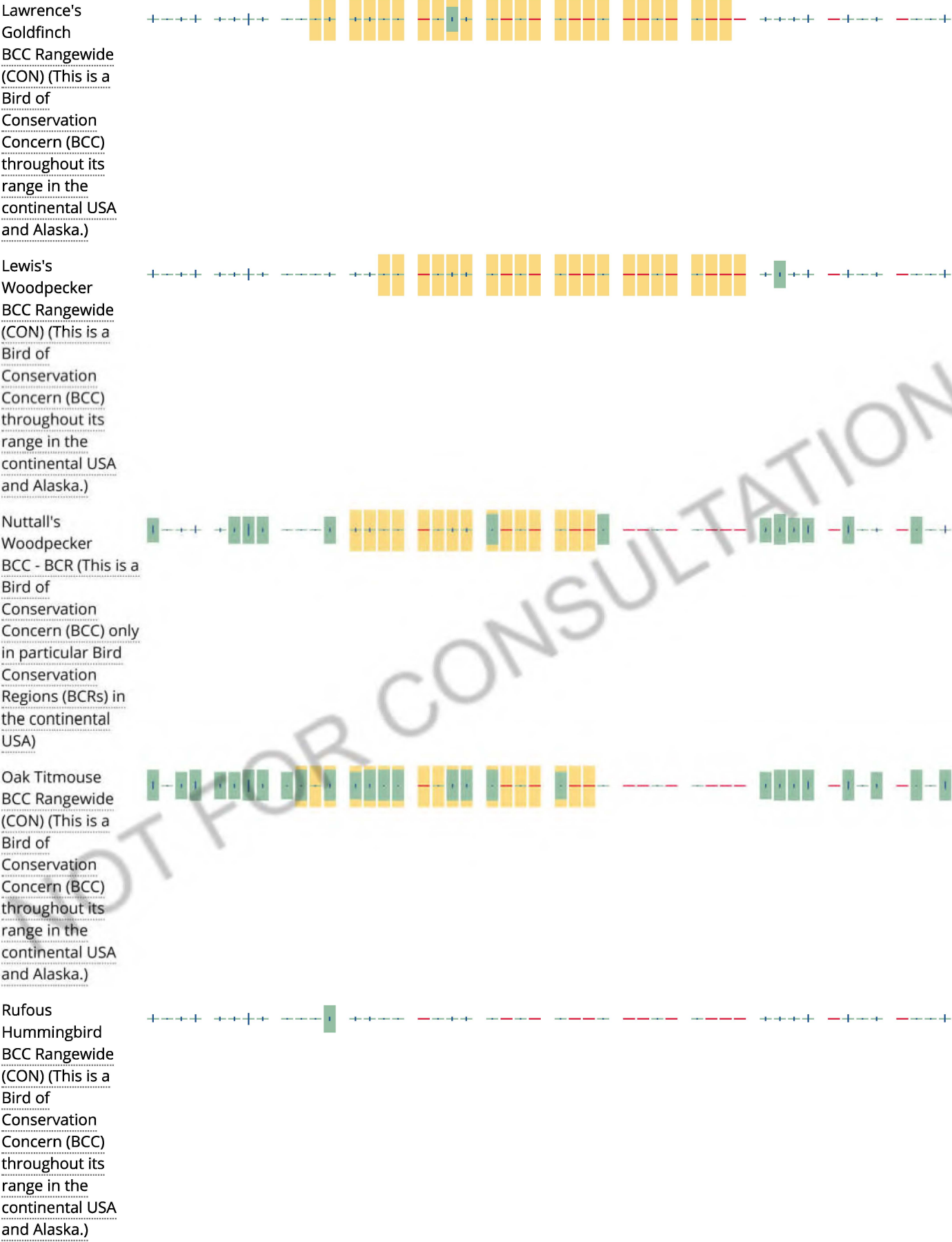
No Data (—)

A week is marked as having no data if there were no survey events for that week.

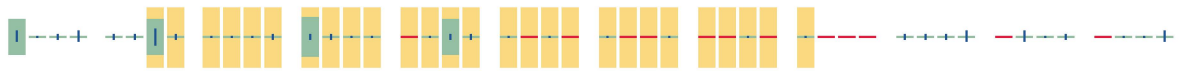
Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





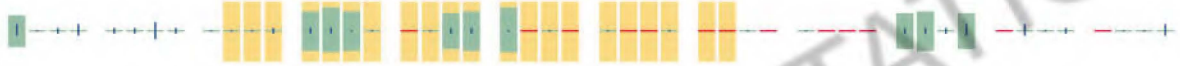
Song Sparrow
BCC - BCR (This is a
Bird of
Conservation
Concern (BCC) only
in particular Bird
Conservation
Regions (BCRs) in
the continental
USA)



Spotted Towhee
BCC - BCR (This is a
Bird of
Conservation
Concern (BCC) only
in particular Bird
Conservation
Regions (BCRs) in
the continental
USA)



Wrentit
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFOA](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Attachment C

**CNPS Inventory of Rare and Endangered
Plants Query for the "Standard, California"
USGS Quadrangle and Eight Surrounding Quadrangles**


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Search:

Simple

Advanced

Search for species and

Go

Search Results

Back

Export Results

30 matches found. Click on scientific name for details

Search Criteria: [CRPR](#) is one of [1A,1B,2A,2B,3], [Quad](#) is one of [3712084,3712083,3812014,3812013,3812012,3712082,3712072,3712073,3712074]

Scientific Name	Common Name	Family	Lifeform	Blooming Period	Fed List	State List	Global Rank	State Rank
CA Rare Plant Rank	General Habitats	Micro Habitats	Lowest Elevation	Highest Elevation	CA Endemic	Date Added	Photo	

Search:

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	None	None	1B.2
Allium tribracteatum	three-bracted onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	None	None	1B.2
Allium tuolumnense	Rawhide Hill onion	Alliaceae	perennial bulbiferous herb	Mar-May	None	None	1B.2
Arctostaphylos nissenana	Nissenan manzanita	Ericaceae	perennial evergreen shrub	Feb-Mar	None	None	1B.2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	1B.2
Brodiaea pallida	Chinese Camp brodiaea	Themidaceae	perennial bulbiferous herb	May-Jun	FT	CE	1B.1
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	None	None	1B.2
Clarkia australis	Small's southern clarkia	Onagraceae	annual herb	May-Aug	None	None	1B.2
Clarkia biloba ssp. australis	Mariposa clarkia	Onagraceae	annual herb	Apr-Jul	None	None	1B.2
Cryptantha mariposae	Mariposa cryptantha	Boraginaceae	annual herb	Apr-Jun	None	None	1B.3
Cryptantha spithamea	Red Hills cryptantha	Boraginaceae	annual herb	Apr-May	None	None	1B.3
Diplacus pulchellus	yellow-lip pansy monkeyflower	Phrymaceae	annual herb	Apr-Jul	None	None	1B.2
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	1B.2
Erythranthe acutidens	Kings River monkeyflower	Phrymaceae	annual herb	Apr-Jul	None	None	3
Erythranthe filicaulis	slender-stemmed monkeyflower	Phrymaceae	annual herb	Apr-Aug	None	None	1B.2
Erythranthe marmorata	Stanislaus	Phrymaceae	annual herb	Mar-May	None	None	1B.1

	monkeyflower			BLOOMING	FED	STATE	CA RARE
▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	PERIOD	LIST	LIST	PLANT RANK
<i>Erythronium</i>	Tuolumne fawn lily	Liliaceae	perennial bulbiferous	Mar-Jun	None	None	1B.2
<i>tuolumnense</i>			herb				
<i>Githopsis tenella</i>	delicate bluecup	Campanulaceae	annual herb	Apr-Jun	None	None	1B.3
<i>Horkelia parryi</i>	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	1B.2
<i>Hosackia oblongifolia</i>	copper-flowered bird's-foot trefoil	Fabaceae	perennial rhizomatous herb	Jun-Aug	None	None	1B.3
<i>var. cuprea</i>							
<i>Iris hartwegii</i> ssp. <i>columbiana</i>	Tuolumne iris	Iridaceae	perennial rhizomatous herb	May-Jun	None	None	1B.2
<i>Lewisia kelloggii</i> ssp. <i>hutchisonii</i>	Hutchison's lewisia	Montiaceae	perennial herb	(Apr)May-Aug	None	None	3.2
<i>Lomatium congdonii</i>	Congdon's lomatium	Apiaceae	perennial herb	Mar-Jun	None	None	1B.2
<i>Lomatium stebbinsi</i>	Stebbins' lomatium	Apiaceae	perennial herb	Mar-May	None	None	1B.1
<i>Lupinus spectabilis</i>	shaggyhair lupine	Fabaceae	annual herb	Apr-May	None	None	1B.2
<i>Navarretia miwukensis</i>	Mi-Wuk navarretia	Polemoniaceae	annual herb	May-Jun(Jul)	None	None	1B.2
<i>Navarretia paradoxiclara</i>	Patterson's navarretia	Polemoniaceae	annual herb	May-Jun(Jul)	None	None	1B.3
<i>Packera layneae</i>	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	FT	CR	1B.2
<i>Senecio clevelandii</i> var. <i>heterophyllus</i>	Red Hills ragwort	Asteraceae	perennial herb	May-Jul	None	None	1B.2
<i>Verbena californica</i>	Red Hills vervain	Verbenaceae	perennial herb	May-Sep	FT	CT	1B.1

Showing 1 to 30 of 30 entries

CONTACT US

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[California Natural Diversity Database](#)
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Aquatic Resources Delineation Report

Tuolumne Affordable Housing

City of Sonora, Tuolumne County, California
7 May 2021



Prepared for:

Visionary Home Builders of California, Inc.
315 N. San Joaquin Street
Stockton, CA 95202

Recommended Citation:

Madrone Ecological Consulting, LLC (Madrone). 2021. *Aquatic Resources Delineation Report for Tuolumne Affordable Housing*. Prepared for Visionary Home Builders of California, Inc. on 7 May 2021.

CONTENTS

Aquatic Resources Delineation Report Tuolumne Affordable Housing

1.0 Introduction	1
1.1 Contact Information	1
2.0 Methodology	1
3.0 Existing Conditions	2
3.1 Vegetation Communities and Land Cover Types	2
3.2 Hydrology	3
3.3 Soils	3
3.4 Driving Directions	3
4.0 Results	3
4.1 Sonora Creek (Perennial Creek)	4
4.2 Intermittent Drainage	4
4.3 Seasonal Wetland	5
4.4 Riparian Wetland	5
5.0 Conclusion	6
6.0 References	7

Figures

Figure 1. Site Vicinity

Figure 2. Natural Resources Conservation Service Soils

Figure 3. Aquatic Resources Delineation

Attachments

Attachment A. Representative Site Photographs

Attachment B. Arid West Wetland Determination Data Forms

Attachment C. Aquatic Resources Delineation Map

Attachment D. Plant Species Observed within the Study Area

Attachment E. GIS Shapefiles and the Aquatic Resources Excel Spreadsheet (on CD)

Attachment F. Permission to Enter

1.0 INTRODUCTION

This report presents the results of a delineation of aquatic resources within the Tuolumne Affordable Housing Project (Study Area) conducted by Madrone Ecological Consulting, LLC (Madrone). The approximately 6.3-acre Study Area is located north of the intersection of Greenley Road and Cabezut Road in the City of Sonora in Tuolumne County, California. Sonora Creek flows along the northern boundary of the Study Area from northeast to southwest. The Study Area includes portions of Section 31 within Township 2 North and Range 15 East MDB&M of the "Standard, California" 7.5-minute quadrangle (USGS 1987) (Figure 1). The Study area is within the Upper Tuolumne HUC 18040009 (USGS 1978).

1.1 Contact Information

Property Representative

Visionary Home Builders of California, Inc.
315 N. San Joaquin Street
Stockton, CA 95202

Agent

Ben Watson
Madrone Ecological Consulting, LLC
8421 Auburn Blvd., Suite #248
Citrus Heights, CA 95610

2.0 METHODOLOGY

Madrone senior biologist Dustin Brown conducted a delineation of aquatic resources within the Study Area on 9 April 2021. Water features 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 each data point, documenting wetland/waters or upland status, as appropriate. The delineation map was prepared in accordance with the *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program* (USACE 2016a). The GPS data was overlaid on an ortho-rectified aerial photograph (Maxar Vivid GE01 2019).

The delineation was performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program*. 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* (Lichvar et al. 2016) was used to determine the wetland indicator status of plants observed in the Study Area. The *Jepson eFlora* (Jepson Flora Project 2021) 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.

3.0 EXISTING CONDITIONS

The Study Area is located within northwestern Tuolumne County approximately one mile east of downtown Sonora. Sonora Creek (perennial stream) flows from northeast to southwest through the northern portion of the Study Area. The Study Area is bounded to the west by Greenley Road, to the south by Cabezut Road, and to the east by Cedar Road. Tuolumne County government services offices are located immediately east of the Study Area. The northern portion of the Study Area is dominated by Sonora Creek and associated riparian corridor and Himalayan blackberry (*Rubus armeniacus*) brambles. The southern portion of the Study Area contains some areas of ruderal grassland, an intermittent drainage and associated riparian corridor, and two wetlands.

A review of historic aerial photographs was conducted for the Study Area (Google Earth Pro 2021). It appears that the uplands within the Study Area were historically dominated by native oak trees. Most of the existing oak trees within these areas were removed between 2006 and 2009. These areas are currently supporting extensive Himalayan blackberry brambles and ruderal grassland vegetation communities.

Water flow within the two onsite drainages appear to be influenced by both precipitation runoff and by groundwater.

Topography within the Study Area generally slopes from east to west and elevations within the Study Area range from approximately 1,970 feet above mean sea level (MSL) to approximately 1,995 feet above MSL. Surrounding land uses consist of County government services offices and Cedar Road to the east, Sonora Creek and apartments to the north, Greenley Road and apartments to the west, and Cabezut Road and a church to the south.

Please see **Attachment A** for representative site photographs of the Study Area.

3.1 Vegetation Communities and Land Cover Types

Three upland vegetation communities including Himalayan blackberry bramble, ruderal grassland and riparian woodland were documented within the Study Area. These vegetation communities and land cover types are described below.

Approximately half of the Study Area, including the northern and central portions, are dominated by dense Himalayan blackberry brambles. These brambles appear to have grown in size since much of the trees within the Study Area were cut down approximately 12 to 15 years ago. This vegetation community is dominated by Himalayan blackberry and contains scattered interior live oak (*Quercus wislezeni*) and poison oak (*Toxicodendron diversilobum*).

The southern and central portions of the Study Area contain areas of ruderal grassland. This vegetation community is dominated by ripgut brome (*Bromus diandrus*), cutleaf geranium (*Geranium dissectum*), broad-leaved filaree (*Erodium botrys*), bicolored lupine (*Lupinus bicolor*), wild hyacinth (*Triteleia hyacinthine*), common fiddleneck (*Amsinckia intermedia*), rose clover (*Trifolium hirtum*), sticky mouse-ear chickweed (*Cerastium glomeratum*), and winter vetch (*Vicia villosa* subsp. *villosa*). Scattered tree and shrub species

within this vegetation community include interior live oak, blue oak (*Quercus douglasii*), coyote brush (*Baccharis pilularis*), foothill pine (*Pinus sabiniana*), California buckeye (*Aesculus californica*), and tree of heaven (*Ailanthus altissima*).

There are areas of riparian woodland along both of the drainages within the Study Area. These areas are generally dominated by a canopy of white alder (*Alnus rhombifolia*), Fremont cottonwood (*Populus fremontii*), Valley oak (*Quercus lobata*), and black willow (*Salix gooddingii*), a shrub layer of Himalayan blackberry, California grape (*Vitus californica*), and California wild rose (*Rosa californica*), with scattered herbaceous species such as common knotweed (*Persicaria lapathifolia*), Baltic rush (*Juncus balticus*), broad-leaved cattail (*Typha latifolia*), hardstem bulrush (*Schoenoplectus acutus*), curly dock (*Rumex crispus*), common horsetail (*Equisetum arvense*), tall nutsedge (*Cyperus eragrostis*), and California mugwort (*Artemisia douglasiana*).

3.2 Hydrology

Surface water in the Study Area appears to be from natural storm water runoff in the rainy season and from ground water throughout the year. Water flows off of the Study Area through Sonora Creek. Sonora Creek is a tributary to Woods Creek, Woods Creek is a tributary to the Tuolumne River, the Tuolumne River is a tributary to the San Joaquin River. The Study Area is located in the Upper Tuolumne HUC 18040009 (USGS 1978).

3.3 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2021), two soil mapping units occur within the Study Area (**Figure 2**): (8110) Cumulic Humixerepts-Riverwash complex, 0 to 8 percent slopes and (9011) Urban land-Sierra-Flanly complex, 3 to 25 percent slopes. None of these three soil types are considered hydric or contain hydric inclusions. Cumulic Humixerepts-Riverwash complex contains a minor component of hydric soils consisting of 5 percent Typic fluvaquents and Urban land-Sierra-Flanly complex contains a minor component of hydric soils consisting of 2 percent Typic fluvaquents.

3.4 Driving Directions

From Sacramento, take Highway 99 south towards Stockton. Exit east at Exit 525B CA-99 toward Yuba City/Marysville. Take exit 273 for Liberty Road and go east on Liberty Road for 12 miles and turn right on Highway 88. Continue on Highway 88 for 2.9 miles and turn left (east) on Highway 12. Continue for 23 miles on Highway 12 and turn right (south) on Highway 49. Continue south on Highway 49 for 29 miles and turn left on Elkin Street, turn right on N Stewart Street, turn left on Lyons Street, turn right on Greenley Road, turn left on Cabezut Road, turn left on Cedar Road and the Study Area will be on your left.

4.0 RESULTS

Approximately 0.745 acre of aquatic resources were delineated within the Study Area (**Table 1**).

Table 1. Potential Aquatic Resources Mapped within the Study Area

Resource Type	Acreage
<i>Wetlands</i>	
Riparian Wetland	0.068
Seasonal Wetland	0.028
<i>Other Waters</i>	
Perennial Creek (Sonora Creek)	0.419
Intermittent Drainage	0.230
Total	0.745

These resources include a section of Sonora Creek (perennial creek), one intermittent drainage, one seasonal wetland, and one riparian wetland. Data sheets are included in **Attachment B**, a map of the aquatic resources is included as **Figure 3**, a large map of the aquatic resources is included as **Attachment C**, and a list of the plant species observed in the Study Area with their wetland indicator status is included in **Attachment D**. GIS Shapefiles and the *Aquatic Resources Excel Spreadsheet* for the aquatic resources shown on **Attachment C** are included on a CD in **Attachment E**.

4.1 Sonora Creek (Perennial Creek)

A portion of Sonora Creek flows from northeast to southwest along the northern Study Area boundary. Sonora Creek is a moderate-gradient rocky creek with moderately incised banks and an established band of riparian vegetation. Flows within the creek appear to be very flashy based upon precipitation events. Flows at the time of the April 2021 survey were estimated to be approximately two to three cubic feet per second. Sonora Creek shows up on the 7.5 minute-USGS map as a dashed blue line feature.

The bed of Sonora Creek is dominated by a cobble and boulder substrate and is generally scoured by swift flows. The banks of Sonora Creek are heavily vegetated by an understory of Himalayan blackberry (FAC) and a canopy of white alder (FACW), Valley oak (FACU), and black willow (FACW). The ordinary high water mark (OHWM) of Sonora Creek was mapped based upon riverine hydrology indicators Water Marks (B1), Sediment Deposits (B2), and Drift Deposits (B3).

Sonora Creek meets the definition of a tributary and would be considered a Jurisdictional Water under the 2020 CWR Section 328.3(a)(ii).

4.2 Intermittent Drainage

Intermittent drainages are small to medium-sized seasonal streams that flow intermittently for short to long periods after precipitation events and may be influenced by ground water. Intermittent drainages sometimes appear as a dashed blue line on the USGS 7.5-minute quadrangle maps. One intermittent drainage was mapped within the southern portion of the Study Area. This feature flows onto the Study Area from a culvert outfall along Cabezut Road and flows west and into Sonora Creek. Water was present within the drainage at the time of the April 2021 survey. Flows observed within the drainage were approximately 0.1 cubic foot per second.

The bed of the intermittent drainage is mostly unvegetated and is comprised of a mix of cobble, sand, and gravel. The banks of intermittent drainage are moderately incised, comprised of cobble and soil, and are vegetated mostly by riparian vegetation and brambles. The margins of the drainage are vegetated by Himalayan blackberry (FAC), black willow (FACW), Valley oak (FACU), white alder (FACW), and broad-leaf cattail (OBL). The OHWM of the intermittent drainage was mapped based upon riverine hydrology indicators Water Marks (B1), Sediment Deposits (B2), and Drift Deposits (B3).

The intermittent drainage meets the definition of a tributary and would be considered a Jurisdictional Water under the 2020 CWR Section 328.3(a)(ii).

4.3 Seasonal Wetland

One seasonal wetland is located within the far eastern portion of the Study Area just west of Cedar Road. This manmade earthen feature appears to be a storm water quality basin that functions to collect and treat stormwater runoff from the parking lots and roads to the north and east of the Study Area. Water enters the feature from the north through several small upland erosional rilles and ponds within the feature. Maximum depth appears to be one to two feet and ponding of several inches was observed during the April 2021 survey. The northern portion of the wetland is mostly vegetated by grass and forb species such as Italian ryegrass (*Festuca perennis*)(FAC), tall flatsedge (*Cyperus eragrostis*)(FACW), and curly dock (*Rumex crispus*)(FAC) while the southern portion of the wetland is dominated by Himalayan blackberry (FAC), short black willow (FACW), and hardstem bulrush (*Schoenoplectus acutus*)(OBL). Indicators of wetland hydrology observed within the seasonal wetland included saturation (A3) and nonriverine water marks (B1). The soil matrix color at Data Point 1 was 10YR 3/2 and 10YR 3/1 with 5% 10YR 3/3 redox concentrations in the pore linings. The soil at these data points was considered to be hydric based on the presence of field indicator F3 (depleted matrix).

The seasonal wetland is an isolated feature that is not adjacent to a Jurisdictional Water of the U.S. As such, it is our opinion that this feature would be considered a Non-Jurisdictional Water under the 2020 CWR Section 328.3(b)(i).

4.3 Riparian Wetland

One riparian wetland is located adjacent to the intermittent drainage and immediately west of Cedar Road within the southeastern portion of the Study Area. This wetland feature appears to receive seepage from the adjacent intermittent drainage and from the uplands to the east of the Study Area. No surface water was observed at the time of the April 2021 survey. The riparian wetland is heavily vegetated by broad-leaf cattail (OBL), Himalayan blackberry (FAC), and small black willow (FACW). Indicators of wetland hydrology observed within the riparian wetland included saturation (A3). The soil matrix color at Data Point 3 was 10YR 3/1 with 10% 10YR 3/3 redox concentrations in the pore linings. The soil at these data points was considered to be hydric based on the presence of field indicator F3 (depleted matrix).

The riparian wetland meets the definition of an adjacent wetland and would be considered a Jurisdictional Water under the 2020 CWR Section 328.3(a)(iv).

5.0 CONCLUSION

A total of 0.745 acre of aquatic resources were mapped within the Study Area. As detailed above, we believe that Sonora Creek, the intermittent drainage, and the riparian wetland would be considered Jurisdictional Waters and that the seasonal wetland would be considered Non-Jurisdictional Waters under the 2020 CWR. The applicant is requesting an Approved Jurisdictional Determination for the Aquatic Resources Delineation map included as **Attachment C**. A signed statement providing USACE staff accompanied access to the Study Area is included as **Attachment F**.

6.0 REFERENCES

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- U.S. Department of the Interior, Geological Survey (USGS). 1987. *Standard, California 7.5-minute Quadrangle*. Geological Survey. Denver, Colorado.

Figures

Figure 1. Vicinity Map

Figure 2. Natural Resources Conservation Service Soils

Figure 3. Aquatic Resources Delineation

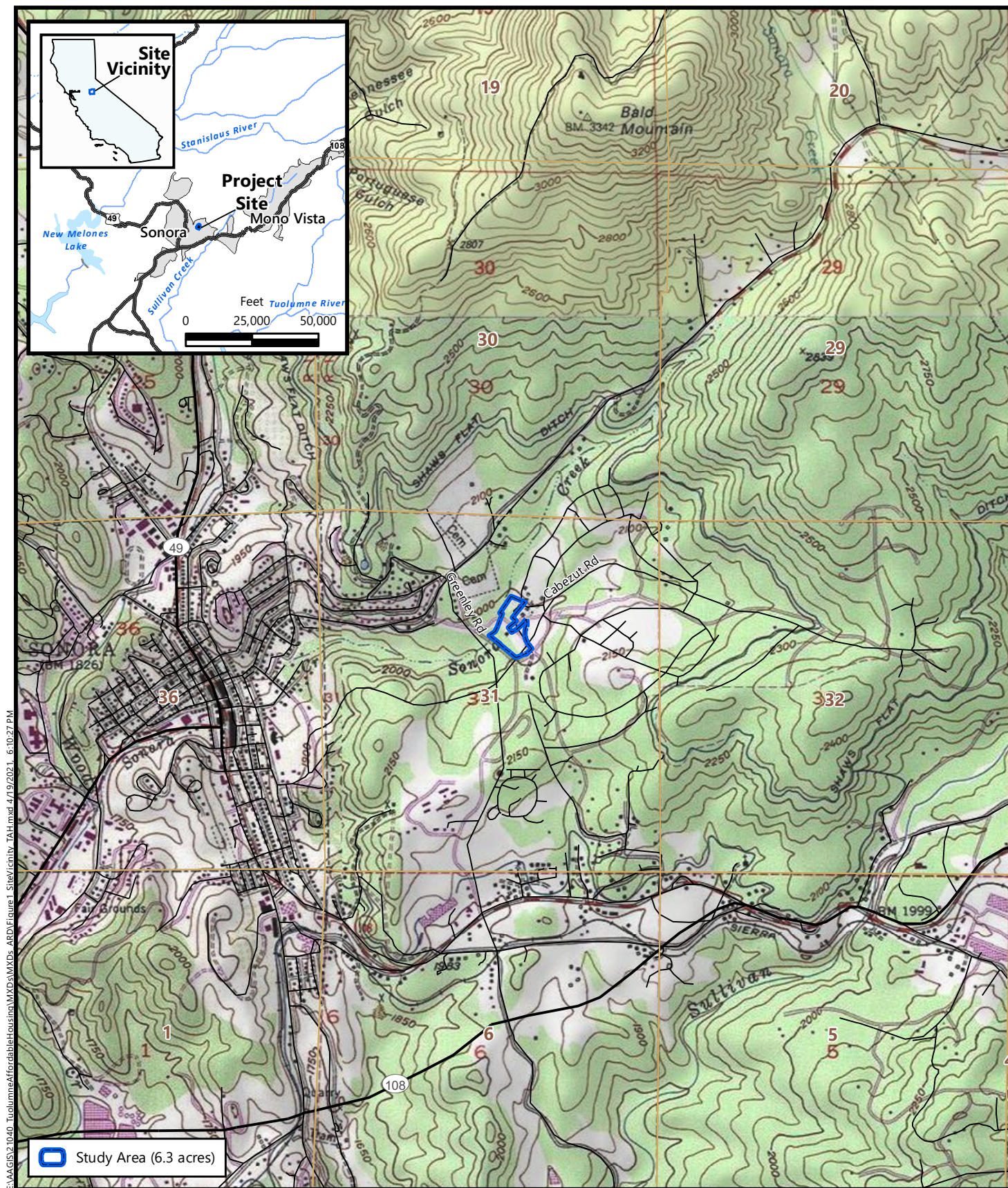


Figure 1
Site and Vicinity

Source: United States Geologic Survey, 1987
 Sections 31, Township 2 North, Range 15 East, MDB&M
 "Standard, California" 7.5-Minute Topographic Quadrangle
 Longitude -120.367184, Latitude 37.986441

Tuolumne Affordable Housing
 Sonora, California

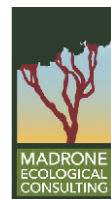


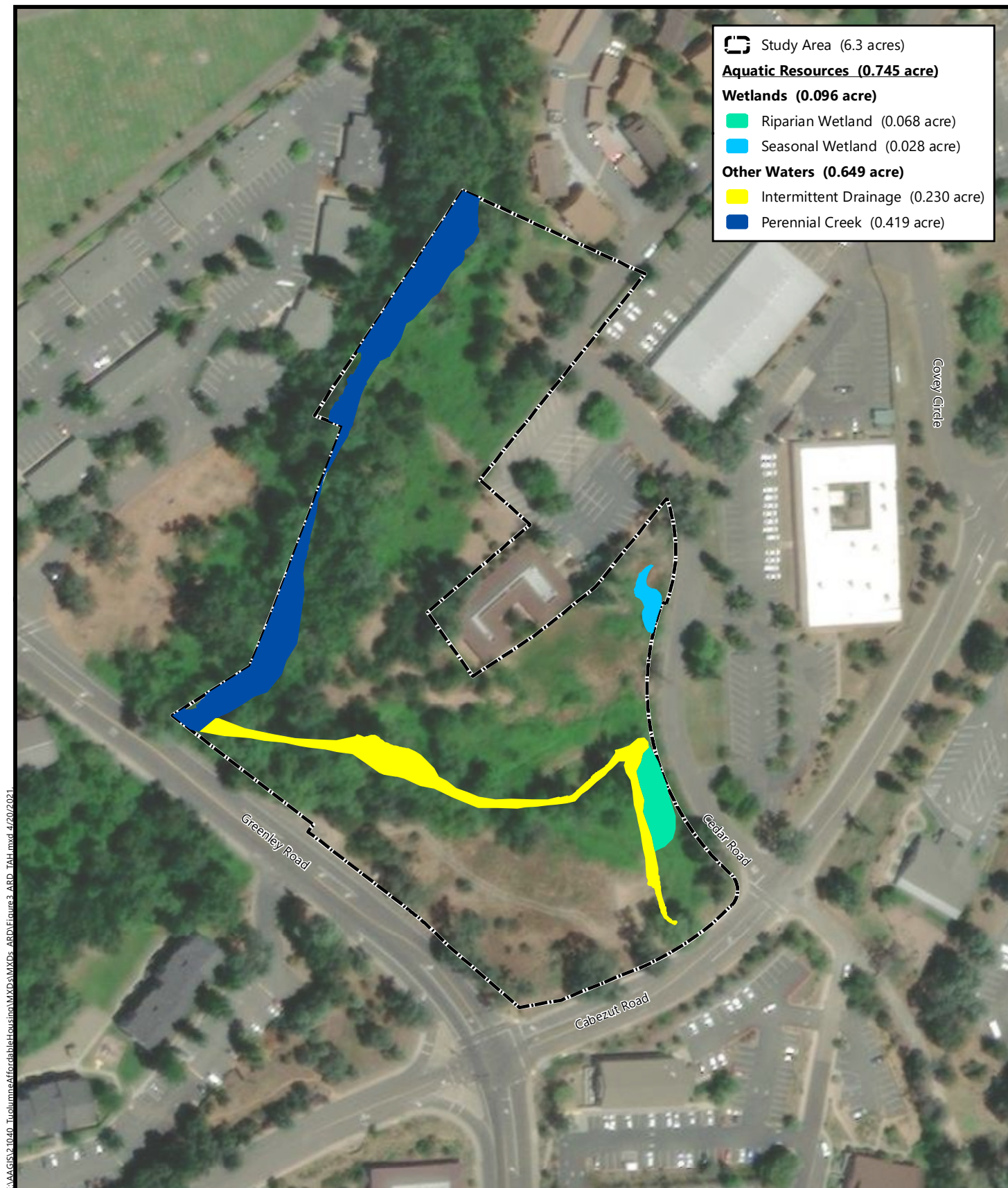


Figure 2
Natural Resources Conservation
Service Soils

Soil Survey Source: *USDA, Soil Conservation Service.*
Soil Survey Geographic (SSURGO) database for Central Sierra Foothills
Area, California, Parts of Calaveras and Tuolumne Counties (CA630)
 Aerial Source: Maxar Vivid GE01, 23 June 2019

Tuolumne Affordable Housing
Sonora, California





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Attachments

Attachment A. Representative Site Photographs

Attachment B. Arid West Wetland Determination Data Forms

Attachment C. Aquatic Resources Delineation Large Map

Attachment D. Plant Species Observed within the Study Area

Attachment E. GIS Shapefiles and the Aquatic Resources Excel Spreadsheet (on CD)

Attachment F. Permission to Enter

Attachment A

Representative Site Photographs



Photograph 1. Representative photograph of Sonora Creek (perennial creek), facing downstream within the western portion of the Study Area



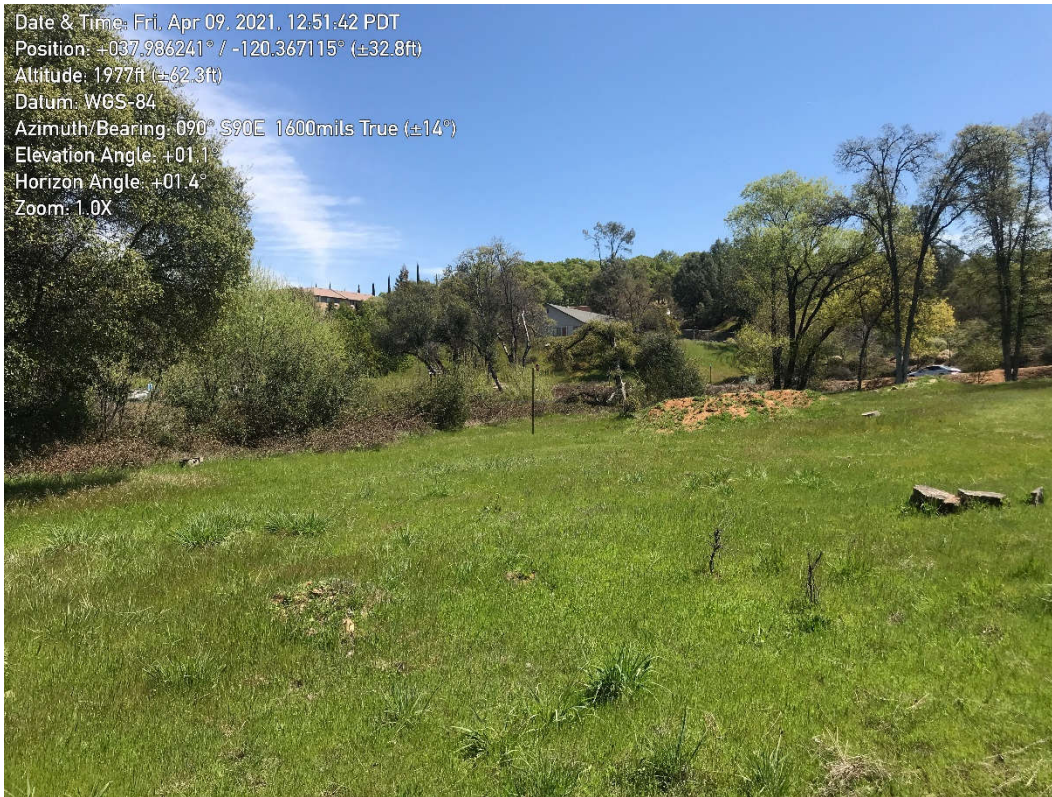
Photograph 2. Facing across a large Himalayan blackberry bramble within the northern portion of the Study Area east of Sonora Creek.



Photograph 3. Representative photograph of Sonora Creek (perennial creek), facing upstream within the western portion of the Study Area



Photograph 4. Photograph of SW-1 within the eastern portion of the Study Area facing south. Cedar Road on the left.



Photograph 5. Representative photograph of the southern portion of the Study Area facing east



Photograph 6. Photograph of upland rills within the southern portion of the Study Area with Greenley Road in the background



Photograph 7. Photograph of ID-1 facing west within the western portion of the Study Area



Photograph 8. Representative photograph of the southern portion of the Study Area facing west



Photograph 9. Photograph of a culvert under Cabezut Road where ID-1 flows onto the Study Area within the eastern portion of the Study Area



Photograph 10. Photograph of the central portion of the Study Area facing west from Cedar Road



Photograph 11. Photograph of Riparian Wetland 1 facing south from Cedar Road.



Photograph 12. Photograph of the northern portion of the Study Area facing north

Attachment B

Arid West Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Tuolumne Affordable Housing City/County: Sonora / Tuolumne Sampling Date: 04/09/21
 Applicant/Owner: Visionary Home Builders of California, Inc. State: CA Sampling Point: 1
 Investigator(s): Dustin Brown, Madrone Ecological Consulting Section, Township, Range: Section 31, Township 2 North, Range 15 East
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): Mediterranean California (LRR C) Lat: 37.98709 Long: -120.366415 Datum: NAD 83
 Soil Map Unit Name: 9011 - Urban land-Sierra-Flanly complex, 3 to 25 percent slopes NWI Classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (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 <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u> </u>
Remarks: The vicinity of the Study Area is experiencing a severe drought and rainfall during the 2020-2021 wet season is well below normal. Data point is located within a manmade small stormwater detention basin that exhibits wetland characteristics.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u> </u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0</u> =Total Cover				
Sapling/Shrub Stratum (Plot size: <u> </u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index Worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>30</u> x1 = <u>30</u> FACW species <u>30</u> x2 = <u>60</u> FAC species <u>20</u> x3 = <u>60</u> FACU species <u> </u> x4 = <u>0</u> UPL species <u> </u> x5 = <u>0</u> Column Totals: <u>80</u> (A) <u>150</u> (B) Prevalence Index = B/A = <u>1.9</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0</u> =Total Cover				
Herb Stratum (Plot size: <u>1 meter²</u>)				
1. <i>Schoenoplectus acutus</i>	30	Y	OBL	Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <i>Rumex crispus</i>	20	Y	FAC	
3. <i>Cyperus eragrostis</i>	30	Y	FACW	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>80</u> =Total Cover				
Woody Vine Stratum (Plot size: <u> </u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> =Total Cover				
% Bare Ground in Herb Stratum <u>20</u>	% Cover of Biotic Crust <u>20</u>			

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR3/2	100					sandy loam	
2-12	10YR3/1	95	10YR3/3	5	C	PL	loamy sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Bedrock
Depth (inches): 12

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input checked="" type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): _____
 Saturation Present? Yes ☒ No ☐ Depth (inches): 3
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Tuolumne Affordable Housing City/County: Sonora / Tuolumne Sampling Date: 04/09/21
 Applicant/Owner: Visionary Home Builders of California, Inc. State: CA Sampling Point: 2
 Investigator(s): Dustin Brown, Madrone Ecological Consulting Section, Township, Range: Section 31, Township 2 North, Range 15 East
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 10
 Subregion (LRR): Mediterranean California (LRR C) Lat: 37.987123 Long: -120.366419 Datum: NAD 83
 Soil Map Unit Name: 9011 - Urban land-Sierra-Flanly complex, 3 to 25 percent slopes NWI Classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (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 <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: The vicinity of the Study Area is experiencing a severe drought and rainfall during the 2020-2021 wet season is well below normal. Data point is located within an upland grassy area adjacent to a seasonal wetland.	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u>0</u>	<u> </u>	<u> </u>	
<u>0</u> =Total Cover				Prevalence Index Worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x1 = <u>0</u> FACW species <u> </u> x2 = <u>0</u> FAC species <u>15</u> x3 = <u>45</u> FACU species <u>10</u> x4 = <u>40</u> UPL species <u>60</u> x5 = <u>300</u> Column Totals: <u>85</u> (A) <u>385</u> (B) Prevalence Index = B/A = <u>4.5</u>
<u>Sapling/Shrub Stratum</u> (Plot size: <u> </u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators: <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>85</u> =Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>Herb Stratum</u> (Plot size: <u>1 meter²</u>)				
1. <u>Medicago polymorpha</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
2. <u>Rubus armeniacus</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Bromus diandrus</u>	<u>60</u>	<u>Y</u>	<u>UPL</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>85</u> =Total Cover				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
<u>Woody Vine Stratum</u> (Plot size: <u> </u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> =Total Cover				
% Bare Ground in Herb Stratum <u>15</u>	% Cover of Biotic Crust <u> </u>			

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR3/3	100					sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators 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:

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes _____ No **X** Depth (inches): _____Water Table Present? Yes _____ No **X** Depth (inches): _____Saturation Present? Yes _____ No **X** Depth (inches): _____
(includes capillary fringe)
Wetland Hydrology Present? Yes _____ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Tuolumne Affordable Housing City/County: Sonora / Tuolumne Sampling Date: 04/09/21
 Applicant/Owner: Visionary Home Builders of California, Inc. State: CA Sampling Point: 3
 Investigator(s): Dustin Brown, Madrone Ecological Consulting Section, Township, Range: Section 31, Township 2 North, Range 15 East
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 15
 Subregion (LRR): Mediterranean California (LRR C) Lat: 37.986546 Long: -120.366392 Datum: NAD 83
 Soil Map Unit Name: 8110 - Cumulic Humixerepts-Riverwash complex, 0 to 8 percent slopes NWI Classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (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 <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	
Remarks: The vicinity of the Study Area is experiencing a severe drought and rainfall during the 2020-2021 wet season is well below normal. Data point is located within a riparian wetland adjacent to an intermittent drainage.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u> </u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
	<u>0</u>	=Total Cover		
Sapling/Shrub Stratum (Plot size: <u> </u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index Worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>50</u> x1 = <u>50</u> FACW species <u> </u> x2 = <u>0</u> FAC species <u>50</u> x3 = <u>150</u> FACU species <u> </u> x4 = <u>0</u> UPL species <u> </u> x5 = <u>0</u> Column Totals: <u>100</u> (A) <u>200</u> (B) Prevalence Index = B/A = <u>2.0</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u>0</u>	=Total Cover		
Herb Stratum (Plot size: <u>1 meter²</u>)				
1. <u>Rubus armeniacus</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Typha latifolia</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u>100</u>	=Total Cover		
Woody Vine Stratum (Plot size: <u> </u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR3/1	90	10YR3/3	10	C	PL	sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators 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 ☐

Remarks:

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): _____
 Saturation Present? Yes ☒ No ☐ Depth (inches): 1
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site:	Tuolumne Affordable Housing		City/County:	Sonora / Tuolumne		Sampling Date:	04/09/21	
Applicant/Owner:	Visionary Home Builders of California, Inc.				State:	CA		
Investigator(s):	Dustin Brown, Madrone Ecological Consulting		Section, Township, Range: Section 31, Township 2 North, Range 15 East					
Landform (hillslope, terrace, etc.):	Hillslope		Local relief (concave, convex, none):				none	
			Slope (%):				50	
Subregion (LRR):	Mediterranean California (LRR C)		Lat:	37.986561		Long:	-120.366369	
			Datum:		NAD 83			
Soil Map Unit Name:	8110 - Cumulic Humixerepts-Riverwash complex, 0 to 8 percent slopes					NW1 Classification:		
					none			
Are climatic / hydrologic conditions on the site typical for this time of year?			Yes		No		X (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 <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: The vicinity of the Study Area is experiencing a severe drought and rainfall during the 2020-2021 wet season is well below normal. Data point is located within an upland slope adjacent to a riparian wetland.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____					Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A)	
2. _____					Total Number of Dominant Species Across All Strata: _____ 2 (B)	
3. _____					Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 50% (A/B)	
4. _____		0	=Total Cover			
Sapling/Shrub Stratum (Plot size: __ 1 meter ² __)					Prevalence Index Worksheet:	
1. <i>Quercus wislizeni</i>		30	Y	UPL	Total % Cover of: _____ Multiply by: _____	
2. _____					OBL species _____ x1 = _____ 0	
3. _____					FACW species _____ x2 = _____ 0	
4. _____					FAC species _____ 60 x3 = _____ 180	
5. _____					FACU species _____ x4 = _____ 0	
		30	=Total Cover		UPL species _____ 30 x5 = _____ 150	
					Column Totals: _____ 90 (A) _____ 330 (B)	
					Prevalence Index = B/A = _____ 3.7	
Herb Stratum (Plot size: __ 1 meter ² __)					Hydrophytic Vegetation Indicators:	
1. <i>Rubus armeniacus</i>		60	Y	FAC	_____ Dominance Test is >50%	
2. _____					_____ Prevalence Index is ≤3.0 ¹	
3. _____					_____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____					_____ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____						
6. _____						
7. _____						
8. _____						
		60	=Total Cover			
Woody Vine Stratum (Plot size: _____)					_____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. _____						
2. _____						
			=Total Cover			
% Bare Ground in Herb Stratum	10	% Cover of Biotic Crust		0	Hydrophytic Vegetation Present? Yes No X	

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR3/2	100					gravelly loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators 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:

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____
Water Table Present? Yes _____ No **X** Depth (inches): _____
Saturation Present? Yes _____ No **X** Depth (inches): _____
(includes capillary fringe)









Wetland Hydrology Present? Yes _____ No **X**

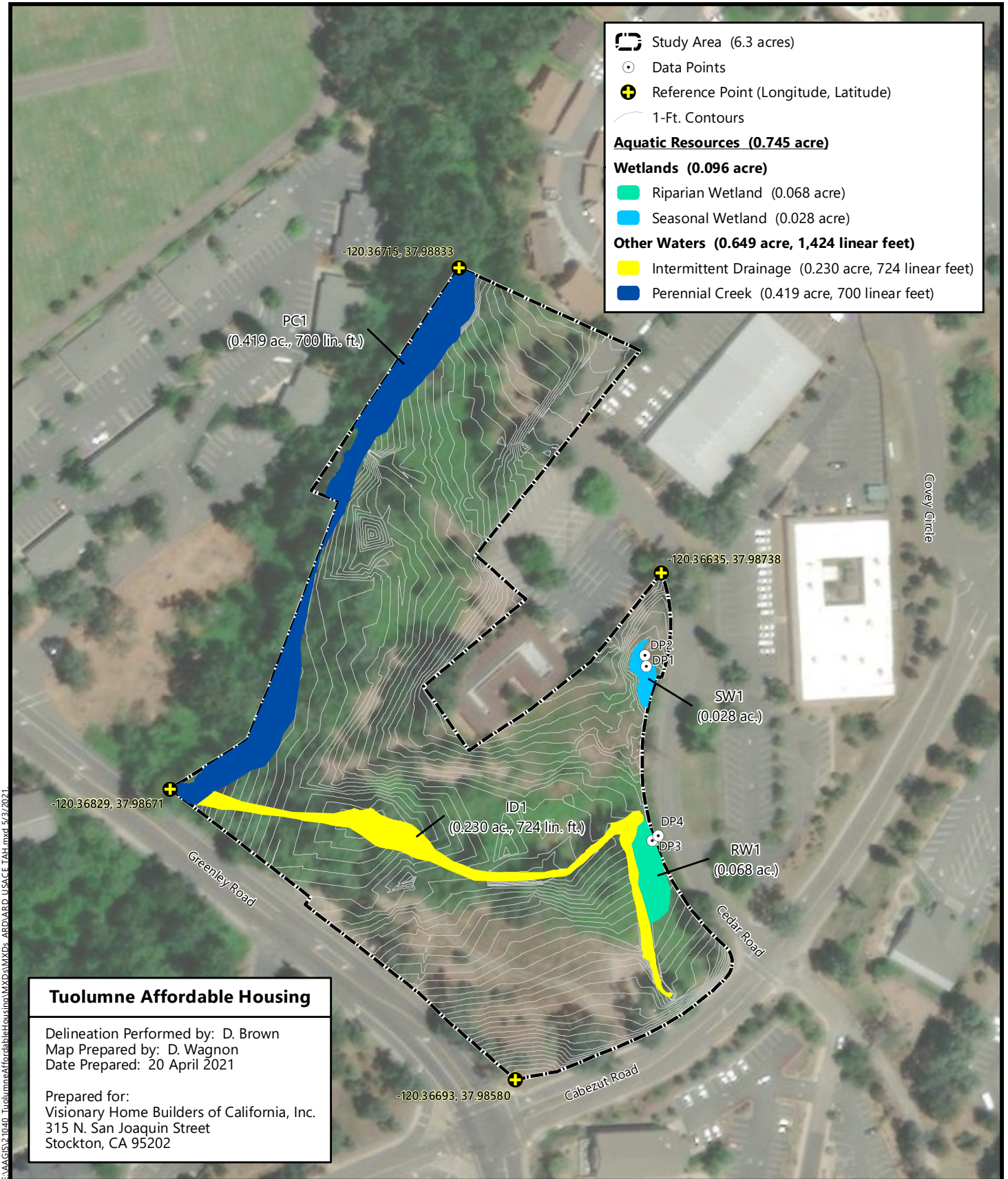
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

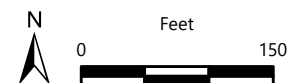
Attachment C

Aquatic Resources Delineation Large Map

 Study Area (6.3 acres)
 Data Points
 Reference Point (Longitude, Latitude)
 1-Ft. Contours
Aquatic Resources (0.745 acre)
Wetlands (0.096 acre)
 Riparian Wetland (0.068 acre)
 Seasonal Wetland (0.028 acre)
Other Waters (0.649 acre, 1,424 linear feet)
 Intermittent Drainage (0.230 acre, 724 linear feet)
 Perennial Creek (0.419 acre, 700 linear feet)



F:\AAAGIS\21040_TuolumneAffordableHousing\MXDs\ARD\ARD_USACE_TAH.mxd 5/3/2021



Map Scale: 1 inch = 150 feet
 Datum: NAD83, Projection: Lambert Conformal Conic
 Coordinate System: California State Plane Zone III (FIPS 0402)
 Aerial Source: Maxar Vivid GE01, 23 June 2019
 Topo Source: Northstar Engineering Group, Inc.

Aquatic Resources Delineation

Tuolumne Affordable Housing
 Sonora, California



Attachment D

Plant Species Observed within the Study Area

**Plant Species Observed within the
Tuolumne Affordable Housing Study Area
9 April 2021**

Species Name	Common Name	Wetland Indicator Status
<i>Aesculus californica</i>	Buckeye	UPL
<i>Ailanthus altissima</i>	Tree of heaven	UPL
<i>Alnus rhombifolia</i>	White alder	FACW
<i>Amsinckia intermedia</i>	Common fiddleneck	UPL
<i>Artemisia douglasiana</i>	California mugwort	FAC
<i>Avena fatua</i>	Wild oat	UPL
<i>Baccharis pilularis</i>	Coyote brush	UPL
<i>Brassica nigra</i>	Black mustard	UPL
<i>Bromus diandrus</i>	Ripgut brome	UPL
<i>Bromus hordeaceus</i>	Soft chess brome	FACU
<i>Calandrinia ciliata</i>	Fringed red maids	FACU
<i>Centaurea solstitialis</i>	Yellow starthistle	UPL
<i>Cerastium glomeratum</i>	Sticky mouse-ear chickweed	UPL
<i>Chlorogalum pomeridianum</i>	Common soaproot	UPL
<i>Cichorium intybus</i>	Chicory	FACU
<i>Cirsium vulgare</i>	Bull thistle	FACU
<i>Claytonia parviflora</i>	Miner's lettuce	FACU
<i>Collinsia heterophylla</i>	Purple chinese houses	UPL
<i>Croton setiger</i>	Turkey-mullein	UPL
<i>Cyperus eragrostis</i>	Tall nutsedge	FACW
<i>Elymus glaucus</i>	Blue wildrye	FACU
<i>Epilobium brachycarpum</i>	Panicked willow-herb	UPL
<i>Equisetum arvense</i>	Common horsetail	FAC
<i>Erodium botrys</i>	Broad-leaved filaree	FACU
<i>Festuca perennis</i>	Rye grass	FAC
<i>Hordeum murinum</i>	Foxtail barley	FAC
<i>Juncus balticus</i>	Baltic rush	FACW
<i>Lactuca serriola</i>	Prickly lettuce	FACU
<i>Lupinus bicolor</i>	Bicolored lupine	UPL
<i>Malva parviflora</i>	Cheeseweed	UPL
<i>Medicago polymorpha</i>	Bur clover	FACU
<i>Persicaria lapathifolia</i>	Common knotweed	FACW
<i>Phalaris aquatica</i>	Harding grass	FACU
<i>Pinus sabiniana</i>	Foothill pine	UPL
<i>Plantago lanceolata</i>	English plantain	FAC
<i>Populus fremontii</i>	Fremont cottonwood	FAC
<i>Prunus</i> sp.	Cultivated prunus	UPL
<i>Quercus douglasii</i>	Blue oak	UPL
<i>Quercus lobata</i>	Valley oak	FACU
<i>Quercus wislizeni</i>	Interior live oak	UPL
<i>Ranunculus californicus</i>	California buttercup	UPL
<i>Raphanus sativus</i>	Radish	UPL
<i>Rosa californica</i>	California wild rose	FAC
<i>Rubus armeniacus</i>	Himalayan blackberry	FAC
<i>Rumex crispus</i>	Curly dock	FAC
<i>Salix gooddingii</i>	Black willow	FACW

<i>Schoenoplectus acutus</i>	Hardstem bulrush	OBL
<i>Sonchus asper</i>	Spiny sowthistle	FAC
<i>Taraxacum officinale</i>	Common dandelion	FACU
<i>Tragopogon porrifolius</i>	Purple salsify	UPL
<i>Trifolium hirtum</i>	Rose clover	UPL
<i>Triteleia hyacinthina</i>	Wild hyacinth	UPL
<i>Torilis arvensis</i>	Field hedge parsley	UPL
<i>Toxicodendron diversilobum</i>	Poison oak	FACU
<i>Typha latifolia</i>	Broad-leaved cattail	OBL
<i>Vicia villosa</i> subsp. <i>villosa</i>	Winter vetch	UPL
<i>Vitus californica</i>	California grape	FACU

Attachment E

GIS Shapefiles and the Aquatic Resources Excel Spreadsheet (on CD)

Attachment F

Permission to Enter

Regulatory Project Manager
U.S. Army Corps of Engineers
Sacramento District Regulatory Division
1325 J Street, Room 1480
Sacramento, CA 95814

Re: Tuolumne Affordable Housing Project

This letter serves as written permission to enter the Tuolumne Affordable Housing Study Area shown on Attachment B when accompanied by Madrone Ecological Consulting, LLC (Madrone) staff. When accompanied by Madrone staff, you may dig soil pits by hand and collect plant materials related to the verification of potential Waters of the U.S. on the subject property. If you have any questions, please contact Ben Watson at Madrone (916) 822-3230 or bwatson@madroneeco.com.

Sincerely,

APPENDIX C
CULTURAL RESOURCES TECHNICAL MEMORANDUM



CULTURAL RESOURCES TECHNICAL MEMORANDUM

Date: July 9, 2021
To: BaseCamp Environmental, Inc.
From: Solano Archaeological Services, LLC
Subject: Cultural Resources Inventory and Evaluation - Tuolumne Affordable Housing Project,
East Sonora, Tuolumne County, California

INTRODUCTION

This technical memorandum summarizes cultural resources background research, Native American community outreach, pedestrian survey, and research findings for the Tuolumne Affordable Housing Project (the Project) located in Tuolumne County, California. The Project is subject to California Environmental Quality Act (CEQA) requirements, and Solano Archaeological Services, LLC (SAS) has prepared this memorandum to support those needs.

PROJECT LOCATION

The project area is located at 20080 North Cedar Road, at the northwestern corner of the intersection of Cedar Road and Cabezut Road in the community of East Sonora in unincorporated Tuolumne County. The project area is situated on the U.S. Geological Survey (USGS) *Standard, California*, 7.5-minute quadrangle map in Township 2 North, Range 15 East, Section 31 (Attachment A, Figures 1–3).

PROJECT DESCRIPTION

The Project will result in the construction of an apartment complex consisting of five buildings on a 5.93-acre (ac.) undeveloped site in East Sonora. Four buildings would have a total of 84 apartment units, ranging in size from one bedroom to three bedrooms and the fifth building would serve as a clubhouse for apartment residents. All units are intended to be offered at a rent affordable to households making 30–50% of the local Area Median Income.

The Project includes the installation of 80 parking spaces available to residents and visitors. Four additional parking spaces would be available for office and daycare use, for a total of 84 parking spaces located throughout the development. Access to the facilities would be provided by a gated driveway off Cedar Road near the clubhouse building. Emergency vehicle access would be provided at the northern end of the project area off Phoebe Lane.

Landscaping would be incorporated throughout the development, mainly around the buildings which would connect to existing water and sanitary sewer lines in the vicinity. Stormwater from the project area

would be conveyed into a new, on-site detention basin prior to being discharged into Sonora Creek at a rate that would mimic existing rates of run-off from the site.

The Project would require grading to accommodate the buildings and parking areas, and would be conducted in accordance with the Tuolumne County Grading Ordinance. To the extent feasible, existing trees would remain on the project area but some would need to be removed to accommodate development.

REGULATORY SETTING

As a discretionary effort, the Project is subject to CEQA which requires that public agencies having authority to finance or approve public or private projects assess the effects of those projects on cultural resources. Cultural resources include buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. CEQA states that if a proposed project would result in an effect that may cause a substantial adverse change in the significance of a significant cultural resource (termed a “historical resource”), alternative plans or mitigation measures must be considered. Because only significant cultural resources need to be addressed, the significance of cultural resources must be determined before mitigation measures are developed.

CEQA §5024.1 (Public Resources Code §5024.1) and §15064.5 of the State CEQA Guidelines (14 California Code of Regulations [CCR] §15064.5) define a *historical resource* as “a resource listed or eligible for listing on the California Register of Historical Resources.” A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

- 1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- 2) Is associated with the lives of persons important to our past;
- 3) Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values; or
- 4) Has yielded, or may be likely to yield, information important to prehistory or history.

In addition, CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, and “unique archaeological resources.” An archaeological resource is considered “unique” if it:

- Is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory;
- Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods (Public Resources Code §21083.2).

According to the State CEQA Guidelines, a project with an impact that may cause a substantial adverse change in the significance of a historical resource, or a unique archaeological resource, is a project that

may have a significant effect on the environment (14 CCR §15064.5[b]). CEQA further states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

The State CEQA Guidelines (14 CCR §15064.5[e]) also require that excavation activities be stopped whenever human remains are uncovered, and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of a Native American, the Native American Heritage Commission must be contacted within 24 hours, and the provisions for treating or disposing of the remains and any associated grave goods as described in CCR §15064.5 must be followed.

NATURAL AND CULTURAL SETTING

Existing Environment

The project area is located in the Sierra Nevada foothills at an elevation of 1,976 feet (ft.) above mean sea level (amsl). The natural environment is characterized by oak woodlands and annual grasses with the channel of Sonora Creek being located immediately west of the project area. Blue Oak dominates the landscape with scattered live and valley oak also present (see Kuchler 1977). A wide variety of fauna, including mule deer, western gray squirrel, ground squirrel, and rabbits are found in Blue Oak woodlands and would have been exploited by early Native American populations (Ritter 1998; Storer and Usinger 1963). In addition, Sonora Creek would have supported a variety of both faunal and floral species and may have been a focus of early Native American subsistence activities (see Baumhoff 1963; Heizer and Elsasser 1980).

Prehistoric Setting

Longstanding assumptions (see Fredrickson 1973, 1974, 1993) regarding the basic projectile point sequence of the central Sierra Nevada and accompanying cultural patterns have recently undergone major revision (see Rosenthal 2006). This research has shed new light on some of the least understood time periods of Native American occupation of the region between 6,500 to 3,000 years before the present day (BP) and has led to a reassessment of previously established cultural chronologies. Based on a large-scale analysis of assemblages from the greater Sonora region, Rosenthal (2006) has proposed the following regional chronological sequence:

- Recent Prehistoric II 610–100
- Recent Prehistoric I 1100–610
- Late Archaic 3,000–1,100
- Middle Archaic 7,000–3,000
- Early Archaic 11,500–7,000

The major division in the archaeological record in this scheme is between the Archaic and Recent Prehistoric periods. The Archaic represents a long-term, stable period characterized by small, highly-mobile social groups who followed seasonal rounds, moving into the coniferous forest uplands in the summer and returning to base camps in the lower foothill regions for fall and winter. Although acorns were used, gray pine nuts were the most important local plant food during this period and so milling stones and hand stones were the dominant milling tools rather than mortars and pestles. Apart from

milling technology, the Archaic phases are differentiated predominately on the basis of shifts in projectile point styles.

The Recent Prehistoric periods reflect an important change in the use of the Sierran foothills. The Recent Prehistoric I period is marked by small, corner-notched, or contracting-stemmed arrow points recovered from widely scattered contexts throughout the foothills. This period has therefore been difficult to isolate in discrete components which would provide a wider range of associated artifacts. Excavations at many Recent Prehistoric II sites, marked by the presence of Desert Side-notched and Cottonwood series arrow points, point to a clear population increase fueled by more intensive use of acorns and a wider range of plant foods, with an accompanying switch from milling slabs and hand stones to mortars and pestles, particularly bedrock mortars. The considerable labor investment in forming bedrock mortars, plus the prevalence of well-developed refuse middens, indicate more permanent occupations and increased territoriality (Rosenthal et al. 2006). It was during the latter phases of the Recent Prehistoric II period that sustained contact with Euro-Americans led to significant changes in the life-ways of the native population.

Ethnographic Setting

The project area and vicinity were traditionally occupied by the Central Sierra Miwok, a Miwokan subgroup of the Penutian language family (Hull 2007). It is estimated that the Miwok entered the Sierra Nevada region sometime within the last 500 to 800 years (Moratto 1984:312). At the time of initial European contact, the Central Sierra Miwok inhabited lands that included the foothill and mountain portions of the Stanislaus and Tuolumne drainages. It was estimated that the pre-contact population was approximately 4,400 individuals, with a dramatic decline in population because of the influx of miners following the Gold Rush in 1849.

Permanent village sites were typically located near sources of water, such as springs and small creeks (e.g., Sonora Creek), and were situated below the snowline at about 2,000 to 3,000 ft. amsl. Subsistence focused on hunting, fishing, and the gathering of wild plants, seeds, and nuts. During the summer and fall, groups would travel to higher elevations to obtain seasonal plant and animal foods (Hull 2007; see also Rosenthal et al. 2006). The primary source of protein was the mule deer, but black bear and grizzly bear were also hunted. Game birds, including valley and mountain quail, were hunted or trapped, as were cottontails and jackrabbits. The staple plant food source was the acorns, which were gathered after ripening and falling off the oak tree. The Sierran Miwok also gathered buckeye, pine nuts, wild oats, and various roots and berries which were available seasonally (Levy 1978). Granite and basalt outcroppings in the region facilitated the processing of these plant resources. Mortars were formed in the bedrock where the seeds, nuts, and small mammals were processed by using a cobble pestle (Hull 2007).

The Central Sierra Miwok's primary residences were conical structures built with bark slabs arranged to form a cone with no internal supports or framework. Cooking hearths were typically located in the center of the houses, with earthen ovens adjacent. Two types of assembly structures were used for various occasions; a semi-subterranean earth lodge was used as the focal point for social gatherings and rituals, and a smaller, circular brush structure with a pine needle roof and was used for mourning ceremonies held in the summer. (Levy 1978).

The Central Sierra Miwok trade system included various resources that were exchanged with neighboring tribes and was generally characterized by the movement of goods from east to west. For example, obsidian and salt that originated in the Great Basin region were traded west to the Sierra Miwok who then exchanged them with the Plains Miwok in the Central Valley.

Historic Setting

Although Spanish and Mexican explorers or fur trappers and traders likely travelled through the Sonora area during the early decades of the 19th century, sustained Euro-American settlement did not occur until after 1848 and the beginning of the California Gold Rush. The first miners in the area—known as the Sonoranians—were often Mexican veterans of the Mexican-American War (1846–1848) and miners from the Mexican state of Sonora (see Kyle 1990). The Sonoranians were skilled at finding placer gold deposits, which made their camps an inviting target for American miners who considered California their territory regardless. One such Sonoranian camp, called the Sonoran Camp, was located on Wood's Creek at the site of present-day Sonora High School. Although the Sonoranians tried to keep their claims secret, additional local miners soon discovered their rich diggings along with others along a nearby branch of Woods Creek (later named Sonora Creek). American and immigrant miners soon established a camp known as Scott Town that was located in the area of present-day Coffill Park. The two camps, Sonoran Camp and Scott Town, defined the boundaries of what would become the City of Sonora, and the area was soon populated with gold seekers and merchants who supplied goods and services to the booming population (see Gudde 1975).

Although mining was the predominant industry during the early years of the Gold Rush, not long after the establishment of Sonora Camp and Scott Town, locally-available timber began being cut and milled to support the burgeoning towns. The forested hills caught the attention of Henri Charbonelle and Company, which opened a steam sawmill near the intersection of modern-day Washington and Church streets. The abundant supply of lumber soon brought other sawmills into the area and by 1852 Sonora was a well-established town.

However, mining was and still is a “boom and bust” business and many factors affected the size of mining operations and the personnel required to work them. One such factor that impacted Sonora's miners and the population size was a law enacted in 1850 requiring foreign miners to pay a monthly license fee of \$20 to mine gold in California. The legislation enraged foreign miners, primarily Mexicans, who could not afford to pay the tax. Thousands of miners left the area, and their departure triggered a massive depression in Sonora and other gold camps in Tuolumne County. A year later, the law was repealed and replaced with a more reasonable mining tax.

The 1860s saw another shift in population and continued economic downturn. When the easily available surface gold was exhausted, many people left Tuolumne County. Additionally, the Civil War had broken out and men left to fight in the war. The slowdown in gold mining and the declining population served to create a major drain on the local economy. During this time and into the early 1870s, large numbers of Chinese miners came to Sonora to work the abandoned placer mines. Many stayed and settled in the area east of Stewart Street, between Lyons and East Bradford streets, which eventually became known as Sonora's Chinatown.

Following the decline of gold mining and well into the 1880s, Sonora's economy was based primarily on farming and ranching, lumber production, and a slowly growing tourist trade. In the late 1880s and early

1890s, improved machinery and mining techniques made hard-rock quartz mining much more profitable, which resulted in a second “gold rush” within the region. The population grew rapidly as new quartz mills and businesses were established and new homes for the miners were constructed. Sonora’s growth was further fueled by the arrival of the Sierra Railroad and the birth of giant lumber companies whose tax revenues provided funding for a county hospital, a new courthouse, and local schools. The new prosperity also brought private sector investments that included construction of the Victoria Hotel in 1896 and the Bradford Building in 1903.

By World War I, gold mining had slowed once again, and many people moved to larger metropolitan areas to work in war-related industries. By the Great Depression, most of Sonora’s industry had come to a halt, and the County waited for over a decade to see an upturn in the local economy. That upturn would come shortly after the end of World War II. In 1948, the 100-year anniversary of the discovery of gold brought a renewed interest in the regional historic gold towns and Sonora became a major tourist destination. Today, Sonora remains the center of commerce for the region, and the City’s historic downtown, shops, Gold Rush-era buildings, and restaurants attract large numbers of visitors to the area each year (City of Sonora 2007).

NATIVE AMERICAN COMMUNITY OUTREACH

The consideration of potential Project impacts to Native American cultural resources is required under CEQA. To determine if any significant Native American properties are situated within or near the project area and to assist in addressing any tribal concerns, SAS contacted the Native American Heritage Commission (NAHC) via an emailed letter on June 11, 2021. This letter requested a search of the Sacred Lands File (SLF) and a list of appropriate Native American tribal contacts for the proposed Project (Attachment B). On July 5, 2021, Ms. Sarah Fonseca, Cultural Resources Analyst for the NAHC, replied that a search of the SLF did not reveal the presence of any known Native American sites or properties within or near the project area. Ms. Fonseca also supplied a list of Native American tribal representatives to contact regarding project recommendations and information on unrecorded cultural resources that may exist within or in the vicinity of the project area. On July 7, 2021, SAS mailed letters to the following individuals and organizations identified by the NAHC:

- Joey Garfield, Tribal Archaeologist – Tule River Indian Tribe
- Kerri Vera, Environmental Department – Tule River Indian Tribe
- Neil Peyron, Chair – Tule River Indian Tribe
- Lloyd Mathiesen, Chair - Chicken Ranch Rancheria of Me-Wuk Indians
- Cosme Valdez, Chair - Nashville Enterprise Miwok-Maidu-Nishinam Tribe
- Kenneth Woodrow, Chair - Wuksache Indian Tribe/Eshom Valley Band

As of this report, no replies have been received from any of the NAHC-listed tribal contacts. If any responses are received, SAS will provide a summary of the new data and interactions in an addendum to this report.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM RECORDS SEARCH

On June 15, 2021, the Central California Information Center (CCIC), of the California Historical Resources System at California State University, Stanislaus, provided the results of a record search to SAS (Attachment C). The CCIC conducted a search of its archives (I.C. file No. 11821O) for information

on previously known or recorded cultural resources within the project area and a ¼-mile radius. The CCIC review included but was not necessarily restricted to the following sources:

- the *National Register of Historic Places* (Historic Properties Directory, California Office of Historic Preservation 2002 and updates);
- the *California Register of Historic Places* (Historic Properties Directory, California Office of Historic Preservation 2002 and updates);
- the *California Historical Landmarks* (California Office of Historic Preservation 1996);
- the *California Points of Historical Interest* (California Office of Historic Preservation 1992);
- the *California Inventory of Historic Resources* (California Department of Parks and Recreation 1976 and updates); and
- pertinent historical inventories including historic maps and plat maps.

According to the CCIC, no documented cultural resources have been documented with the Project site, but five resources have been recorded in the ¼-mile buffer area (Table 1). The CCIC also identified three previous investigations which included at least a portion of the Project site (Table 2), and an additional 11 investigations which were conducted outside the Project site, but within the ¼-mile search area. Record search results are included in Attachment B.

Table 1. Previously Documented Resources in the 1/4-Mile Search Area.

Site No. (P-55-)	Site Type	Site Description	Most Recent Recording
001788	Prehistoric	Lithic scatter, bedrock mortars	1978 - L.K. Napton, CSU Stanislaus
001940	Prehistoric, Historic-era	Bedrock mortars, trash scatter, fences, walls	1986 - L.K. Napton, CSU Stanislaus
003434	Historic-era	Water conveyance ditch	1990 - Professional Arch. Svcs.
003435	Prehistoric	Bedrock mortars	1990 - Professional Arch. Svcs.
007403	Historic-era	RR grade, stone wall/fence	2005 - Far Western Anthro. Research Group

Table 2. Studies Previously Conducted in the Project Area

Report #	Author	Title	Date
TO-01221	L.K. Napton	Archaeological Survey of the Proposed Quail Hollow Housing Development Project, Sonora, Tuolumne County, California.	1978
TO-06171	S. Davis-King - Davis-King and Assoc.	Native American Ethnographic Research for Stages 1 and 2 of the East Sonora Bypass, State Route 108, PM R1.8/R6.9, Tuolumne County, California	2003
TO-08284	AECOM	Native American Ethnographic Research for Stages 1 and 2 of the East Sonora Bypass, State Route 108, PM R1.8/R6.9, Tuolumne County, California	2011

ADDITIONAL ARCHIVAL AND HISTORIC MAP RESEARCH

Starting in the early 1850s, the U.S. General Land Office (GLO) began conducting widespread mapping of lands within California, as well as throughout the western United States. These “plat” maps typically depicted major landforms, waterways, historic-era developments such as ranches, farms, and associated buildings, and occasionally provided assessments of the suitability of land for livestock grazing, agriculture, or timber harvesting. A review of the earliest available plat map of Township 2 North, Range 15 East (1882) does not show any developments within or immediately adjacent to the project area. However, the presence of mining in the general vicinity is reflected in the presence of “Street’s Ditch” (presumably a mining ditch) in the upper portion of the northeast ½ of Section 31 - outside of the project area.

Apart from surveying government lands, the GLO was also responsible for selling, granting, or otherwise transferring public lands to private, corporate, or institutional recipients. Numerous regulatory frameworks governed and provided for these transfers, some of which pre-dated the establishment of the GLO. One of the more significant acts that facilitated the Euro-American settlement of the American West was the Land Act of 1820, which was invoked in the transfers of government land within and near the project area. The Land Act of 1820 ended the ability of private individuals to purchase U.S. public domain lands on a credit or installment system over four years, as established under previous acts. The new act required full payment at the time of purchase but to encourage more sales and make them more affordable, Congress also reduced both the minimum price from \$2.00 to \$1.25 per ac., and the minimum size of a standard tract from 160 to 80 ac.

During the latter decades of the 19th century, the GLO transferred lands in the north ½ of Section 31 to several individuals. In 1874, Miguel Morel received the east ½ of the northeast ¼ (adjacent to the project area) and John Wolfgang obtained the southeast ¼ of the northwest ¼ (also adjacent to the project area). Both obtained their property under the Land Act of 1820. That same year, John G. Greeley purchased a patent of 160 ac. that included the Project site. Greeley obtained his property under the 1862 Morrill Land Grant College Act (12 Stat. 503). In the late 1850s, Vermont Republican Senator Justin Morrill promoted the notion of providing land grants to states for the express purpose of creating industrial and agricultural colleges. The act was finally passed in 1862 and provided that 30,000 acres of public lands be assigned to each state for each of its senators and representatives (or land scrip in an equivalent amount issued to states lacking available public lands). The proceeds of the land sales were to be invested to support a college “...to teach such branches of learning as are related to agriculture and the mechanic arts, as well as military tactics...in order to promote the liberal and practical education of the industrial classes”. (Library of Congress 2017).

Additional lands immediately adjacent to the project area were granted to Robert Dickson in 1877. His 76-ac. grant included the northwest ¼ of the northeast ¼ of Section 31 and may have incorporated a very small portion of the project area. As often happened with GLO-granted lands, the recipients did not necessarily develop the property. Under some acts, this led to the acreage reverting back to government ownership but lands that were outright purchased could remain with the buyer with few if any conditions. This appears to have occurred with Miguel Morel, John Wolfgang, John G. Greeley, and Robert Dickson since no early mapping (e.g., GLO plats) show any buildings or structures on the property that might be related to their purchases.

In addition to a review of GLO plat maps and patent records, SAS examined historic aerial photographs and early USGS topographic quadrangle maps showing the project area. The earliest photos date to 1945, and 1946 and do not appear to show any development within the project area. The next earliest aerial photos date to the late 1990s. The USGS mapping dates to as early as 1949 and depicts a building at roughly the location of present-day 20080 Cedar Road. According to the topographic mapping, this building was in place through the 1980s but was apparently demolished shortly thereafter when the existing building at 20080 Cedar Road was constructed.

FIELD SURVEY

Methods and Results

On June 22, 2021, SAS archaeologist Dustin Pollard conducted an intensive pedestrian survey of the project area using transects spaced no greater than 15 meters apart. The project area is presently undeveloped, heavily overgrown with brambles and oak woodland, and perennial grasses in open areas. No traces of the possible historic building or structure depicted on early USGS mapping was noted in the project area. In addition, no signs of present-day developments or significant disturbances were noted, and no prehistoric or historic-era sites, features, or artifacts were documented.

SUMMARY AND RECOMMENDATIONS

The NAHC SLF review indicated that no recorded sacred lands were known to exist within or near the project area. The CCIC record search demonstrated that while no previously documented cultural resources have been identified within or immediately adjacent to the project area, five resources, including prehistoric sites, were recorded within the ¼-mi. search radius. Additional research showed some mid-20th century development (e.g., building depicted on late 1940s USGS mapping) occurred in the project area, but it appears to have been demolished by construction of the building presently at 20080 Cedar Road. However, the project area is located immediately adjacent to Sonora Creek. Creeks and other perennial water sources were major attractions to prehistoric peoples and early Native American sites have been identified along the creek in the vicinity of the project area. Consequently, the project area is considered sensitive for retaining prehistoric cultural and SAS recommends archaeological monitoring of initial Project-related ground disturbances.

In the event that buried archaeological deposits are encountered during any Project-associated construction activity, work must cease within a 50-ft. radius of the discovery. The Project proponent must retain a qualified professional archaeologist to document the discovery, assess its significance, and recommend treatment. If human remains or any associated funerary artifacts are discovered during construction, all work must cease within 50 ft. of the discovery. In accordance with the California Health and Safety Code (Section 7050.5), the Tuolumne County Sheriff/Coroner must be contacted immediately. If the Coroner determines the remains to be Native American, the Coroner will notify the Native American Heritage Commission, which will in turn appoint a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the project proponent and a qualified archaeologist to determine the proper treatment of the human remains and any associated funerary objects. Construction activities will not resume until either the human remains are exhumed, or the remains are avoided via Project construction design change.

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ATTACHMENT A

Project Maps

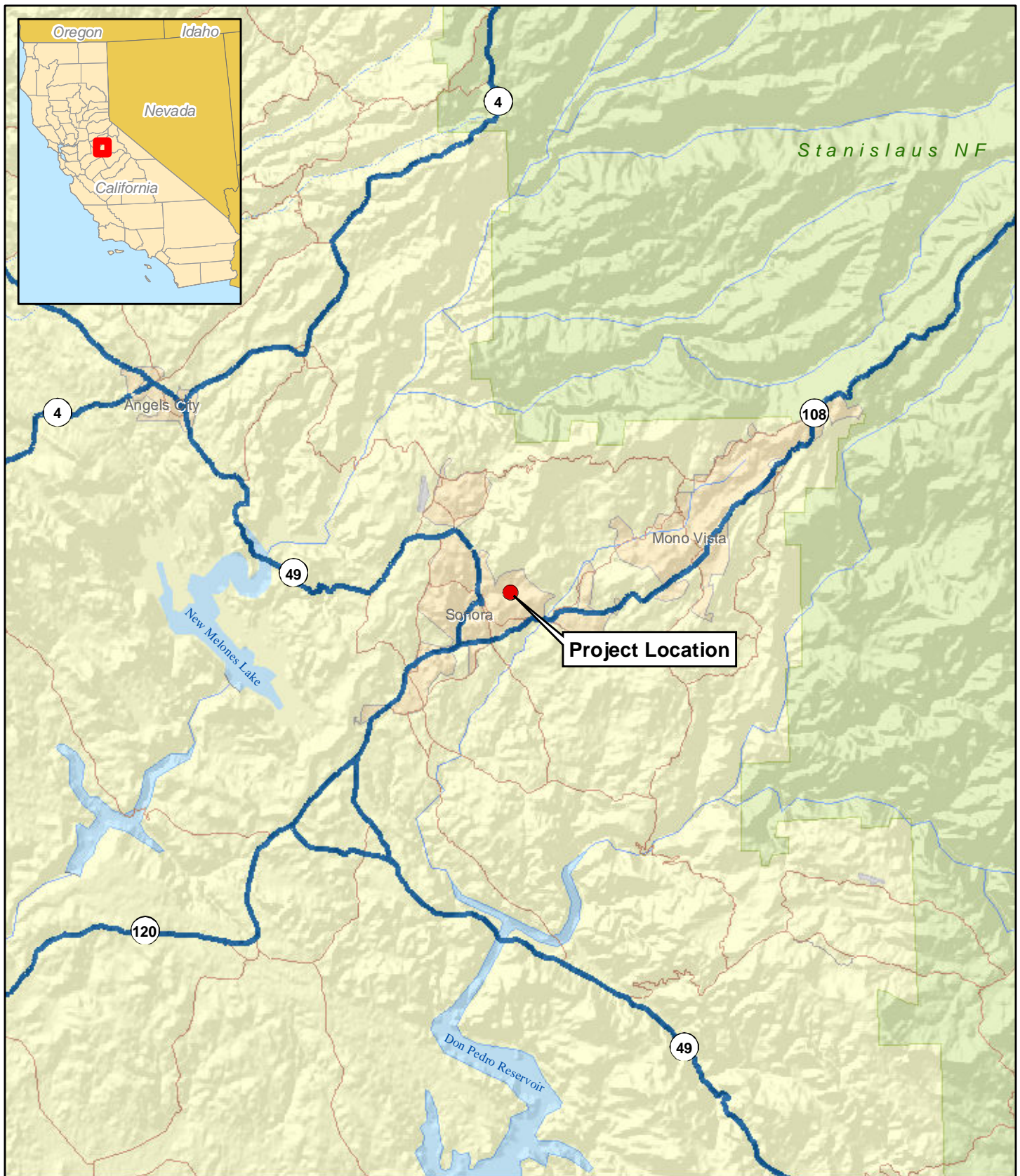


Figure 1. Project Vicinity Map.

● Tuolumne Affordable Housing Project Area

Sources: USA Base Map [layer], Data and Maps [CD]. ESRI, 2006.

1:250,000

0 3 Miles

0 6 Kilometers



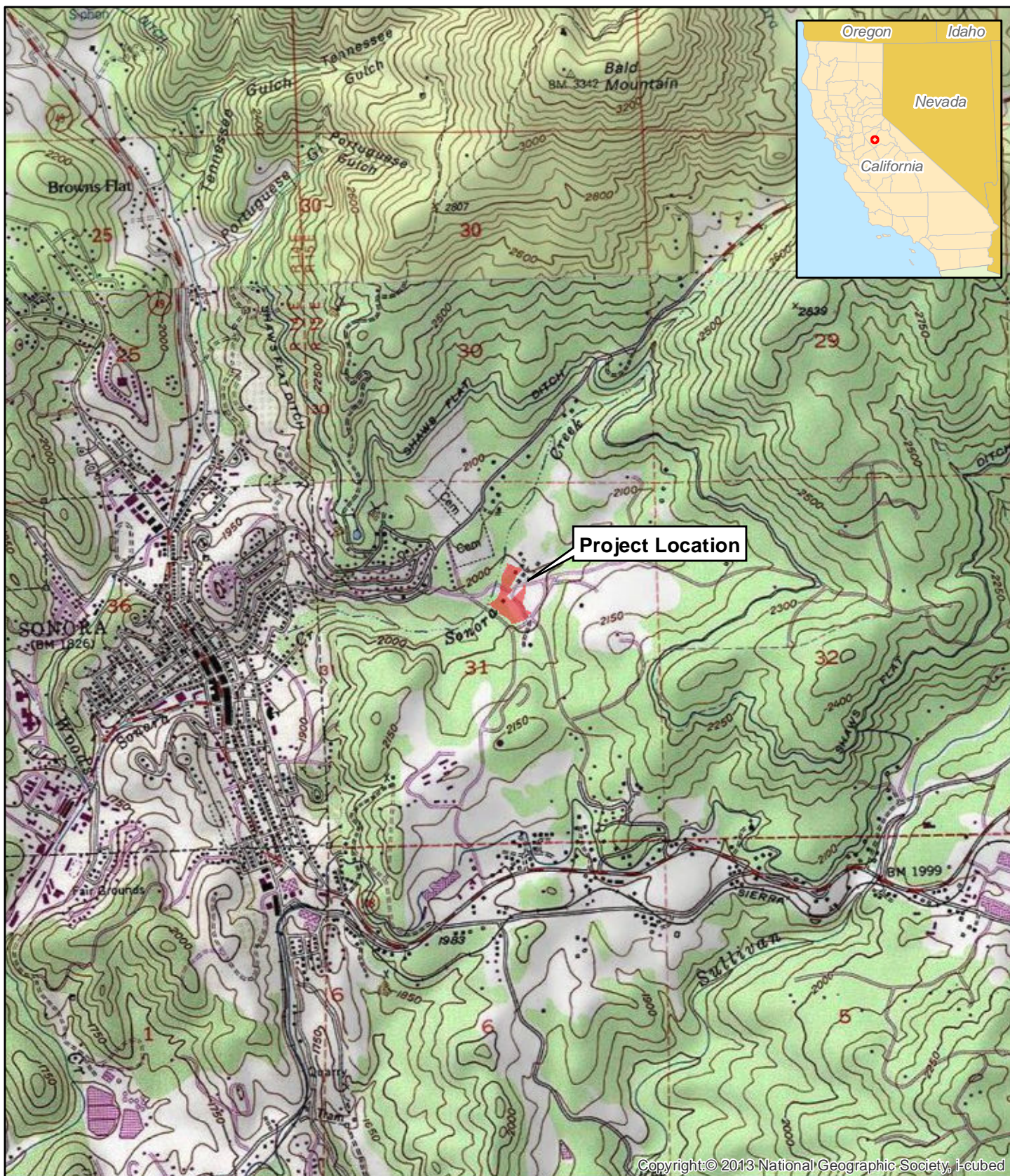


Figure 2. Project Location Map.

1:24,000

■ Tuolumne Affordable Housing Project Area

0.5

_____ Miles

1


_____ Kilometers

T02N, R15E, Section 31.
Standard 7.5' Series Quadrangle, USGS, 1960.





Figure 3. Project Area Map.

 Tuolumne Affordable Housing Project Area

Total Acres: 5.84

1:2,400

0 200 Feet

0 100 Meters



ATTACHMENT B

Native American Community Outreach - Correspondence



June 11, 2021

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691

Re: Tuolumne Affordable Housing Project, Tuolumne County, California

To Whom It May Concern:

BaseCamp Environmental, Inc., has retained Solano Archaeological Services to conduct a CEQA level cultural resources inventory of an approximate 6.0-acre parcel (APN 044-420-37-00) proposed for affordable housing. The project area lies in the City of Sonora, Tuolumne County, California, and on the *Standard, California* topographic 7.5-minute quadrangle in Township 2 North, R 15 East, Section 31. Please find the enclosed topographic map illustrating the project area location.

A cultural resources inventory will include a pedestrian survey of the project area. Before we commence fieldwork, however, we would like to request a Sacred Lands File review for any known cultural properties or locations in or near the project area. We would also like to request a list of Native American individuals/organizations that may have knowledge of cultural resources in the project area, or that might have an interest in or concerns with the proposed Project. Please know that this request and any subsequent outreach with local tribal representatives is for CEQA planning purposes only, and is not part of any SB-18 or AB-52 review.

Please email the results of a Sacred Lands File review and a list of tribal contacts to Brian@solanoarchaeology.com. If you have any questions, feel free to contact me at the email provide above or by phone at 530-417-7007.

Sincerely,

Brian Ludwig
Principal Investigator

Enc. Project location map

Native American Heritage Commission
Native American Contact List
Tuolumne County
7/5/2021

**Chicken Ranch Rancheria of
Me-Wuk Indians**

Lloyd Mathiesen, Chairperson
P.O. Box 1159 Me-Wuk
Jamestown, CA, 95327
Phone: (209) 984 - 9066
Fax: (209) 984-9269
lmathiesen@crtribal.com

**Nashville Enterprise Miwok-
Maidu-Nishinam Tribe**

Cosme Valdez, Chairperson
P.O. Box 580986 Miwok
Elk Grove, CA, 95758-0017
Phone: (916) 429 - 8047
Fax: (916) 429-8047
valdezcome@comcast.net

Tule River Indian Tribe

Joey Garfield, Tribal Archaeologist
P. O. Box 589 Yokut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
joey.garfield@tulerivertribe-
nsn.gov

Tule River Indian Tribe

Kerri Vera, Environmental
Department
P. O. Box 589 Yokut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
kerri.vera@tulerivertribe-nsn.gov

Tule River Indian Tribe

Neil Peyron, Chairperson
P.O. Box 589 Yokut
Porterville, CA, 93258
Phone: (559) 781 - 4271
Fax: (559) 781-4610
neil.peyron@tulerivertribe-nsn.gov

**Wuksache Indian Tribe/Eshom
Valley Band**

Kenneth Woodrow, Chairperson
1179 Rock Haven Ct. Foothill Yokut
Salinas, CA, 93906 Mono
Phone: (831) 443 - 9702
kwood8934@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Tuolumne Affordable Housing Project, Tuolumne County.



NATIVE AMERICAN HERITAGE COMMISSION

July 5, 2021

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Brian Ludwig, PhD, Principal Investigator
Solano Archaeological Services

Via Email to: brian@solanoarchology.com

Re: Tuolumne Affordable Housing Project, Tuolumne County

Dear Dr. Ludwig:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Sarah.Fonseca@nahc.ca.gov.

Sincerely,

Sarah Fonseca
Cultural Resources Analyst

Attachment



July 7, 2021

Neal Peyron
Tule River Indian Tribe
P.O. Box 589
Porterville, CA 93258

Re: Tuolumne Affordable Housing Project, East Sonora, Tuolumne County, California

Dear Mr. Peyron:

BaseCamp Environmental, Inc., has retained Solano Archaeological Services to conduct a CEQA level cultural resources inventory of the approximately 5.84-acre Tuolumne Affordable Housing Project in the community of East Sonora, Tuolumne County, California (the Project). The project area lies on the *Standard, California* topographic 7.5-minute quadrangle in Township 2 North, Range 15 East, Section 31. Please find the enclosed topographic map illustrating the project area location.

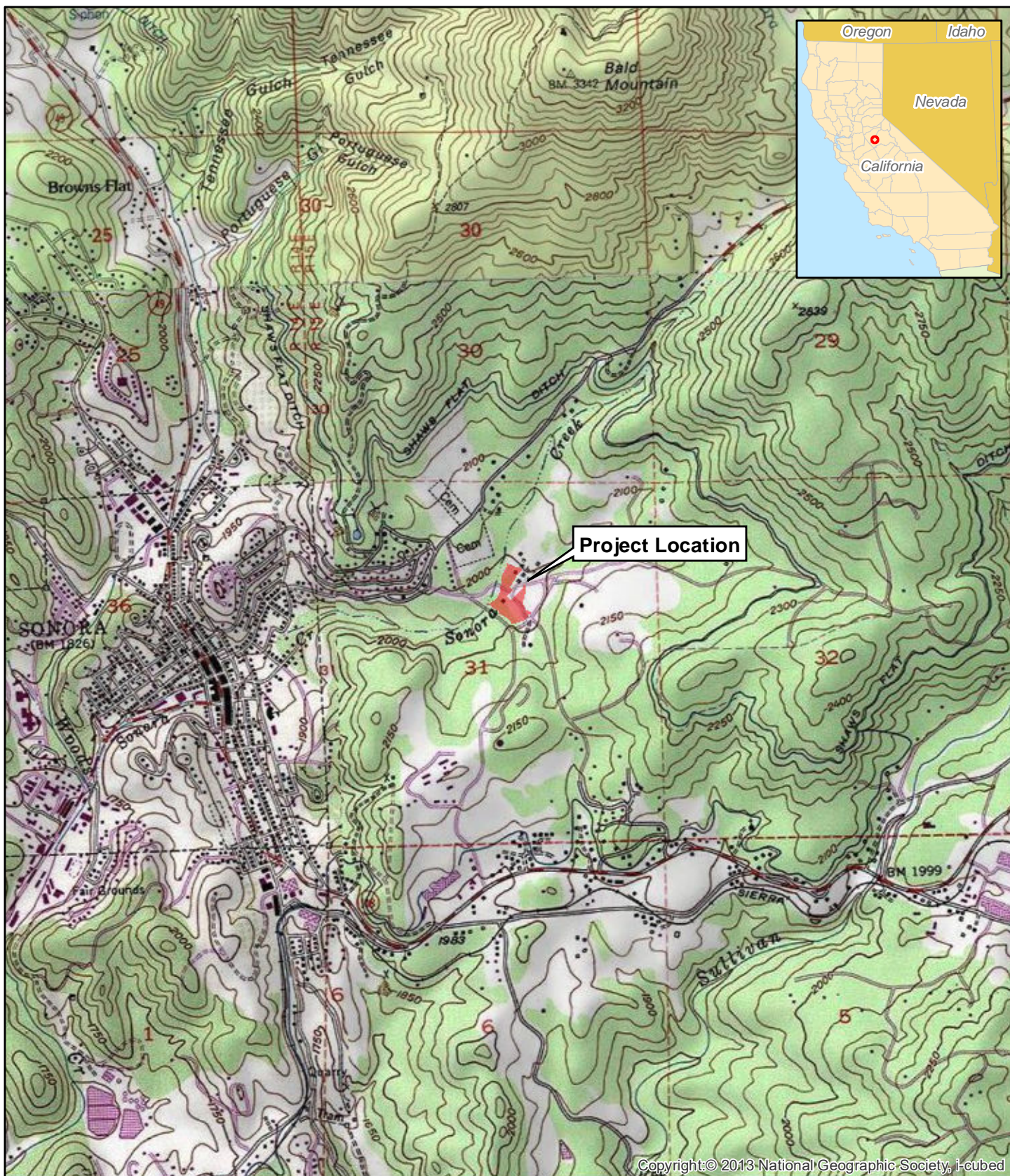
A cultural resources inventory will include a pedestrian survey of the project area and we would like to ask if you could provide any information on presently undocumented Native American cultural properties within or in the vicinity of the project area. Any input or recommendations you could provide for the Project would be greatly appreciated. This request is for CEQA planning purposes only, and is not part of any SB-18 or AB-52 review. For your information, the Native American Heritage Commission Sacred Lands File record search indicates that no documented culturally significant properties have been recorded in or near the project area.

If you have any questions or if you require any additional information, please feel free to contact me at your convenience. I can be reached via phone at 530-417-7007 or if you prefer by email at Brian@solanoarchaeology.com

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator

Enc. Project location map



Project Location Map

1:24,000

■ Tuolumne Affordable Housing Project Area

0.5

Miles

1

Kilometers

T02N, R15E, Section 31.
Standard 7.5' Series Quadrangle, USGS, 1960.



P.O. Box 367
Elmira, CA 95625



707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

July 7, 2021

Lloyd Mathiesen
Chicken Ranch Rancheria of Me-Wuk Indians
P.O. Box 1159
Jamestown, CA 95327

Re: Tuolumne Affordable Housing Project, East Sonora, Tuolumne County, California

Dear Mr. Mathiesen:

BaseCamp Environmental, Inc., has retained Solano Archaeological Services to conduct a CEQA level cultural resources inventory of the approximately 5.84-acre Tuolumne Affordable Housing Project in the community of East Sonora, Tuolumne County, California (the Project). The project area lies on the *Standard, California* topographic 7.5-minute quadrangle in Township 2 North, Range 15 East, Section 31. Please find the enclosed topographic map illustrating the project area location.

A cultural resources inventory will include a pedestrian survey of the project area and we would like to ask if you could provide any information on presently undocumented Native American cultural properties within or in the vicinity of the project area. Any input or recommendations you could provide for the Project would be greatly appreciated. This request is for CEQA planning purposes only, and is not part of any SB-18 or AB-52 review. For your information, the Native American Heritage Commission Sacred Lands File record search indicates that no documented culturally significant properties have been recorded in or near the project area.

If you have any questions or if you require any additional information, please feel free to contact me at your convenience. I can be reached via phone at 530-417-7007 or if you prefer by email at Brian@solanoarchaeology.com

Sincerely,

A handwritten signature in blue ink, which appears to read "Brian Ludwig".

Brian Ludwig, Ph.D.
Principal Investigator

Enc. Project location map

P.O. Box 367
Elmira, CA 95625



707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

July 7, 2021

Kerri Vera
Environmental Department
Tule River Indian Tribe
P.O. Box 589
Porterville, CA 93258

Re: Tuolumne Affordable Housing Project, East Sonora, Tuolumne County, California

Dear Ms. Vera:

BaseCamp Environmental, Inc., has retained Solano Archaeological Services to conduct a CEQA level cultural resources inventory of the approximately 5.84-acre Tuolumne Affordable Housing Project in the community of East Sonora, Tuolumne County, California (the Project). The project area lies on the *Standard, California* topographic 7.5-minute quadrangle in Township 2 North, Range 15 East, Section 31. Please find the enclosed topographic map illustrating the project area location.

A cultural resources inventory will include a pedestrian survey of the project area and we would like to ask if you could provide any information on presently undocumented Native American cultural properties within or in the vicinity of the project area. Any input or recommendations you could provide for the Project would be greatly appreciated. This request is for CEQA planning purposes only, and is not part of any SB-18 or AB-52 review. For your information, the Native American Heritage Commission Sacred Lands File record search indicates that no documented culturally significant properties have been recorded in or near the project area.

If you have any questions or if you require any additional information, please feel free to contact me at your convenience. I can be reached via phone at 530-417-7007 or if you prefer by email at Brian@solanoarchaeology.com

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator

Enc. Project location map



July 7, 2021

Kenneth Woodrow
Wuksache Indian Tribe/Eshom Valley Band
1179 Rock Haven Ct.
Salinas, CA 93906

Re: Tuolumne Affordable Housing Project, East Sonora, Tuolumne County, California

Dear Mr. Woodrow:

BaseCamp Environmental, Inc., has retained Solano Archaeological Services to conduct a CEQA level cultural resources inventory of the approximately 5.84-acre Tuolumne Affordable Housing Project in the community of East Sonora, Tuolumne County, California (the Project). The project area lies on the *Standard, California* topographic 7.5-minute quadrangle in Township 2 North, Range 15 East, Section 31. Please find the enclosed topographic map illustrating the project area location.

A cultural resources inventory will include a pedestrian survey of the project area and we would like to ask if you could provide any information on presently undocumented Native American cultural properties within or in the vicinity of the project area. Any input or recommendations you could provide for the Project would be greatly appreciated. This request is for CEQA planning purposes only, and is not part of any SB-18 or AB-52 review. For your information, the Native American Heritage Commission Sacred Lands File record search indicates that no documented culturally significant properties have been recorded in or near the project area.

If you have any questions or if you require any additional information, please feel free to contact me at your convenience. I can be reached via phone at 530-417-7007 or if you prefer by email at Brian@solanoarchaeology.com

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator

Enc. Project location map

P.O. Box 367
Elmira, CA 95625



707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

July 7, 2021

Joey Garfield
Tule River Indian Tribe
P.O. Box 589
Porterville, CA 93258

Re: Tuolumne Affordable Housing Project, East Sonora, Tuolumne County, California

Dear Mr. Garfield:

BaseCamp Environmental, Inc., has retained Solano Archaeological Services to conduct a CEQA level cultural resources inventory of the approximately 5.84-acre Tuolumne Affordable Housing Project in the community of East Sonora, Tuolumne County, California (the Project). The project area lies on the *Standard, California* topographic 7.5-minute quadrangle in Township 2 North, Range 15 East, Section 31. Please find the enclosed topographic map illustrating the project area location.

A cultural resources inventory will include a pedestrian survey of the project area and we would like to ask if you could provide any information on presently undocumented Native American cultural properties within or in the vicinity of the project area. Any input or recommendations you could provide for the Project would be greatly appreciated. This request is for CEQA planning purposes only, and is not part of any SB-18 or AB-52 review. For your information, the Native American Heritage Commission Sacred Lands File record search indicates that no documented culturally significant properties have been recorded in or near the project area.

If you have any questions or if you require any additional information, please feel free to contact me at your convenience. I can be reached via phone at 530-417-7007 or if you prefer by email at Brian@solanoarchaeology.com

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator

Enc. Project location map

P.O. Box 367
Elmira, CA 95625



707-718-1416 ▲ Fax 707-451-4775
www.solanoarchaeology.com

July 7, 2021

Cosme Valdez
Nashville Enterprise Miwok-Maidu-Nishinam Tribe
P.O. Box 580986
Elk Grove, CA 95758

Re: Tuolumne Affordable Housing Project, East Sonora, Tuolumne County, California

Dear Mr. Valdez:

BaseCamp Environmental, Inc., has retained Solano Archaeological Services to conduct a CEQA level cultural resources inventory of the approximately 5.84-acre Tuolumne Affordable Housing Project in the community of East Sonora, Tuolumne County, California (the Project). The project area lies on the *Standard, California* topographic 7.5-minute quadrangle in Township 2 North, Range 15 East, Section 31. Please find the enclosed topographic map illustrating the project area location.

A cultural resources inventory will include a pedestrian survey of the project area and we would like to ask if you could provide any information on presently undocumented Native American cultural properties within or in the vicinity of the project area. Any input or recommendations you could provide for the Project would be greatly appreciated. This request is for CEQA planning purposes only, and is not part of any SB-18 or AB-52 review. For your information, the Native American Heritage Commission Sacred Lands File record search indicates that no documented culturally significant properties have been recorded in or near the project area.

If you have any questions or if you require any additional information, please feel free to contact me at your convenience. I can be reached via phone at 530-417-7007 or if you prefer by email at Brian@solanoarchaeology.com

Sincerely,

Brian Ludwig, Ph.D.
Principal Investigator

Enc. Project location map

ATTACHMENT C

CCIC Record Search Results



CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 6/15/2021

Records Search File No.: 118210
Project: Tuolumne Affordable Housing
City of Sonora

Jason Coleman
Solano Archaeological Services
P. O. Box 367
Elmira, CA 95625
707-718-1416 jason@solanoarchaeology.com

Dear Mr. Coleman:

The Central California Information Center received your record search request for the project area referenced above, located on the Standard 7.5' quadrangle in Tuolumne County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCalC, the locations of resources/reports are provided in the following format: ☒ custom GIS maps ☐ GIS Data/shape files ☐ hand-drawn maps

Summary Data:

Resources within the project area:	None formally reported to the Information Center.
Resources within the 1/4-mile radius:	5: P-55-001788, 1940, 3434, 3435, 7403
Reports within the project area:	3: TO-01221, 6171, 8284
Reports within the 1/4-mile radius:	11: TO-01097, 1224, 1225, 1227, 1228, 1229, 1292, 3717, 3730, 5976, 5994

Resource Database Printout (list):

Resource Database Printout (details):

Resource Digital Database Records:

Report Database Printout (list):

Report Database Printout (details):

Report Digital Database Records:

Resource Record Copies:

Report Copies:

OHP Historic Properties Directory: New Excel File: Built Environment Resource Directory (BERD)

☐ enclosed ☐ not requested ☐ nothing listed
☒ enclosed ☐ not requested ☐ nothing listed
☐ enclosed ☒ not requested ☐ nothing listed
☒ enclosed ☐ not requested ☐ nothing listed
☐ enclosed ☐ not requested ☐ nothing listed
☐ enclosed ☐ not requested ☐ nothing listed
☐ enclosed ☒ not requested ☒ nothing listed
on project
☐ enclosed ☒ not requested ☐ nothing listed

Dated 12/17/2019

Archaeological Determinations of Eligibility:

CA Inventory of Historic Resources (1976):

Caltrans Bridge Survey:

Ethnographic Information:

Historical Literature:

Historical Maps:

Local Inventories:

GLO and/or Rancho Plat Maps:

Shipwreck Inventory:

http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp

Soil Survey Maps:

<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

☐ enclosed ☐ not requested ☒ nothing listed

☐ enclosed ☐ not requested ☒ nothing listed

☐ enclosed ☐ not requested ☒ nothing listed

☐ enclosed ☒ not requested ☐ nothing listed

☐ enclosed ☒ not requested ☐ nothing listed

☐ enclosed ☒ not requested ☐ nothing listed

☐ enclosed ☒ not requested ☐ nothing listed

☐ enclosed ☒ not requested ☐ nothing listed

☐ enclosed ☒ not requested ☐ nothing listed

☒ not available at CCIC; please go to

☒ not available at CCIC; please go to

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *(\$376.50), payable within 60 days of receipt of the invoice.

If you wish to include payment by Credit Card, you must wait to receive the official invoice

from Financial Services so that you can reference the CMP # (Invoice Number), and then contact the link below:

<https://commerce.cashnet.com/ANTHROPOLOGY>

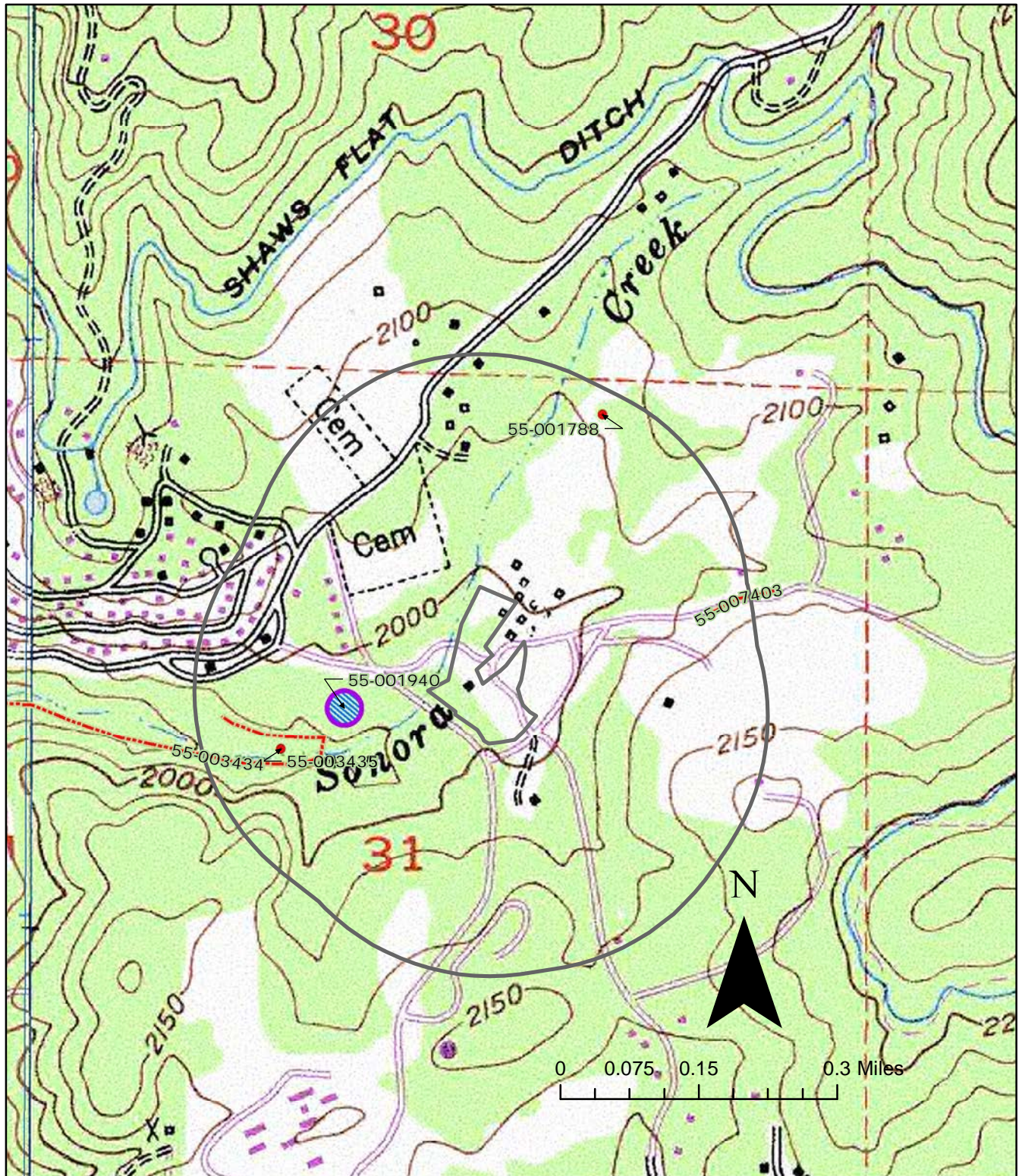
Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: ARBilling@csustan.edu, CSU Stanislaus Financial Services

CCaIC 118210 Tuolumne Affordable Housing
Resources 1/4-mile radius 1:10,000-scale
Standard USGS 7.5' Quadrangle



Resource Detail: P-55-001788

Identifying information

Primary No.: P-55-001788

Trinomial: CA-TUO-000777

Name: QUAIL HOLLOW

Other IDs:	Type	Name
	Resource Name	QUAIL HOLLOW

Cross-refs:

Attributes

Resource type: Site

Age: Prehistoric

Information base: Survey, Excavation

Attribute codes: AP02 (Lithic scatter) - Lithic scatter; AP04 (Bedrock milling feature) - Bedrock milling feature

Disclosure: Not for publication

Collections: Yes

Accession no(s):

Facility:

General notes

Recording events

Date	Recorder(s)	Affiliation	Notes
7/26/1978	NAPTON, GREATHOURE	Institute for Archaeological Research, California State College, Stanislaus	

Associated reports

Report No.	Year	Title	Affiliation
TO-01221	1978	Archaeological Survey of the Proposed Quail Hollow Housing Development Project, Sonora, Tuolumne County, California.	L. K. Napton, Ph. D.

Location information

County: Tuolumne

USGS quad(s): Standard

Address:

PLSS: T2N R15E NW of NE of Sec. 31 MDBM

UTMs: Zone 10 737500mE 4207950mN NAD27

Management status

Database record metadata

Date	User	
Entered: 5/9/2011	jay	
Last modified: 2/21/2017	Anthro	
IC actions:	Date	User
	5/9/2011	jay
	7/25/2015	Anthro

Action taken

Appended records from old OHP database.

IR

Record status:

Resource Detail: P-55-001940

Identifying information

Primary No.: P-55-001940

Trinomial: CA-TUO-000930/H

Name: Sonora Creek

Other IDs: Type

Name

Resource Name

Sonora Creek

Cross-refs:

Attributes

Resource type: Site

Age: Prehistoric, Historic

Information base: Survey

Attribute codes: AH04 (Privies/dumps/trash scatters) - midden; AH11 (Walls/fences) - Stone wall; AP02 (Lithic scatter) - Lithic scatter; AP04 (Bedrock milling feature) - Bedrock milling feature; AP16 (Other)

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

General notes

Recording events

Date	Recorder(s)	Affiliation	Notes
8/31/1986	L. K. Napton	California State University, Stanislaus, Institute for Archaeological Research	
2/6/1979	Napton	California State University, Stanislaus, Institute for Archaeological Research	

Associated reports

Report No.	Year	Title	Affiliation
TO-01225	1982	Cultural Resource Reconnaissance of Route "B", City of Sonora Waste Disposal System, Tuolumne County, California.	CSC Stanislaus, Institute for Archaeological Research, for Raymond Vail and Associates, Sacramento, CA
TO-01228	1986	Cultural Resource Investigations of the Sonora Terrace Apartments, Sonora, Tuolumne County, California.	CSU, Stanislaus Institute for Archaeological Research
TO-01229	1986	Cultural Resource Investigations of the Sonora Terrace Apartments Project, CA-TUO-000930/H, Sonora, California: Phase Two, Evaluation of Significance.	L. K. Napton, CSUS/IAR

Location information

County: Tuolumne

USGS quad(s): Standard

Address:

PLSS: T2N R15E SW¼ of NE¼ of Sec. 31 MDBM

UTMs: Zone 10 731100mE 4207350mN NAD27

Management status

Database record metadata

Date	User	Action taken
Entered: 5/9/2011	jay	
Last modified: 2/21/2017	Anthro	
IC actions: Date	User	Action taken
5/9/2011	jay	Appended records from old OHP database.

Resource Detail: P-55-001940

7/25/2015

Anthro

IR

Record status:

Resource Detail: P-55-003434

Identifying information

Primary No.: P-55-003434

Trinomial: CA-TUO-002460H

Name: VCE #2

Other IDs:	Type	Name
	Resource Name	VCE #2

Cross-refs:

Attributes

Resource type: Site

Age: Historic

Information base: Survey

Attribute codes: AH06 (Water conveyance system); AH09 (Mines/quarries/tailings); AH16 (Other)

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

General notes

Recording events

Date	Recorder(s)	Affiliation	Notes
4/1/1989	NEUENSCHWANDER, FARBER	Professional Archaeological Services	

Associated reports

Report No.	Year	Title	Affiliation
TO-01097	1990	Archaeological Survey of the Proposed Sunrise Hills Subdivision Sonora, Tuolumne County, California.	Professional Archaeological Services, for Planning Concepts, Nevada City, CA

Location information

County: Tuolumne

USGS quad(s): Sonora, Standard

Address:

PLSS: T2N R14E SE of NE of Sec. 36 MDBM
T2N R15E S½ of NW¼ of Sec. 31 MDBM

UTMs: Zone 10 730420mE 4207240mN NAD27
Zone 10 730660mE 4207420mN NAD27
Zone 10 731020mE 4207320mN NAD27

Management status

Database record metadata

Date	User	Action taken
Entered: 5/9/2011	jay	
Last modified: 2/16/2017	Anthro	
IC actions: Date	User	Action taken
5/9/2011	jay	Appended records from old OHP database.
8/18/2015	Anthro	IR

Record status:

Resource Detail: P-55-003435

Identifying information

Primary No.: P-55-003435

Trinomial: CA-TUO-002461

Name: VCE-3

<i>Other IDs:</i>	<i>Type</i>	<i>Name</i>
	Resource Name	VCE-3

Cross-refs:

Attributes

Resource type: Site

Age: Prehistoric

Information base: Survey

Attribute codes: AP04 (Bedrock milling feature)

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

General notes

Recording events

<i>Date</i>	<i>Recorder(s)</i>	<i>Affiliation</i>	<i>Notes</i>
4/1/1989	NEUENSCHWANDER/FAR-BER	Professional Archaeological Services	

Associated reports

<i>Report No.</i>	<i>Year</i>	<i>Title</i>	<i>Affiliation</i>
TO-01097	1990	Archaeological Survey of the Proposed Sunrise Hills Subdivision Sonora, Tuolumne County, California.	Professional Archaeological Services, for Planning Concepts, Nevada City, CA

Location information

County: Tuolumne

USGS quad(s): Standard

Address:

PLSS: T2N R15E SE of NW of Sec. 31 MDBM

UTMs: Zone 10 730950mE 4207425mN NAD27

Management status

Database record metadata

<i>Date</i>	<i>User</i>	
<i>Entered:</i> 5/9/2011	jay	
<i>Last modified:</i> 2/21/2017	Anthro	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>
	5/9/2011	jay
	7/28/2015	Anthro

Action taken

Appended records from old OHP database.

IR

Record status:

Resource Detail: P-55-007403

Identifying information

Primary No.: P-55-007403

Trinomial:

Name: CAB-1

Other IDs:	Type	Name
	Resource Name	CAB-1
	Other	Cabezut Road
	Other	CA-TUO-004829H

Cross-refs:

Attributes

Resource type: Site

Age: Historic

Information base: Survey

Attribute codes: AH07 (Roads/trails/railroad grades) - Road; AH11 (Walls/fences) - Rock fence/gate

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

General notes

Recording events

Date	Recorder(s)	Affiliation	Notes
7/13/2005	Darren Andolina	Far Western	

Associated reports

Report No.	Year	Title	Affiliation
TO-05976	2005	Cultural Resources Study for the Cabezut Road Development (APN 44-490-15), City of Sonora, Tuolumne County, California	Far Western Anthropological Research Group

Location information

County: Tuolumne

USGS quad(s): Standard

Address: Address	City	Assessor's parcel no.	Zip code
		44-490-15	

PLSS: T2N R15E SW¼ of NE¼ of Sec. 31 MDBM

UTMs: Zone 10 731691mE 4207557mN NAD27

Zone 10 731810mE 4207615mN NAD27

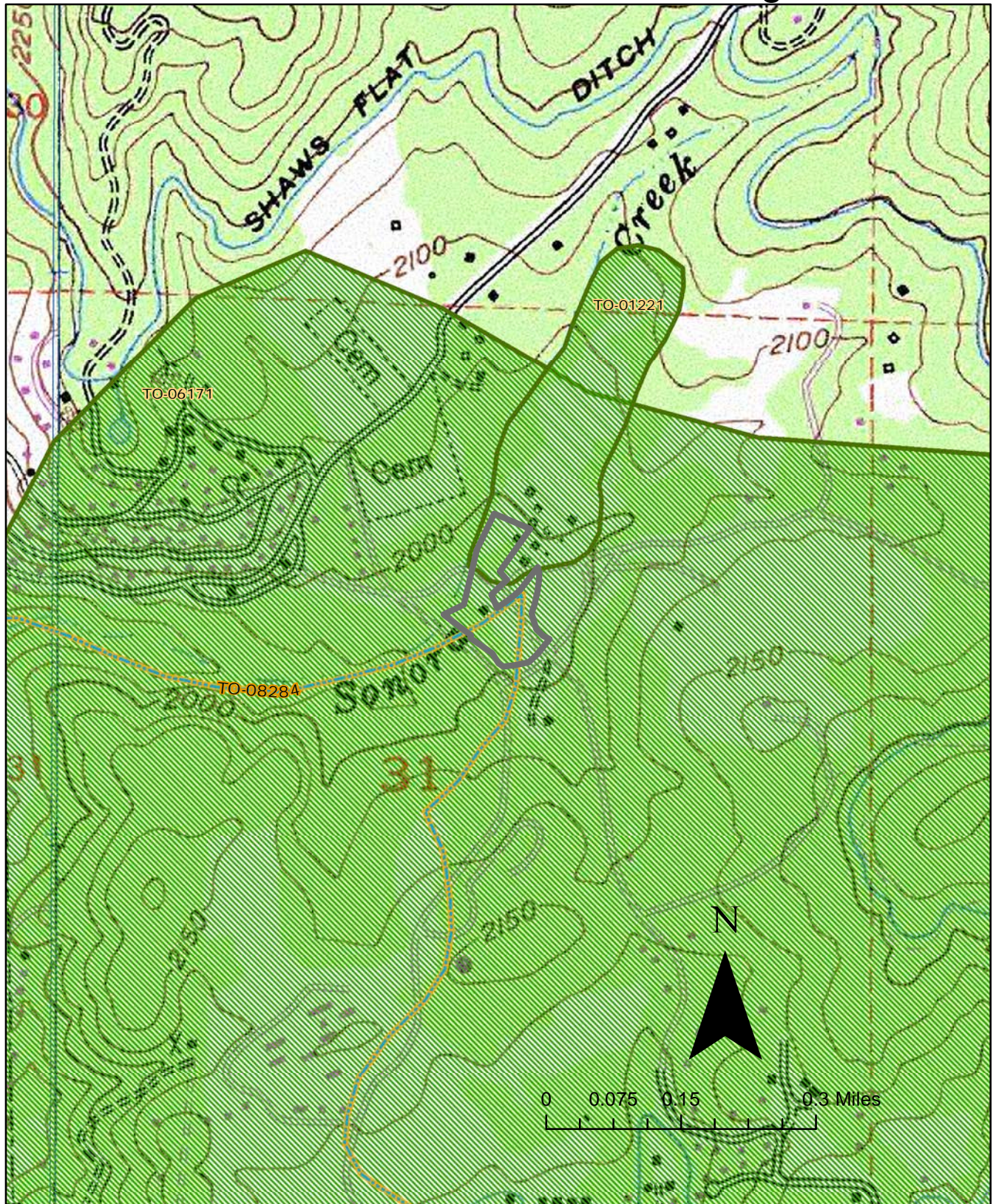
Management status

Database record metadata

Date	User	Action taken
Entered: 9/30/2013		
Last modified: 2/23/2017	Anthro	
IC actions: Date	User	Action taken
9/30/2013	jay	Added placeholder records to fill in primary number sequence.
8/6/2015	Anthro	IR

Record status:

CCaIC 118210 Tuolumne Affordable
Housing Reports on Project 1:10,000-scale
Standard 7.5' USGS Quadrangle



Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
TO-01097	NADB-R - 1362582	1990	Farber, A. L.	Archaeological Survey of the Proposed Sunrise Hills Subdivision Sonora, Tuolumne County, California.	Professional Archaeological Services, for Planning Concepts, Nevada City, CA	55-002318, 55-003434, 55-003435, 55-003436, 55-003437, 55-003438, 55-003439
TO-01221	NADB-R - 1362708	1978	Napton, L. K.	Archaeological Survey of the Proposed Quail Hollow Housing Development Project, Sonora, Tuolumne County, California.	L. K. Napton, Ph. D.	55-001788
TO-01224	NADB-R - 1362709	1981	Napton, L. K.	Cultural Resource Reconnaissance of the Smith-Moynihan Construction Project Sonora, Tuolumne County, California.	L. K. Napton	
TO-01225	NADB-R - 1362710	1982	Napton, L. K.	Cultural Resource Reconnaissance of Route "B", City of Sonora Waste Disposal System, Tuolumne County, California.	CSC Stanislaus, Institute for Archaeological Research, for Raymond Vail and Associates, Sacramento, CA	55-001940
TO-01227	NADB-R - 1362729	1986	Napton, L. K.	Cultural Resource Investigations of the Sonora Terrace Project, Sonora, Tuolumne County, California.	CSUS/IAR	
TO-01228	NADB-R - 1362561	1986	Napton, L. K.	Cultural Resource Investigations of the Sonora Terrace Apartments, Sonora, Tuolumne County, California.	CSU, Stanislaus Institute for Archaeological Research	55-001940
TO-01229	NADB-R - 1362711	1986	Napton, L. K.	Cultural Resource Investigations of the Sonora Terrace Apartments Project, CA-TUO-000930/H, Sonora, California: Phase Two, Evaluation of Significance.	L. K. Napton, CSUS/IAR	55-001940
TO-01292	NADB-R - 1362715	1983	Peak and Associates, Inc.	Historic Property Survey Report on the Proposed Extension of Greenley Road, Sonora, Tuolumne County, California.	Peak & Associates	
TO-03717	NADB-R - 1362917	1990	Planning Concepts, Nevada City, CA	Sunrise Hills, Child Equities Corporation, Environmental Impact Report. [EXCERPT ONLY]	Planning Concepts, Nevada City, CA; for Child Equities Corporation and City of Sonora	
TO-03730	NADB-R - 1362910	1983	Peak & Associates, Incorporated	Cultural Resource Assessment of the Proposed Extension of Greenley Road, Sonora, Tuolumne County, California.	Peak & Associates, Incorporated	
TO-05976	NADB-R - 1365794	2005	Carpenter, K.	Cultural Resources Study for the Cabezut Road Development (APN 44-490-15), City of Sonora, Tuolumne County, California	Far Western Anthropological Research Group	55-007403

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
TO-05994	NADB-R - 1365806	2006	Costello, J. G., T. Brejla, and S. Waechter	Cultural Resources Study Report and Constraints Analysis for the Tuolumne North/South Connector Project, Sonora, Tuolumne County, CA	Foothill Resources and Far Western Anthropological Research	
TO-06171	NADB-R - 1366308	2003	Davis-King, S.	Native American Ethnographic Research for Stages 1 and 2 of the East Sonora Bypass, State Route 108, PM R1.8/R6.9, Tuolumne County, California	Davis-King and Associates, for Caltrans District 10	
TO-08284		2011	AECOM	Cultural Resources Inventory Report for the Central Valley Independent Network Fiber Optic Communications Network Project, California (Calaveras, Merced, San Joaquin, Stanislaus and Tuolumne Counties in the CCalC Area of Responsibility)	AECOM; for Central Valley Independent Network	55-000980, 55-004898, 55-006538, 55-007439, 55-009333, 55-009334

APPENDIX D
TRANSPORTATION ANALYSIS MEMORANDUM



Department of Public Works

Kim MacFarlane, P.E.
Director

48 W. Yaney Avenue, Sonora
Mailing: 2 S. Green Street
Sonora, CA 95370
209.533.5601
www.tuolumnecounty.ca.gov

Memorandum

To: Richard Walker, Planning Manager

From: Dave Ruby, Engineer II

Date: August 19, 2021

Subject: Hidden Meadow Terrace – Initial Study Transportation Analysis

AIRPORTS
Airports Manager
Benedict Stuth
209.533.5685

BUSINESS
Senior Accountant
Janelle Kostlivy
209.533.5972

ENGINEERING
Supervising Engineer
Blossom Scott-Heim, P.E.
209.533.5904

FLEET SERVICES
Fleet Services Manager
Mike Young
209.536.1622

**GEOGRAPHIC
INFORMATION
SYSTEMS**
GIS Coordinator
Madeline Amlin
209.533.6592

ROAD OPERATIONS
Road Superintendent
Mike Cognetti
209.533.5609

SOLID WASTE
Solid Waste Manager
Jim McHargue, REHS
209.533.5588

SURVEYING / GIS
County Surveyor
Warren Smith, L.S.
209.533.5626

I am in receipt of and have reviewed the Appendix D, Transportation Analysis Memorandum of the Hidden Meadow Terrace project, by Wood Rodgers, Dated August 3, 2021. The project analysis reflects a geometric layout discussed by the project's design team and me on July 22, 2021, which incorporates a main entrance driveway encroachment on Greenley Road that aligns as closely as possible with that of the existing Sierra Village apartment complex on the opposite side of Greenley Road.

I generally concur with the project description, trip generation and distribution analysis, and sight distance analysis, as well as other issues covered in the report. I also concur with the conclusions of the report, specifically having to do with:

- Correction of existing sight distance deficiency via removal of trees or brush along Cabezut road right-of-way/project site frontage between Cedar Road and Greenley Road intersections;
- Center island at main project driveway (off Greenley Road) gate/turnaround bulb should be made mountable to foster longer-length truck access to site;
- Project provision of complete ADA-compliant curb/gutter/sidewalk/ramp facilities along the full project Greenley Road frontage, as well as offsite to the north, extending as far as the corner of Sylva Lane (existing crosswalk location);
- Project provision of repaving of Cedar Road and Cabezut Road along the project's complete frontage.

I would also like to point out the following issues, which were not addressed by the Memorandum but should be further addressed within the project scope of work:

- The existing sidewalk pedestrian ramp at the intersection of Cabezut and Cedar is not compliant to current ADA standards, and should be reconstructed to meet current standards;
- The project should identify roadway striping modifications to Greenley Road (specifically, a conversion of existing dedicated left-turn pockets to a continuous central turn lane, from the Cabezut/Morning Star intersection to the Sylva intersection) to safely handle the addition of the site driveway encroachment on Greenley;
- Investigate speed mitigation countermeasures, particularly on northbound Greenley past the site, as the roadway heads steeply downhill approaching the site and ambient vehicular speeds tend to be, or are perceived to be higher than the posted regulatory speed of 30 mph.



Memorandum

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

To: Mr. Charlie Simpson
BaseCamp Environmental, Inc.
802 West Lodi Avenue
Lodi, CA 95240

From: Mario Tambellini, PE, TE
Nicole Scappaticci, PE

Date: August 3, 2021

Subject: Sonora Affordable Housing Project Transportation Analysis Memorandum

INTRODUCTION

This memorandum has been prepared to present the results of a transportation analysis for the proposed Sonora Affordable Housing Project (Project) located within Tuolumne County (County) on an undeveloped parcel described as APN 044-420-037 within the northeast quadrant of the Greenley Road/Morning Star Drive-Cabezut Road intersection. This analysis includes a Project trip generation and distribution estimate; an evaluation of site access, safety, and circulation; and a discussion of Project impact on vehicle miles traveled (VMT).

PROJECT DESCRIPTION

The proposed Project consists of 72 affordable multi-family residential dwelling units on a currently undeveloped 5.93-acre site. Project access would be provided via a new driveway intersection with Greenley Road, located across from the Sierra Village Apartments driveway, approximately 300 feet north of the Greenley Road/Morning Star Drive-Cabezut Road intersection. Secondary access to the site would be provided via a new driveway on the north side of Phoebe Lane located approximately 100 feet west of Chukar Circle. Based on information provided in the County zoning map, the Project site is currently zoned as a Neighborhood Commercial District (C-O). A copy of the Project conceptual site plan prepared by BSB Design and dated April 21, 2021, is contained in **Attachment A**.

PROJECT TRIP GENERATION AND DISTRIBUTION

Trip generation rates from the Institute of *Transportation Engineers (ITE) Trip Generation Manual, 10th Edition* were used to estimate Project generated trips. Multi-Family Housing (Mid-Rise) rates were used to represent the Project trip generation instead of Affordable Housing rates due to the small data set available for the Affordable Housing land use type in the ITE Trip Generation Manual, 10th Edition. **Table 1** summarizes the trip generation rates used for the proposed Project and **Table 2** summarizes the trip generation volumes for the proposed Project.

Table 1. Project Trip Generation Rates

Land Use Category	ITE Source Code	Rate Unit	Daily Trip Rate/Unit ¹	AM Peak Hour Rate/Unit ¹			PM Peak Hour Rate/Unit ¹		
				Total	In%	Out%	Total	In%	Out%
Multi-Family Housing (Mid-Rise)	221	DU	5.43	0.35	26%	74%	0.44	61%	39%
<i>Notes:</i> ¹ Trip rates based on fitted curve equations for the proposed land use consistent with information contained in the ITE Trip Generation Manual, 10th Edition									

Table 2. Project Trip Generation Volumes

Land Use	Units	Quantity	Daily Trips ¹	AM Peak Hour Trips ¹			PM Peak Hour Trips ¹		
				Total	In	Out	Total	In	Out
Multi-Family Housing (Mid-Rise)	DU	72	391	25	7	18	32	20	12
<i>Notes:</i> ¹ Trip rates based on fitted curve equations for the proposed land use consistent with information contained in the ITE Trip Generation Manual, 10th Edition									

As illustrated in **Table 2**, the proposed Project is anticipated to generate a total of 391 daily trips, 25 AM peak hour trips (7 inbound, 18 outbound), and 32 PM peak hour trips (20 inbound, 12 outbound) under typical weekday traffic demand conditions.

Project trips would be assigned to the surrounding roadway network based on the following distribution, which was developed based on Project characteristics, existing travel patterns, and knowledge of the area:

- 30% to/from Greenley Road north of Morning Star Drive/Cabezut Road
- 20% to/from Morning Star Drive west of Greenley Road
- 50% to/from Greenley Road south of Morning Star Drive/Cabezut Road

SIGHT DISTANCE ANALYSIS

Sight distance analysis was performed for the Cedar Road/Cabezut Road, Greenley Road/Project Driveway, and Cedar Road/Secondary Driveway intersections based on the standards found in the *Tuolumne County Community Resources Agency Roads Division Encroachment Permit Information Packet* and Section 405.1 of the *Caltrans Highway Design Manual* (HDM) (dated July 1, 2020). Sight distance standards found in the *County Encroachment Permit Information Packet* were used to evaluate the private Greenley Road/Project Driveway intersection and Cedar Road/Secondary Driveway intersection, and corner sight distance standards found in the HDM were used to evaluate the public intersection of Cedar Road/Cabezut Road. At unsignalized intersections, a substantially clear line of sight should be maintained between the driver of a vehicle on the minor road and the driver of an approaching vehicle on the major road that has no stop. Minimum sight distance is the distance needed, based on speed limit of approaching traffic and other factors, to provide enough time for the stopped vehicle on the minor road to turn onto the major road without requiring through traffic to radically alter their speed. The visibility required for this maneuver forms a sight distance clear sight triangle.

As shown in **Table 3**, sight distance for vehicles turning left onto Cabezut Road from Cedar Road was found to be 170 feet below the minimum required sight distance for a 35 mph roadway. Sight distance for this movement could be increased to meet requirements by removing or trimming vegetation within the northwest quadrant of the Cedar Road/Cabezut Road intersection to give vehicles a longer line of sight along eastbound Cabezut Road. All other sight distance requirements were found to be met for the Project Driveway intersections with Greenley Road and Cedar. Sight distance exhibits for Cedar Road/Cabezut Road and the Project Driveway intersections are included in **Attachment B**.

Table 3. Sight Distance Analysis

Sight Distance Case	Direction of Sight Distance Triangle	Direction of Approaching Traffic	Speed Limit (mph)	Minimum Required Sight Distance (ft)	Actual Sight Distance (ft) ¹	Minimum Sight Distance Met?
Left turn from Cedar Road onto Cabezut Road	East and West	EB and WB	35	386 ²	216	No
Right turn from Cedar Road onto Cabezut Road	East	WB	35	335 ²	335+	Yes
Left turn from Project Dwy onto Greenley Road	North and South	NB and SB	30	200 ³	200+	Yes
Right turn from Project Dwy onto Greenley Road	South	NB	30	200 ³	200+	Yes
Left Turn from Secondary Project Dwy onto Cedar Road	East and West/South	WB and EB/NB	25	150 ³	150+	Yes
Right Turn from Secondary Project Dwy onto Cedar Road	East	WB	25	150 ³	150+	Yes
<p>Notes:</p> <p>¹ Actual sight distance in the worst-case direction is reported.</p> <p>² Source: Caltrans HDM Section 405.1. Minimum Sight Distance = $1.47 * V_m * T_g$, where V_m = design speed of the major road and T_g = is the time gap (seconds) for the minor road vehicle to enter the major road (7.5 s for left-turns from stop and 6.5 s for right-turns from stop).</p> <p>³ Source: Tuolumne County Community Resources Agency Roads Division Encroachment Permit Information Packet</p>						

INTERNAL SITE CIRCULATION

TRUCKS

Proposed Project site circulation was evaluated by performing truck turning analysis on the internal Project roadway and at the Project Driveway using AutoCAD software. A 30-foot single unit truck design vehicle was used to evaluate truck turns in order to represent a typical heavy vehicle that would visit the site. Left and right-turn ingress and egress movements at the Greenley Road/Project Driveway intersection were evaluated. The truck turn exhibits are included in **Attachment C**. Based on the current Project site plan, a truck would enter the site at the main Project Driveway on Greenley Road. The truck could then use the provided truck turn-around area to exit onto Greenley Road or use the Secondary Project Driveway to exit onto Cedar Road.

Analysis showed that the design vehicle would generally be able to maneuver within the Project site without conflicting with vehicles traveling in the opposite direction. The center island of the circular roadway at the main Project Driveway entrance will need to be mountable so that trucks can maneuver through the main gate, as the roadway radius is too small to avoid driving over the island.

It should be noted that due to the small turning radii at the Project Driveway and Secondary Driveway for the site, vehicles larger than a 30-foot single unit truck may be unable to enter or exit the site without conflicting with other vehicles traveling in the opposite direction.

BICYCLES AND PEDESTRIANS

The Project proposes to construct internal pedestrian walkways that connect all proposed buildings to Greenley Road via the Project Driveway and Cedar Road via the Secondary Project Driveway. The Project should provide adequate onsite bicycle parking and storage for visitors and residents of the Project.

EXTERNAL SITE BICYCLE AND PEDESTRIAN CIRCULATION

Connectivity to transit and general pedestrian circulation was evaluated for the Project site and vicinity. The Project proposes to construct pedestrian improvements on Greenley Road from the northern property line (approximately 180 feet south of Sylva Lane) to approximately 150 feet north of the Greenley Road/Morning Star Drive-Cabezut Road intersection. There are currently no pedestrian facilities on Cedar Road along Project frontage, and the Project does not currently propose to construct any. There are existing sidewalks along the north side of Cabezut Road along Project frontage. There are existing crosswalks with pedestrian push buttons on all four legs of the Greenley Road/Morning Star Drive-Cabezut Road signalized intersection.

A Tuolumne County Transit stop is located directly across from the Project on the east side of Cedar Road, adjacent to the Tuolumne County Social Services Driveway. A second transit stop is located on the west side of Greenley Road near the Greenley Road/Sylva Lane intersection. Both transit stops serve Route 1 – Sonora Loop, which provides service throughout the City of Sonora at approximately one-hour headways. Based on ridership data provided by the County, Route 1 typically operates at less than 30% capacity, on average, which allows for enough capacity to accommodate new transit riders from the Project.

Based on the existing and proposed pedestrian facilities described above, there would not be continuous sidewalks or pedestrian walkways between the Project and either of the nearby Tuolumne County Transit stops. It is recommended that the Project extend proposed pedestrian improvements north along Greenley Road to the crosswalk at Greenley Road/Sylva Lane to provide continuous access to the Greenley Road transit stop, if feasible. Alternatively, the Project could construct an internal east/west pedestrian walkway in the middle of the Project site that provides a direct pedestrian connection to Cedar Road near the transit stop. If the internal walkway to Cedar Road is constructed, a crosswalk across Cedar Road is also recommended at the location of the internal walkway.

Based on the current site plan, proposed pedestrian improvements on Greenley Road would end approximately 120 feet south of the Project Driveway, leaving a gap of approximately 155 feet between the newly constructed sidewalk and the existing sidewalk on the northeast corner of the Greenley Road/Morning Star Drive-Cabezut Road intersection. It is recommended that the Project fill this gap and construct pedestrian improvements along the remaining Project frontage on Greenley Road.

There are currently no striped bike lanes or signed bike routes on roadways within the Project vicinity.

SAFETY EVALUATION

A safety evaluation of roadway facilities in the Project vicinity was performed using collision data obtained from the Statewide Integrated Traffic Records System (SWITRS) database. The following collisions were reported within the Project vicinity from 2017 to 2021:

- December 23, 2017 – Greenley Road / Cabezut Road: Broadside collision between one vehicle making an eastbound through movement and one vehicle making a southbound through movement within the intersection.
- May 5, 2019 - Greenley Road/Cabezut Road: Rear end collision between two westbound vehicles approximately 30 feet east of the intersection.
- March 12, 2020 - Greenley Road/Cabezut Road: Head-on collision between one eastbound right-turning vehicle and one westbound vehicle approximately 25 feet east of the intersection. Collision involved driving under the influence of alcohol or drugs.
- September 21, 2020 – Greenley Road/Cabezut Road: Broadside collision between one vehicle making a northbound left-turn and one vehicle making a southbound through movement within the intersection.

There were no reported collisions on Cedar Road or Phoebe Lane. The collisions listed above do not appear to indicate a pattern of incidents connected to a potential safety issue or deficiency on the associated roadway facilities.

PROJECT VMT EVALUATION

The *Tuolumne County and City of Sonora SB 743 VMT Thresholds* memorandum (Wood Rodgers, February 12, 2021), provides screening criteria used to determine whether certain types of projects can be assumed to have less than significant impact on VMT, due to project characteristics or location, without a detailed VMT analysis. Based on County VMT screening criteria, projects that consist of 100% affordable housing and are located in one of the Tuolumne County General Plan's Identified Communities may be assumed to have less than significant impact and can be screened out from further VMT analysis. As the Project proposes to designate 100% of the units as affordable housing, and is located within the East Sonora Area Plan Community, the Project's VMT impact can be assumed to be less than significant.

PAVEMENT CONDITIONS

A qualitative evaluation of pavement conditions was performed for Cedar Road along Project frontage and at the Greenley Road/Cabezut Road intersection. Alligator cracking is present on the majority of Cedar Road along Project frontage and a number of potholes are present between Phoebe Lane and Cabezut Road. Additionally, alligator cracking, potholes, and longitudinal cracking are present on the eastern leg of the Greenley Road/Cabezut Road intersection (Cabezut Road). The pavement condition of these two segments is generally poor and repaving may be needed. The pavement condition of Greenley Road north of Cabezut Road along Project frontage is generally fair.

CONCLUSION

The proposed Project is anticipated to generate a total of 391 daily trips, 25 AM peak hour trips (7 inbound, 18 outbound), and 32 PM peak hour trips (20 inbound, 12 outbound) under typical weekday traffic demand conditions.

Sight distance analysis was performed for the intersections of Cedar Road/Cabezut Road, Greenley Road/Project Driveway, and Cedar Road/Secondary Project Driveway. Sight distance for vehicles turning left onto Cabezut Road from Cedar Road was found to be 170 feet below the minimum required sight distance for a 35 mph roadway. Sight distance for this movement could be increased to meet requirements by removing or trimming vegetation within the northwest quadrant of the Cedar Road/Cabezut Road intersection to give vehicles a longer line of sight along eastbound Cabezut Road. All other sight distance requirements were found to be met for the Project Driveway and Secondary Project Driveway intersections.

Project site circulation was evaluated by performing truck turning analysis on the internal Project roadway using a 30-foot single unit truck design vehicle. Based on the current Project site plan, a truck would enter the site at the main Project Driveway on Greenley Road. The truck could then use the provided truck turn-around area to exit onto Greenley Road or use the Secondary Project Driveway to exit onto Cedar Road. Analysis showed that the design vehicle would generally be able to maneuver within the Project site without conflicting with vehicles traveling in the opposite direction. The center island of the circular roadway at the main Project Driveway entrance will need to be mountable so that trucks can maneuver through the main gate, as the roadway radius is too small for the design vehicle to avoid driving over the island. It should be noted that due to the small turning radii at the Project Driveway and Secondary Driveway for the site, vehicles larger than a 30-foot single unit truck may be unable to enter or exit the site without conflicting with other vehicles traveling in the opposite direction.

Connectivity to transit and general pedestrian circulation was evaluated for the Project site and vicinity. It is recommended that the Project construct pedestrian improvements along the entirety of Project frontage on Greenley Road north of the Greenley Road/Morning Star Drive-Cabezut Road intersection. It is also recommended that the Project extend proposed pedestrian improvements north along Greenley Road to the crosswalk at Greenley Road/Sylva Lane to provide access to the Greenley Road transit stop, if feasible. Alternatively, the Project could construct an east/west pedestrian walkway in the middle of the Project site that provides a direct pedestrian connection to access to Cedar Road near the transit stop. If the internal walkway to Cedar Road is constructed, a crosswalk across Cedar Road is also recommended at the location

of the internal walkway. The Project should provide adequate onsite bicycle parking and storage for visitors and residents of the Project.

Four collisions were reported within or near the Greenley Road/Cabezut Road intersection between 2017 and 2021. There were no collisions reported on Cedar Road or Phoebe Lane. The identified collisions do not appear to indicate a pattern of incidents connected to a potential safety issue or deficiency on the associated roadway facilities.

The Project is anticipated to have a less than significant VMT impact because the Project consists of 100% affordable housing units.

Alligator cracking and potholes are present on Cedar Road along Project frontage and on Cabezut between Greenley Road and Cedar road. The pavement condition of these two segments is generally poor and repaving may be needed.

ATTACHMENT A
CONCEPTUAL SITE PLAN

PROJECT SUMMARY

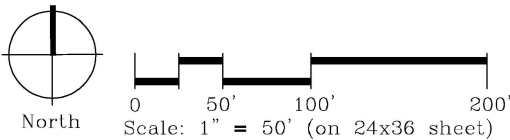
Site Data:
Gross Site Area: +/- 5.93 ac
Total Apartment Units: 72 units
Gross Density: 12.14 du/ac
Community Center +/-6,000 sf
Parking 85 spaces (1.18 ratio)

*NOTE: Project summary are preliminary and subject to refinement.

APARTMENTS BUILDING TYPE A
- 3-story
- 15-plex
- 1 Plotted (#4)

APARTMENTS BUILDING TYPE B
- 3-story
- 12-plex
- 2 Plotted (#2 &3)

PROJECT ENTRY
- Gate



SPORTS COURT
TOT-LOT
COMMUNITY EVENT LAWN

NOTE: Proposed property location, boundary lines, and shape of the parcel shown in this study are for graphic reference only and may be subject to change pending on owner's final surveying map.

SECONDARY ENTRY

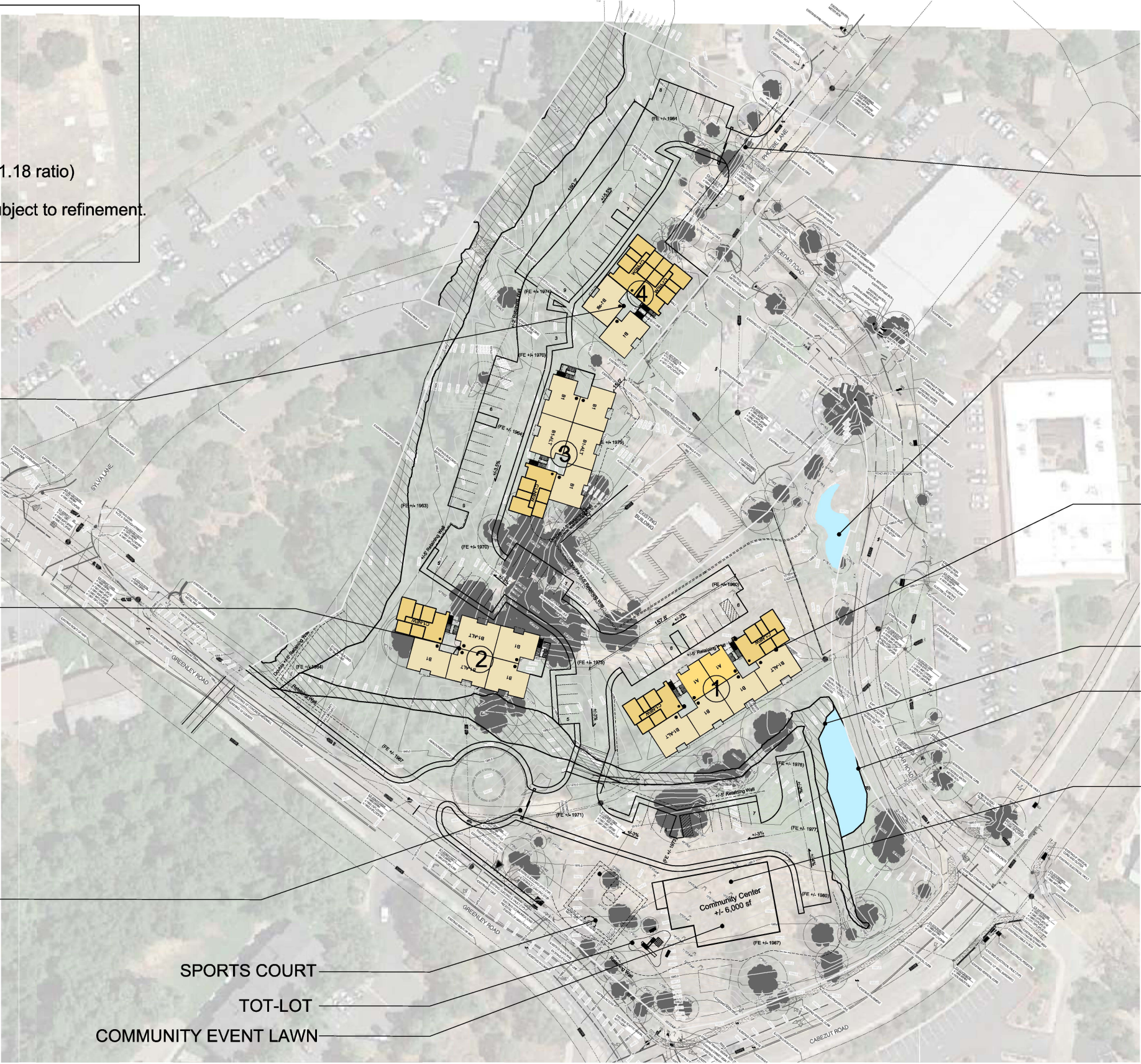
SEASONAL WETLAND

APARTMENTS BUILDING TYPE C
- 3-story
- 24-plex
- 1 Plotted (#1)

INTERMITTENT DRAINAGE

RIPARIAN WETLAND

COMMUNITY CENTER
- 1 level
- Total +/-6,000 sf.
- Leasing office, Office, Computer Labs, Headstart day care



CONCEPTUAL SITE PLAN - 72 Units
HIDDEN MEADOW TERRACE
SONORA, CA.

VISIONARY HOME BUILDERS
Sacramento, CA.



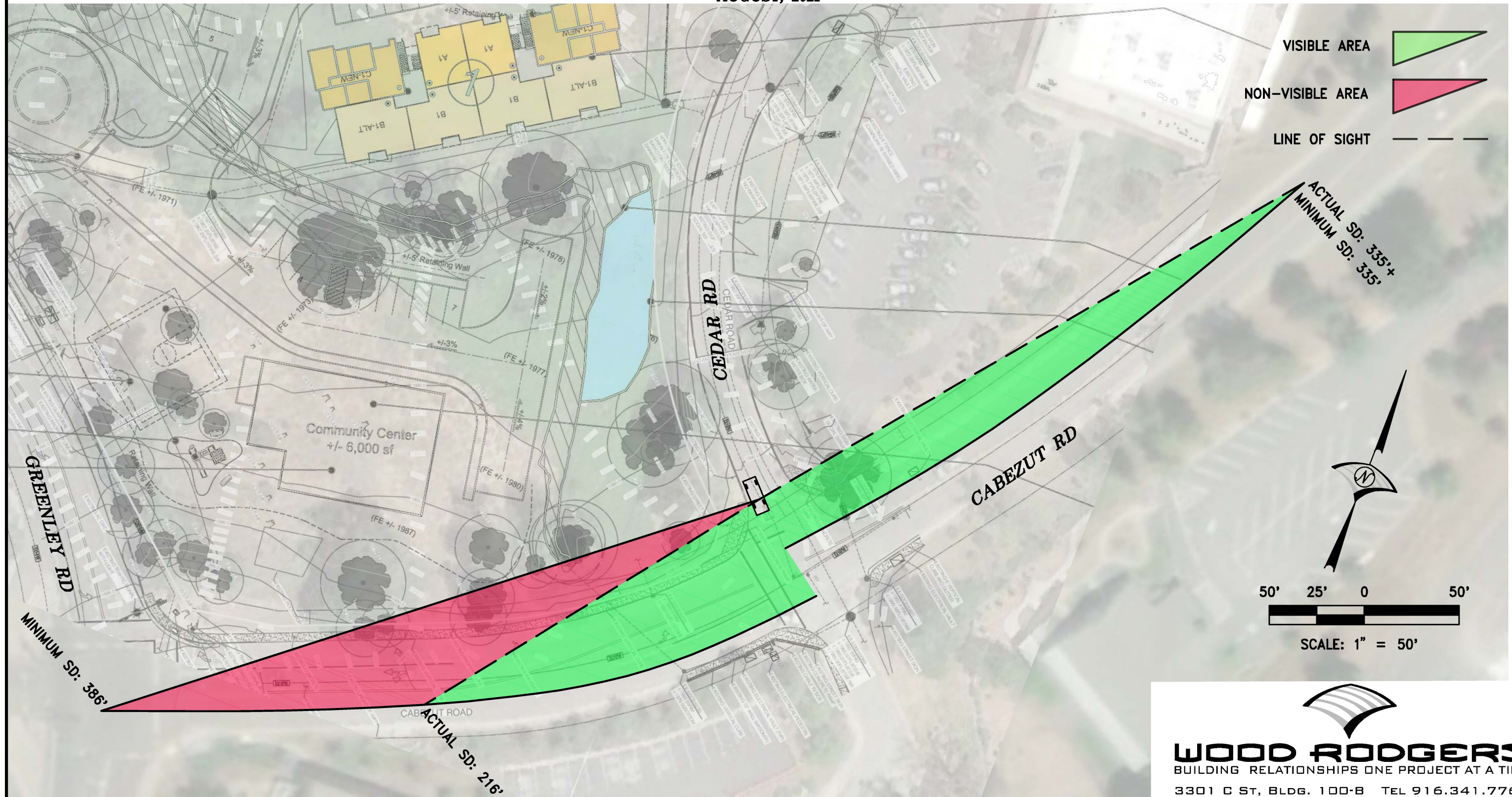
ATTACHMENT B
SIGHT DISTANCE ANALYSIS

SIGHT DISTANCE - CEDAR RD/CABEZUT RD
SONORA APARTMENTS

TUOLUMNE COUNTY

CALIFORNIA

AUGUST, 2021



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C ST, BLDG. 100-B TEL 916.341.7760
SACRAMENTO, CA 95816 FAX 916.341.7767

SIGHT DISTANCE: CEDAR RD/SECONDARY PROJECT DWY

SONORA APARTMENTS

TUOLUMNE COUNTY

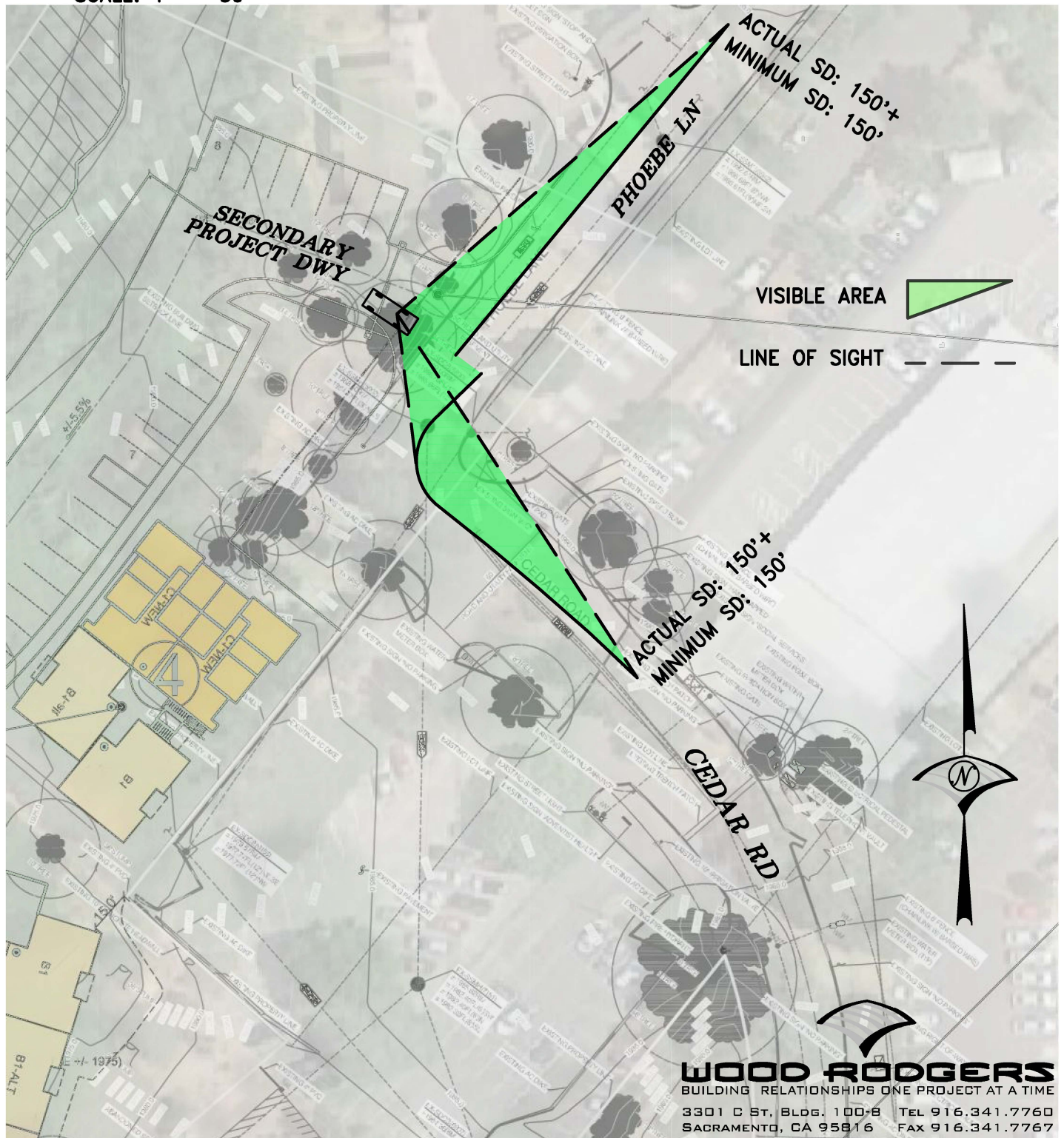
CALIFORNIA

AUGUST, 2021

50' 25' 0 50'



SCALE: 1" = 50'



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C ST, BLDG. 100-B TEL 916.341.7760
SACRAMENTO, CA 95816 FAX 916.341.7767

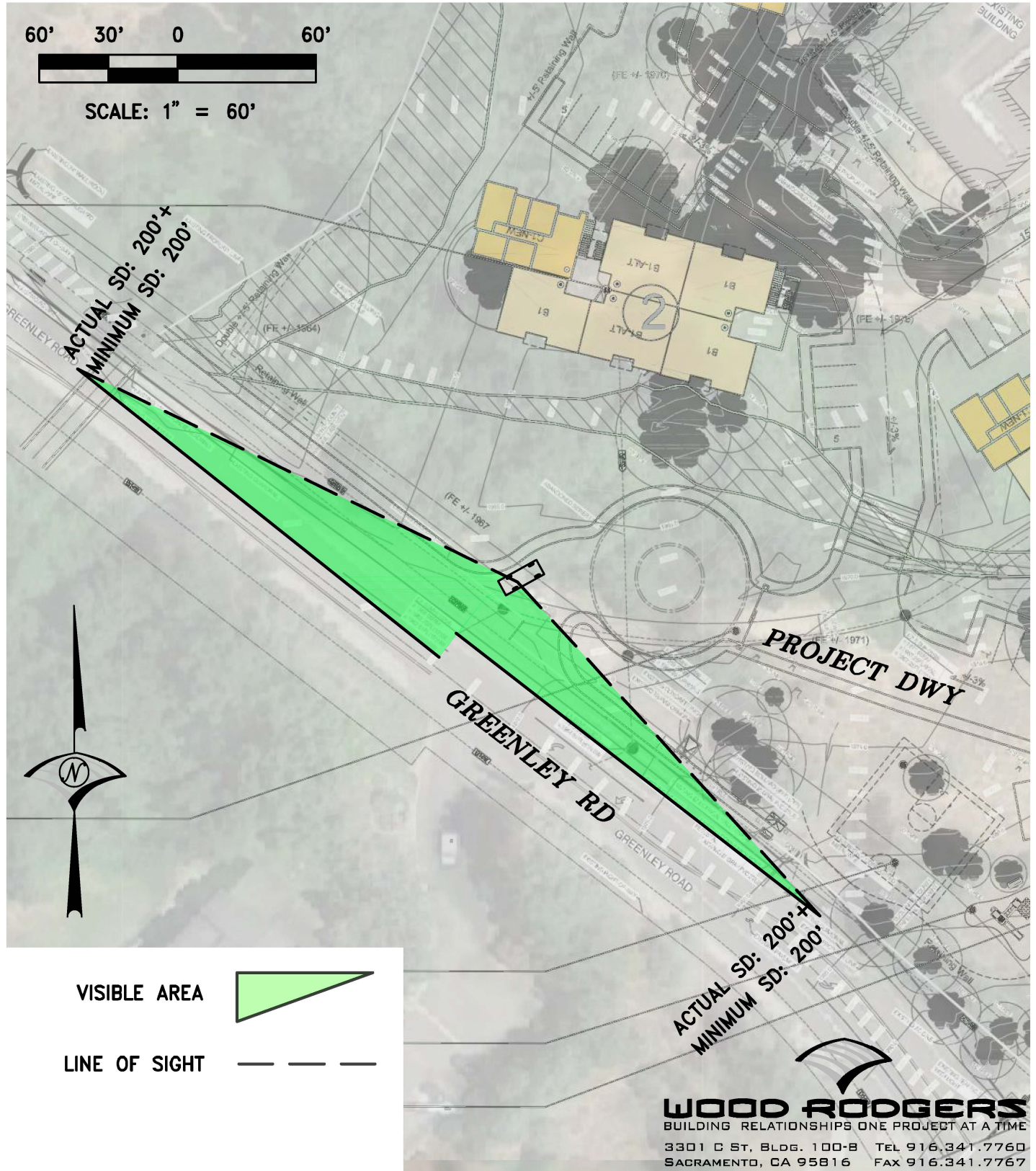
SIGHT DISTANCE: GREENLEY RD/PROJECT DWY

SONORA APARTMENTS

TUOLUMNE COUNTY

CALIFORNIA

AUGUST, 2021



ATTACHMENT C
TRUCK TURN ANALYSIS

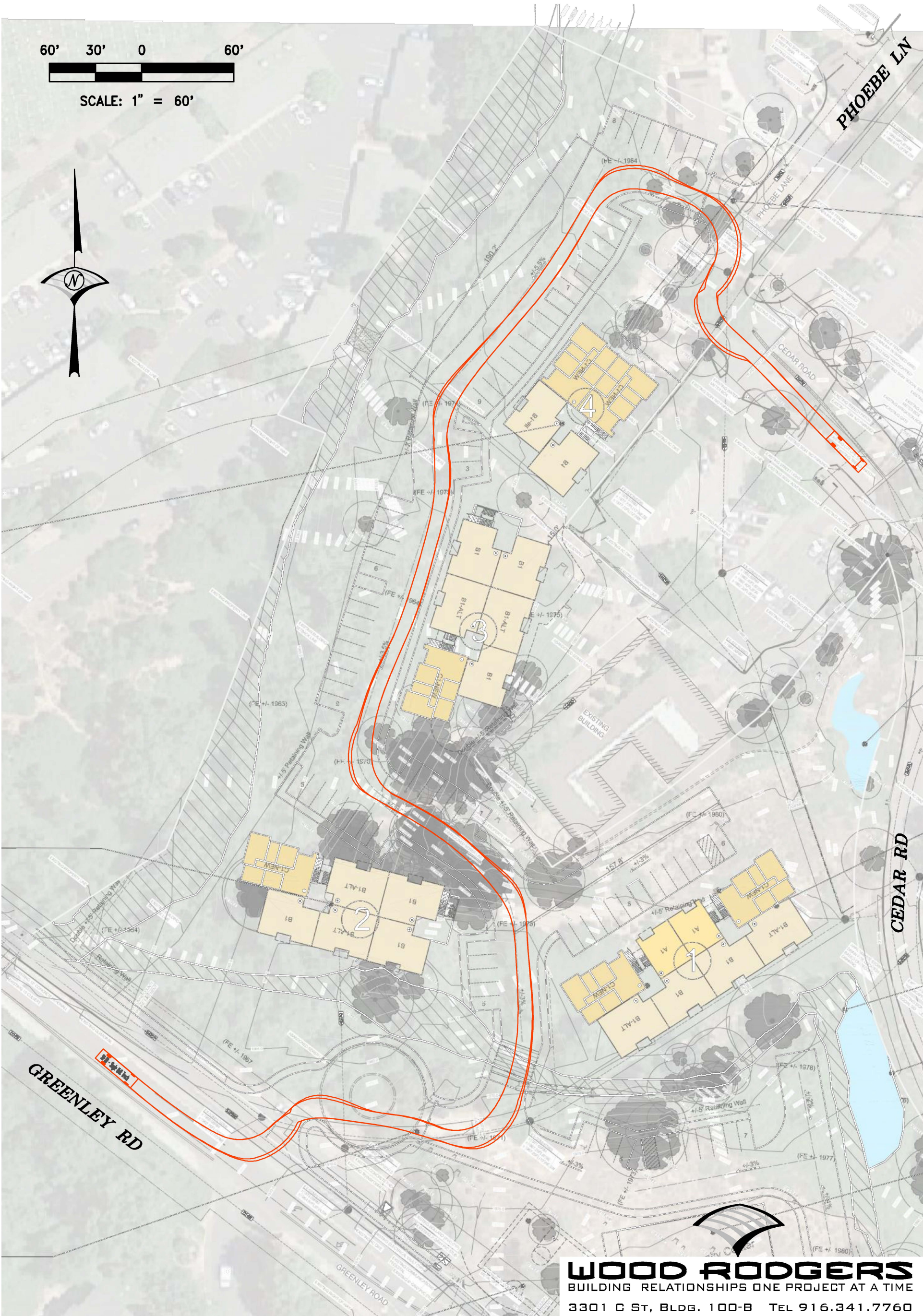
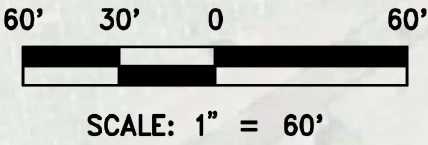
AUGUST, 2021



TRUCK TURN TEMPLATE - LEFT TURN INGRESS FROM GREENLEY RD

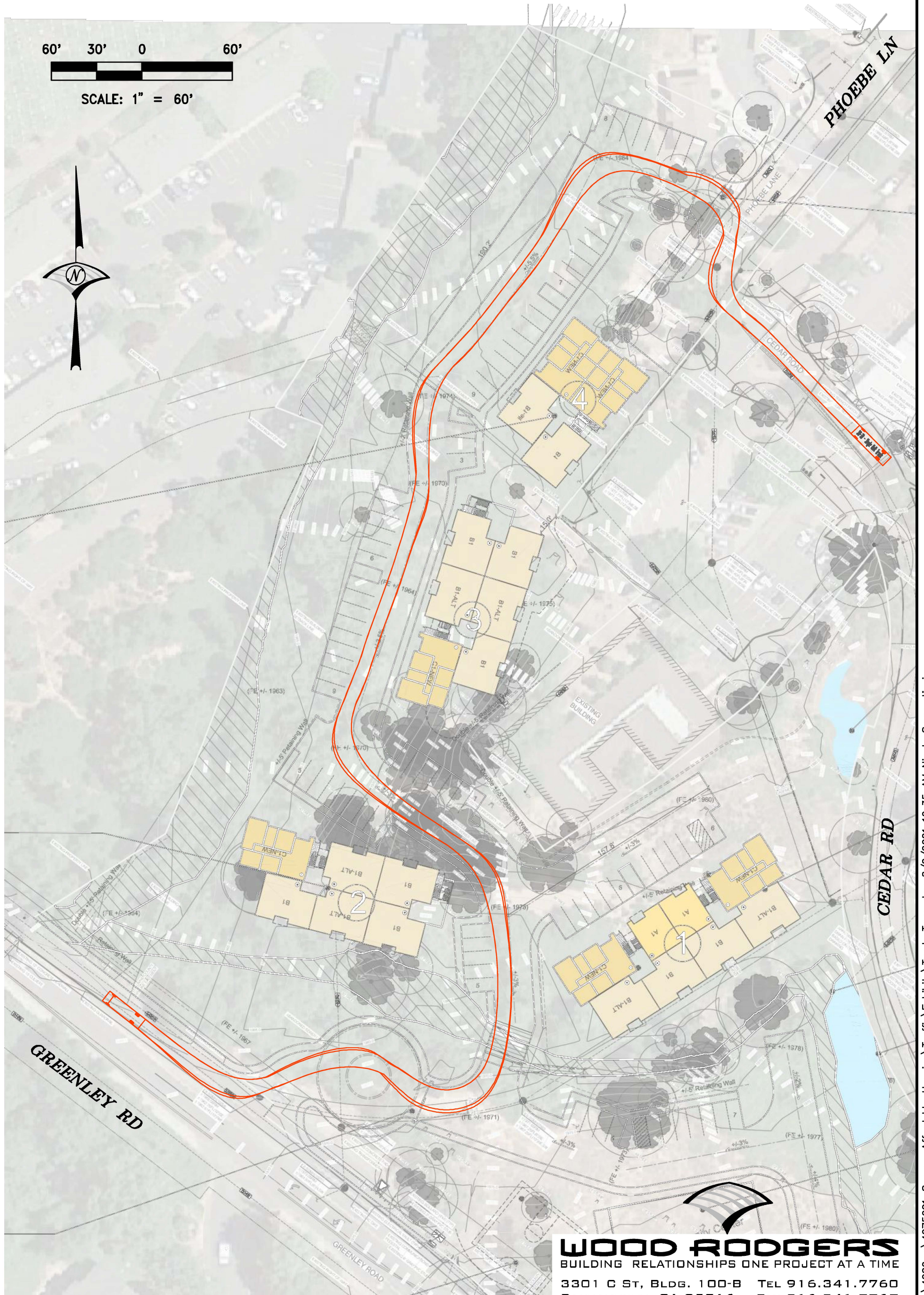
SONORA APARTMENTS

TUOLUMNE COUNTY CALIFORNIA
AUGUST, 2021



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C ST, BLDG. 100-B TEL 916.341.7760
SACRAMENTO, CA 95816 FAX 916.341.7767

AUGUST, 2021



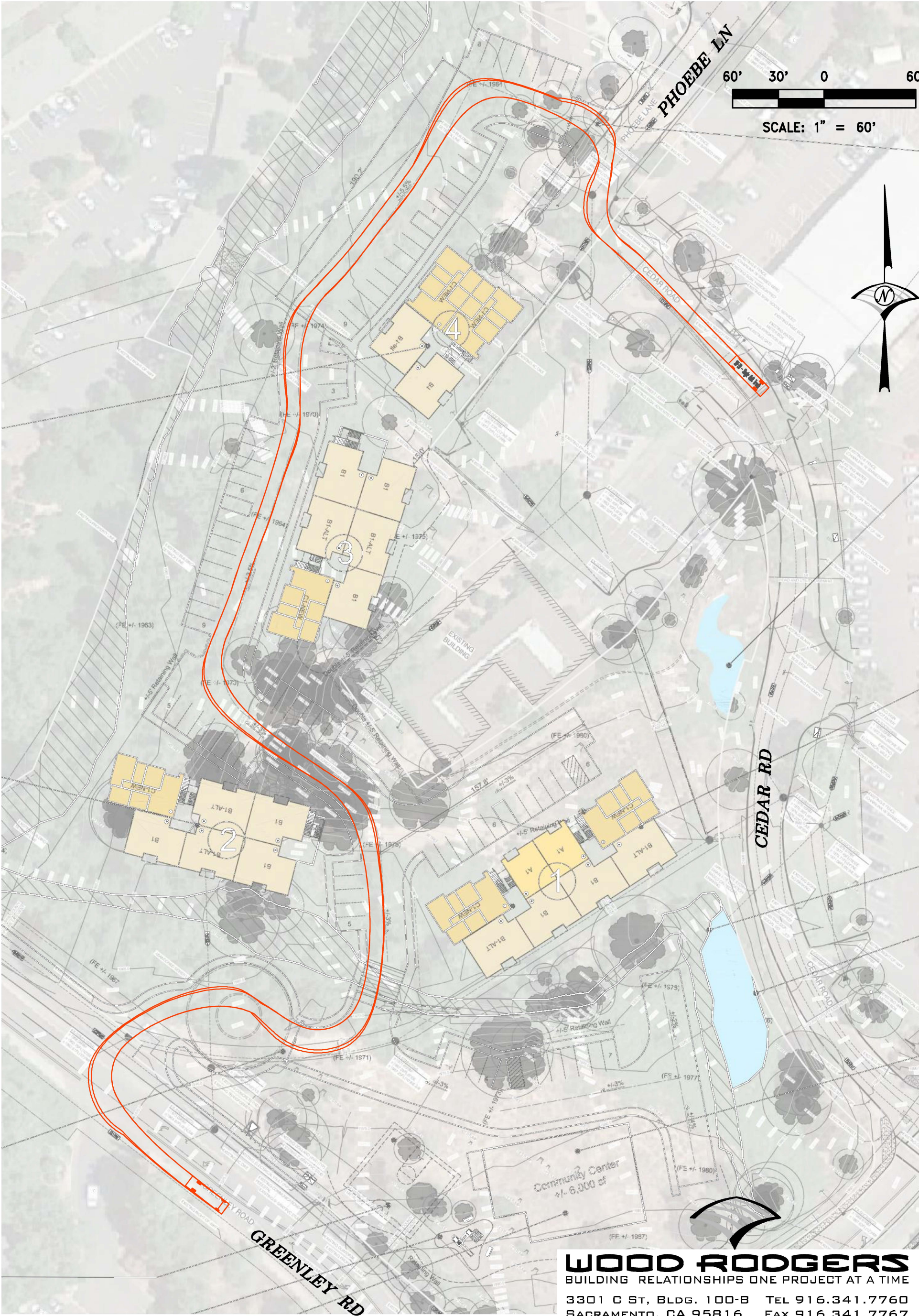
WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

3301 C ST, BLDG. 100-B TEL 916.341.7760
SACRAMENTO, CA 95816 FAX 916.341.7767

TRUCK TURN TEMPLATE - LEFT TURN EGRESS TO GREENLEY RD

SONORA APARTMENTS

TUOLUMNE COUNTY CALIFORNIA
AUGUST, 2021



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C ST, BLDG. 100-B TEL 916.341.7760
SACRAMENTO, CA 95816 FAX 916.341.7767

APPENDIX E
MITIGATION MONITORING REPORTING PLAN

Impact/Mitigation Measures	Implementation Responsibility	Monitoring/Reporting Responsibility	CEQA Finding, Significance with Mitigation, Sources
----------------------------	-------------------------------	-------------------------------------	---

3.1 AESTHETICS			
There are no significant or potentially significant impacts in this issue area.			
3.2 AGRICULTURE AND FORESTRY RESOURCES			
There are no significant or potentially significant impacts in this issue area.			
3.3 AIR QUALITY			
There are no significant or potentially significant impacts in this issue area.			
3.4 BIOLOGICAL RESOURCES			
Special-Status Species. This is a potentially significant impact.			
BIO-1: If construction work commences after April 1, 2024, special-status plant surveys shall be conducted in areas proposed for construction disturbance. Plant surveys shall be conducted, and potential impacts mitigated, in conformance with the guidelines described in Section 7.2 of the Madrone Biological Resources Assessment (Appendix B of this IS/MND). If construction work commences prior to April 1, 2024, no plant surveys shall be required.	Applicant will be responsible for retaining qualified biologist to conduct and report results of plant and wildlife surveys, if warranted by construction date.	Planning and Community Development Department will determine whether surveys are required and review and approve survey report.	1, NS Rationale: IS/MND Pages 3-10 to 3-20
BIO-2: Pre-construction surveys shall be conducted, and necessary avoidance or mitigation measures shall be prescribed, by a qualified biologist in accordance with the procedures described in the referenced sections of the Madrone			

Impact/Mitigation Measures	Implementation Responsibility	Monitoring/Reporting Responsibility	CEQA Finding, Significance with Mitigation, Sources
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<p>Biological Resources Assessment (Appendix B of this IS/MND) for the following:</p> <p>Active bumble bee colony nesting sites, within 14 days prior to construction (BRA Section 7.3). If a colony is found, consultation with CDFW will be necessary and an Incidental Take Permit from CDFW may be required prior to disturbance.</p> <p>California red-legged frog prior to construction (Section 7.4).</p> <p>Western pond turtle, within 150 feet of the intermittent and perennial drainages, within 48 hours prior to construction in those areas (Section 7.5).</p> <p>Roosting bat surveys within 14 days prior to any tree removal that will occur during the breeding season, from April through August (Section 7.7).</p>			
<p>BIO-3: Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training shall be prepared and administered to the construction crews. The training program shall address the subject areas of Section 7.10 of the Madrone Biological Resources Assessment (Appendix B of this IS/MND), and the program shall be submitted to the County Community Development Department for review and approval.</p>	<p>Applicant will be responsible for retaining qualified biologist to conduct Worker Environmental Awareness Training.</p>	<p>Planning and Community Development Department will verify that Worker Environmental Awareness Training has occurred prior to construction.</p>	<p>1, NS</p> <p>Rationale: IS/MND Pages 3-10 to 3-20</p>
<p>Riparian and Other Sensitive Habitats. This is a potentially significant impact.</p>			
<p>BIO-4: The project applicant shall notify CDFW of the project and its potential impacts and shall apply for a Section 1600 Lake or Streambed Alteration Agreement (LSAA) to determine if LSAA is required. Avoidance and minimization measures</p>	<p>Applicant will be responsible for notification of CDFW and for obtaining a Section 1600</p>	<p>Planning and Community Development Department will oversee applicant activities and implementation of CDFW approval</p>	<p>1, NS</p> <p>Rationale: IS/MND Pages</p>

Impact/Mitigation Measures	Implementation Responsibility	Monitoring/Reporting Responsibility	CEQA Finding, Significance with Mitigation, Sources
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shall be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around protected resources, worker environmental awareness training, and installation of project-specific storm water best management practices (BMPs). Mitigation may include restoration or enhancement of resources on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to CDFW.	LSAA if required.	conditions.	3-10 to 3-20
Fish and Wildlife Movement. This is a potentially significant impact.			
BIO-5: If construction activities take place during the typical bird breeding/nesting season (typically February 1 through September 1), a pre-construction nesting bird survey shall be conducted by a qualified biologist throughout the project site and all accessible areas within a 250-foot radius of proposed construction areas, no more than 14 days prior to the initiation of construction, in accordance with the specifications of Section 7.6 of the Madrone Biological Resource Assessment (Appendix B of this IS/MND). If nesting birds are discovered, avoidance or mitigation shall be provided consistent with the recommendations of the above-referenced Section 7.6. If no nests are found, no further mitigation is required. If there is a break in construction activity of more than 14 days, then subsequent surveys may be required.	Same as BIO-1.	Planning and Community Development will review and approve survey report and oversee implementation of biologist recommendations.	1, NS Rationale: IS/MND Pages 3-10 to 3-20
Local Biological Requirements. This is a potentially significant issue.			
BIO-6: The project applicant shall contribute to the Tuolumne Oak Woodland Conservation Fund using the following formula: Fee = 1.0 x Acres of Impacted Oak Woodland x Current Land Value	Applicant will be responsible for payment of oak woodland fee	Planning and Community Development will verify payment of oak woodland fee.	1, NS Rationale: IS/MND Pages 3-10 to 3-20

Impact/Mitigation Measures	Implementation Responsibility	Monitoring/Reporting Responsibility	CEQA Finding, Significance with Mitigation, Sources
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The current land value shall be determined by the County.			
<p>BIO-7: For all oak trees to be retained, including those within 25 feet of any development activity, the following protective measures shall be implemented prior to any construction activities:</p> <ul style="list-style-type: none"> Brightly colored construction fencing (mesh or silt) shall be placed around the outermost edge of the dripline of each tree or group of protected trees on the sides facing the construction. No construction activities shall be conducted within this area, including but not limited to storage of any equipment, parking or storage of any vehicles, and dumping of any trash, soils, fuels, or liquids. The construction fencing shall remain in place until all construction activities are completed. The existing grade shall be maintained around protected trees to the maximum extent possible. 	Applicant will be responsible for contractor implementation of these requirements.	Planning and Community Development will verify that all construction measures are in place.	1, NS Rationale: IS/MND Pages 3-10 to 3-20
3.5 CULTURAL RESOURCES			
Archaeological Resources. This is a potentially significant impact.			
CULT-1: Archaeological monitoring of initial project-related ground disturbances shall be conducted by a qualified professional	Applicant will be responsible for retaining	Planning and Community Development Department will	1, NS

Impact/Mitigation Measures	Implementation Responsibility	Monitoring/Reporting Responsibility	CEQA Finding, Significance with Mitigation, Sources
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archaeologist, who shall be retained by the project applicant. If any subsurface cultural resources are encountered during construction of the project, the Tuolumne County Community Development Department shall be notified, and all construction activities within 50 feet of the encounter shall be halted until the archaeologist can examine these materials, determine their significance, and recommend mitigation measures that would reduce potential effects on the find to a level that is less than significant. Recommended measures may include, but are not limited to, 1) preservation in place, or 2) excavation, recovery, and curation by qualified professionals. The project developer shall be responsible for implementing recommended mitigation measures and documenting mitigation efforts in a written report to the County's Community Development Department, consistent with the requirements of the CEQA Guidelines.	archaeologist to examine, make recommendations and report to County Planning and Community Development Department. Applicant will be responsible for implementing archaeologist recommendations.	oversee archaeologist study, review and approve report and oversee implementation of recommendations.	Rationale: IS/MND Page 3-24 to 3-27
Human Burials. This is a potentially significant issue.			
CULT-2: If human remains are encountered during construction of the project, all construction activities within 50 feet of the encounter shall be halted, and the Tuolumne County Sheriff/Coroner shall be contacted immediately. If the remains are determined to be Native American, the Sheriff/Coroner shall notify the Native American Heritage Commission, which shall in turn appoint a Most Likely Descendent to act as a tribal representative. The Most Likely Descendent shall work with the project proponent and a qualified archaeologist to determine the proper treatment of the human remains and any associated funerary objects. Construction activities shall not resume until either the human remains are exhumed or the remains are avoided via project construction design change.	Applicant will be responsible for required notifications, retaining a qualified archaeologist and providing proper treatment in the event that human remains are encountered.	Planning and Community Development Department will oversee all activities related to human burials.	1, NS Rationale: IS/MND Page 3-24 to 3-27

Impact/Mitigation Measures	Implementation Responsibility	Monitoring/Reporting Responsibility	CEQA Finding, Significance with Mitigation, Sources
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3.6 ENERGY			
There are no significant or potentially significant impacts in this issue area.			
3.7 GEOLOGY AND SOILS			
There are no significant or potentially significant impacts in this issue area			
3.8 GREENHOUSE GAS EMISSIONS			
There are no significant or potentially significant impacts in this issue area			
3.9 HAZARDS AND HAZAREOUS MATERIALS			
Emergency Response and Evacuations. This is a potentially significant issue.			
HAZ-1: Prior to the start of project construction, the developer shall prepare and implement a Traffic Control Plan, which shall include such items as traffic control requirements, resident notification of access closure, and daily access restoration. The contractor shall specify dates and times of road closures or restrictions, if any, and shall ensure that adequate access will be provided for emergency vehicles. The Traffic Control Plan shall be reviewed and approved by the County Department of Public Works and shall be coordinated with the Tuolumne County Sheriff's Department and the Tuolumne County Fire Department if construction will require road closures or lane restrictions.	The applicant will be responsible for preparing and implementing the Traffic Control Plan, in coordination with the Department of Public Works, County Sheriff and Fire Department.	The Department of Public Works will be responsible for review and approval of the Traffic Control Plan.	1, NS Rationale: IS/MND Page 3-40 to 3-44

Impact/Mitigation Measures	Implementation Responsibility	Monitoring/Reporting Responsibility	CEQA Finding, Significance with Mitigation, Sources
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3.10 HYDROLOGY AND WATER QUALITY			
There are no significant or potentially significant impacts in this issue area.			
3.11 LAND USE AND PLANNING			
There are no significant or potentially significant impacts in this issue area			
3.12 MINERAL RESOURCES			
There are no significant or potentially significant impacts in this issue area			
3.13 NOISE			
Exposure to Noise Exceeding Local Standards			
NOISE-1: Prior to approval of a grading permit, and subject to the review and approval of the Engineering Division of the Tuolumne County Department of Public Works, construction plans shall require a notation limiting construction activities to the following:	Applicant will be responsible for incorporating noise requirements in construction plans.	The Department of Public Works will verify that noise requirements are included in construction plans.	Rationale: IS/MND Pages 3-56 to 3-61
<ul style="list-style-type: none"> Construction activities shall be restricted to the hours between 8:00 a.m. and 6:00 p.m. Monday through Saturday. Construction activities shall be prohibited on Sundays and County holidays. All noise-producing project equipment and vehicles 			

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<p>using internal combustion engines shall be equipped with manufacturers recommended mufflers and be maintained in good working condition.</p> <ul style="list-style-type: none"> • All mobile or fixed noise-producing equipment used in 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 and must be located as far as is feasible from sensitive receptors. • Sound attenuation devices shall be required on construction vehicles and equipment.
3.14 POPULATION AND HOUSING
There are no significant or potentially significant impacts in this issue area
3.15 PUBLIC SERVICES
There are no significant or potentially significant impacts in this issue area
3.16 RECREATION
There are no significant or potentially significant impacts in this issue area
3.17 TRANSPORTATION

Impact/Mitigation Measures	Implementation Responsibility	Monitoring/Reporting Responsibility	CEQA Finding, Significance with Mitigation, Sources
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Traffic Hazards. This is a potentially significant issue.			
TRANS-1: The project applicant shall remove or trim vegetation within the northwest quadrant of the Cedar Road/Cabezut Road intersection to give vehicles from Cedar Road a longer line of sight along eastbound Cabezut Road.	Applicant will be responsible for design and construction of transportation improvements.	The Department of Public Works will be responsible for review, approval and inspection of improvements.	Rationale: IS/MND Pages 3-66 – 3-72
TRANS-2: The project applicant shall install a crosswalk across Cedar Road from the project site to the Tuolumne County Transit bus stop near the Tuolumne County Social Services building.			
TRANS-3: The traffic circle proposed for installation at the proposed main driveway off Greenley Road shall be mountable such that a design 30-foot single-unit truck can drive over the circle if necessary when maneuvering through the main gate.			
3.18 TRIBAL CULTURAL RESOURCES			
There are no potentially significant or significant impacts in this issue area.			
3.19 UTILITIES AND SERVICE SYSTEMS			
There are no potentially significant or significant impacts in this issue area.			
3.20 WILDFIRE			
There are no potentially significant or significant impacts in this issue area.			

✓	Noise		Population/Housing		Public Services
	Recreation	✓	Transportation		Tribal Cultural Resources
	Utilities/Service Systems		Wildfire	✓	Mandatory Findings of Significance

C. Lead Agency Determination

On the basis of this initial evaluation:

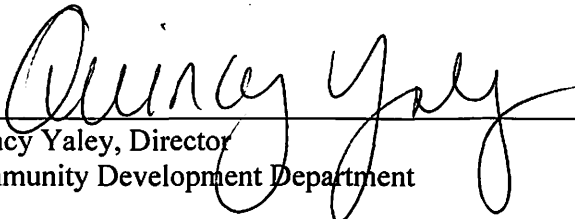
- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ✓ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

COUNTY OF TUOLUMNE


 Quincy Yaley, Director
 Community Development Department

9/28/21
 Date