DRAFT INITIAL STUDY / MITIGATED NEGATIVE DECLARATION Twain Harte Community Services District Water System Improvements Project

Prepared for: Kennedy/Jenks Consultants, Inc.

Draft Initial Study/ Mitigated Negative Declaration
January 2024

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Abbreviations and Acronyms

Abbreviations and Acronyms	
AB	Assembly Bill
amsl	Above mean sea level
APN	Assessor's Parcel Number
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDMG (CGS)	California Division of Mines and Geology (now California Geological Survey)
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Tuolumne County
Corps	U.S. Army Corps of Engineers
CRHR	California Register of Historic Resources
CRLF	California Red-Legged Frog
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Federal Clean Water Act
DTSC	California Department of Toxic Substance Control
DWR	California Department of Water Resources
ESA	Environmentally Sensitive Areas
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Maps
FYLF	Foothill yellow-legged frog
GHG	Greenhouse Gas
HCP	Habitat Conservation Plan
HSC	California Health and Safety Code
lf	Linear feet

Abbreviations and Acronyms	
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
MTCO2e	Metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NOA	Naturally Occurring Asbestos
NPDES	National Pollution Discharge Elimination System
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
PRC	Public Resources Code
Project	Twain Harte Community Services District Water System Improvements
PSA	Project Study Area
ROW	Right of way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SCC	Species of Special Concern
SOIS	Secretary of the Interior Standards
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCAPCD	Tuolumne County Air Pollution Control District
TCOC	Tuolumne County Zoning Ordinance/Ordinance Code
THCSD	Twain Harte Community Services District
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WDRs	Waste Discharge Requirements

INITIAL STUDY

DATE: January 2024

OWNER: Twain Harte Community Services District (THCSD or District)

APPLICANT: Twain Harte Community Services District

LOCATION: See **Figures 1-4**.

ASSESSOR'S PARCEL NOS: See below.

Public road rights of way (Portions of Tuolumne Road North, East Avenue, Twain Harte Drive, Little John Road, Robin Hood Drive, King Arthur's Court, and portions of Fallen Leaf and Broken Bough Lanes) and portions of:

APN	Owner	Use
048-351-008	Criado	22463 North Tuolumne Road
048-351-009	Coon	22451 North Tuolumne
048-353-008	Potter	22464 North Tuolumne
048-353-009	Eggers	22452 North Tuolumne
048-410-007	Twain Harte CSD	Water tank
048-410-020	BLM	Vacant, Tuolumne Road, East Ave (work within road ROWs)
048-410-022	Hansen	22862 N. Tuolumne Road
048-410-025	Delenikus	22866 N. Tuolumne Road
048-410-028	Ewell	22828 N. Tuolumne Road
048-410-029	Thompson	Vacant
048-461-012	Martin	22353 Broken Bough
048-461-030	Liu	22350 Broken Bough
048-461-036	Dempsey	22377 Robin Hood
048-463-002	Marion	22452 Little John
048-463-003	Patton	22464 Little John
048-463-008	Martinez	22534 Little John
048-463-009	Stampro	22536 Little John
048-474-001	Zukal	22658 Robin Hood
048-474-002	Waterfall Lodge Improvement Company	Lake (work area is adjacent to 22622 and 22626 Robin Hood)
048-481-003	Twain Harte CSD	Utilities
048-482-001	Ohara	22626 Robin Hood
048-482-002	Juhlin	22622 Robin Hood
048-610-015	Longoria	22787 East Avenue

Expanded Project Alternative:
Includes the preceding project plus the following:

APN	Owner	Use
906-000-103	Melvin	Vacant, Misc.
048-420-010	Fickel and Prusack	22823 N. Tuolumne Road
048-420-013	Fickel and Prusack	Vacant

1.0 PROJECT AND SETTING

1.1 Project Location

The project extends through portions of Sections 9 and 16, T2N, R16E, Mount Diablo Base and Meridian (MDB&M) in Tuolumne County, CA in the central Sierra Nevada foothills (**Figure 1**). The project footprint is entirely located within the Twain Harte USGS 7.5' Quadrangle and includes a portion of the Twain Harte Community and most of the Sherwood Forest subdivision (**Figures 2-3**). Most of the improvements will occur within roadways including Tuolumne Road North, East Avenue, Twain Harte Drive, Little John Road, Robin Hood Drive, King Arthur's Court, and portions of Fallen Leaf and Broken Bough Lanes with stub outs to existing residences (**Figure 3**). A portion will occur in roadways, parking areas and behind the Twain Harte Shopping Center below Twain Harte Drive.

1.2 PROJECT DESCRIPTION / PURPOSE AND NEED

The Twain Harte Community Services District (THCSD) proposes to improve water system fire flow in the Pressure Zones 4 and 6 referred to as the Sherwood Distribution System in the community of Twain Harte, Tuolumne County, California (the Project) through pipeline replacement, upsizing, relocation into road ROWs and/or pipeline abandonment through existing residential lots and the Twain Harte Shopping Center as detailed in **Figures 2-3**. The Project includes 3,938± linear feet (lf) of new six-inch pipeline, and removal and replacement of 7,836± linear feet of existing pipeline. The Project proposes using State Water Resources Control Board (SWRCB) State Revolving Funds (SRF).

THCSD will act as the Lead Agency for the California Environmental Quality Act (CEQA). The California Department of Water Resources (DWR) will act as a CEQA Responsible Agency and NEPA Lead Agency.

Construction Schedule and Equipment
Construction of the Twain Harte CSD project is expected to begin in the spring of 2025 and be completed in late summer or early fall of 2025 (Rocha pers. comm.). Anticipated equipment to be used includes: excavators, loaders, dump trucks, backhoes, graders, water trucks, compactors, concrete trucks, pavers, and similar construction vehicles.

Alternatives
Project alternatives are evaluated in **Section 2.20** herein. Those alternatives, described in detail in Section 2.20, include:

No Build Alternative. In addition to the Project, a No-Build Alternative is evaluated herein. Under the No-Build Alternative, no changes would be made to the existing water system.

Expanded Project Alternative. This alternative includes the Project plus a waterline extension through the northern portion of the project site from the cul-de-sac on King Arthur's Court across land through APN 906-000-103 and to APNs 048-420-010 and -013.

1.3 Site Description/Setting

The proposed improvements will occur primarily within existing public road rights-of-way and existing easements within and around the Twain Harte Community and Sherwood Forest subdivision and within the Twain Harte Shopping Center. Site elevations range from approximately 3,600 to 4,200 feet above mean sea level (amsl).

East Avenue connects the project areas beneath SR 108.

Turnback enters the northeast corner of the Project within the Sherwood Forest Subdivision, crosses beneath Robin Hood where it continues to flow northeast to southwest through the center of the subdivision forming a small lake and a small downstream pond emptying into a central open space / common area before the creek continues southwesterly (crossing beneath Robin Hood/Little John) and on towards Tuolumne City. Little John and Robin Hood Drives create a circle around the central open space serving single-family residential homes on lots ranging in average size from 0.2 to 0.4 acre with isolated lots of 0.8 to 3 acres.

A short segment of the Sugar Pine Railroad Grade and Section IV ditch cross East Avenue within the project boundaries.

Figure 1: Regional Setting

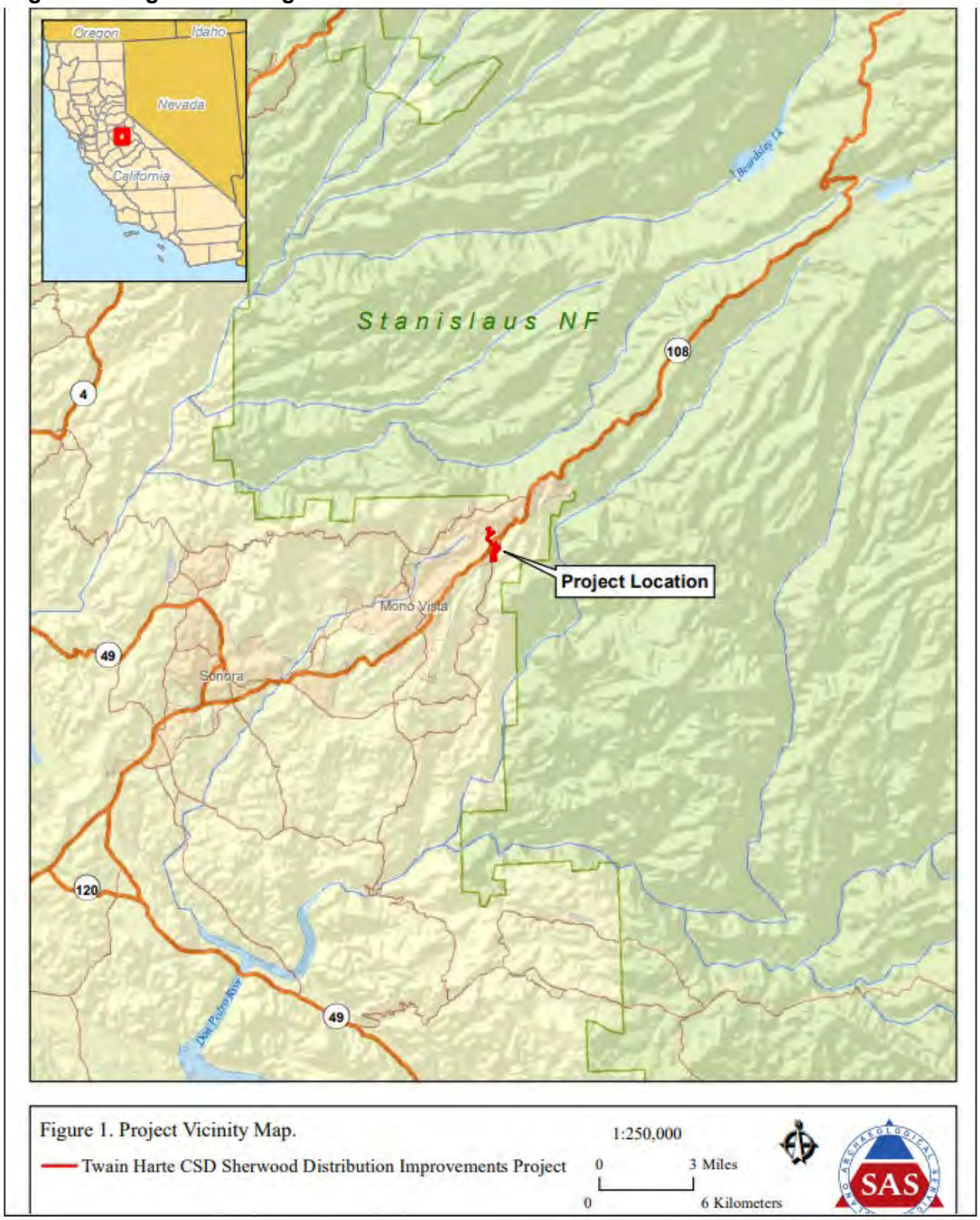


Figure 2: Project (topographic map)

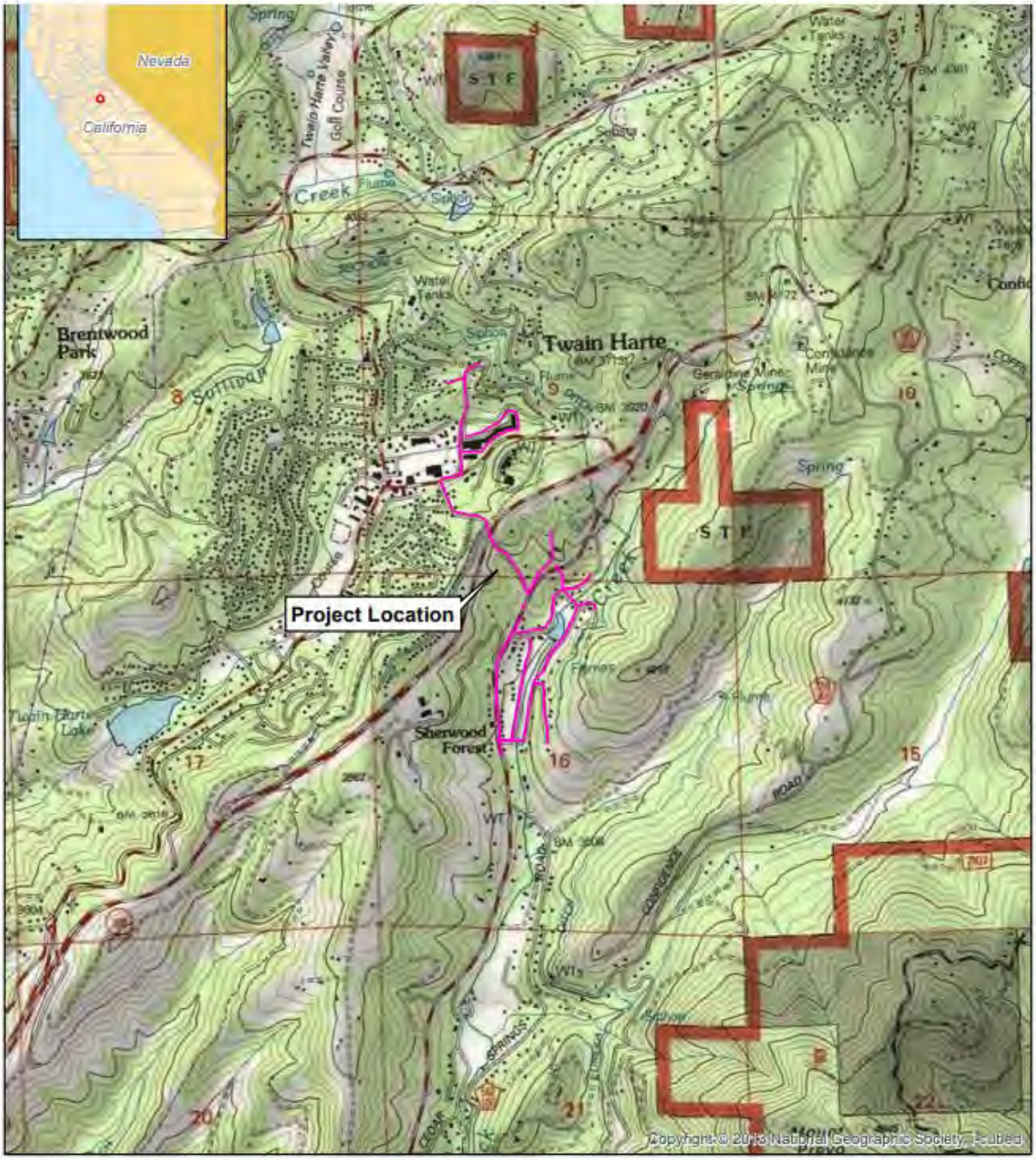


Figure 2. Project Location Map.

1:24,000

Twain Harte CSD Sherwood Distribution Improvements Project APE

0.5 Miles

1 Kilometers

T02N, R16E, Sections 9 & 16.
Twain Harte 7.5' Series Quadrangle, USGS, 1980.

Figure 3: Project (Aerial)

Figure 3. APE Map.

Twain Harte CSD Sherwood Distribution Improvements Project APE

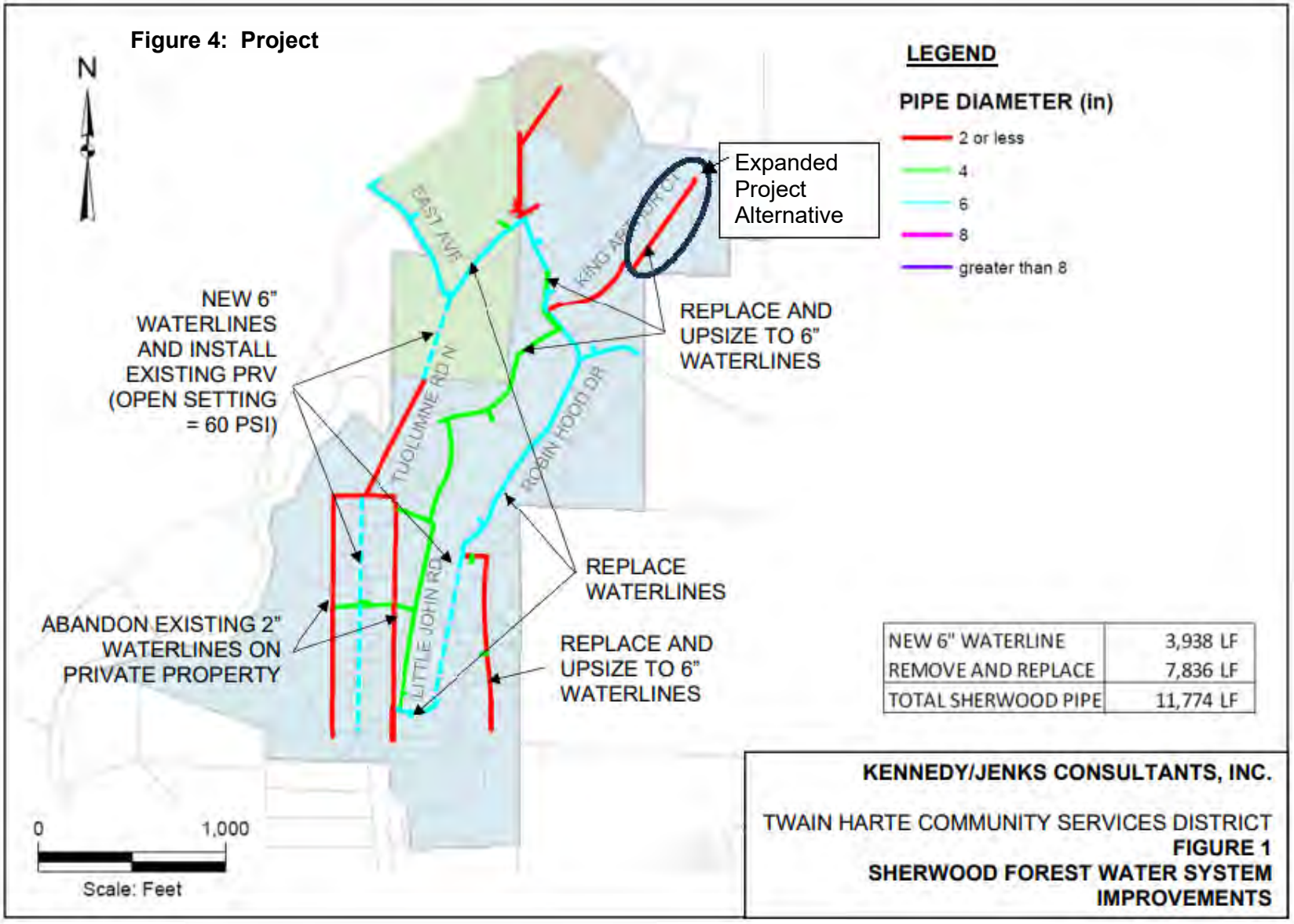
Total Acres: 16.20

1:8,600

0 500 Feet

0 250 Meters

Figure 4: Project



1.4 Public Resources Code Section 21080.3.1 Consultation

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California tribes as part of CEQA. Under AB 52, tribes requesting formal consultation from the Lead Agency are notified of the project prior to the preparing the CEQA document.

Consultations were conducted in conjunction within a nearly identical project footprint in 2012. The results of that consultation are as follows:

Native American consultation consisted of a Native American Heritage Commission (NAHC) sacred lands file search request, notification letters, coordination, and monitoring. The sacred lands file search by the NAHC on August 16, 2012, failed to indicate the presence of Native American cultural resources. On August 31, 2012, project notification letters describing the project were sent to seven individuals provided by the NAHC. Responses and contacts were as follows:

Tribe	Tribal Contact	Result
Tuolumne Band of Me-Wuk	Stanley Cox, Cultural Resource Director	No response
Tuolumne Band of Me-Wuk	Kevin Day, Chairperson	No response
Tuolumne Band of Me-Wuk	Reba Fuller	No response
California Valley Miwok Tribe	Briana Creekmore, Cultural Committee	No response
Chicken Ranch Rancheria of Me-Wuk	Lloyd Mathiesen, Chairperson	No response
Chicken Ranch Rancheria of Me-Wuk	Melissa Powell, Cultural Resources Coordinator	
Buena Vista Rancheria	Rhonda Morningstar Pope, Chairperson	No response

Due to staffing shortages at the NAHC, a revised list of contacts remains pending. Due to the lapse in time since the prior notification and delayed response from NAHC, re-notification of *local* tribal contacts was reinitiated as follows:

- Chicken Ranch Rancheria - Stephanie Suess, Monica Fox
  Notification sent 1/6/24, response not received to date.

- Tuolumne Band of Me-Wuk - Tuolumne MeWuk Tribal Council, Vicky Stone
  Notification sent 1/6/24, response not received to date.

In accordance with AB 52, these tribes will be provided copies of the draft IS/MND for any further comments. Comments will be incorporated into the final draft IS/MND.

1.5 CEQA Process

This document has been prepared to satisfy the requirements of CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before they approve or implement those projects.

The Initial Study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. In the case of the proposed Project, the Twain Harte Community Services District is the lead agency and will use the Initial Study to determine whether the proposed Project has a significant effect on the environment.

If the lead agency finds substantial evidence that any aspect of the proposed Project, either alone or in combination with other projects, may have a significant effect on the environment, that agency is required to prepare an Environmental Impact Report (EIR), a supplement to a previously prepared EIR, or a subsequent EIR to analyze the proposed Project at hand. If the agency finds no substantial evidence that the proposed Project or any of its aspects may cause a significant impact on the environment, a negative declaration may be prepared. If, over the course of the analysis, the proposed Project is found to have a significant impact on the environment that, with specific mitigation measures, can be reduced to a less-than-significant level, a supplemental mitigated negative declaration may be prepared. In the case of this proposed Project, all significant or potentially significant impacts on the environment would be reduced to less-than-significant levels with incorporation of specific mitigation measures. Therefore, this document is a mitigated negative declaration.

1.6 Incorporation by Reference

The following studies applicable to the proposed Project are hereby incorporated by reference. Copies of these studies may be viewed at the Twain Harte Community Services District offices located at 22912 Vantage Pointe Drive, Twain Harte, CA 95383 during regular business hours.

Table 1: Project Studies Incorporated by Reference

Study Title	Author	Date
Twain Harte Community Services District Water Distribution System Improvements Biological Study Report/b/	Augustine Planning Associates, Inc. by Amy Augustine, AICP	January 2024
Cultural Resources Inventory and Evaluation Report Twain Harte Community Services District – Sherwood Distribution Improvements Project Twain Harte, Tuolumne County, California /b/	Solano Archaeological Services, LLC	June 2023
Twain Harte Community Services District Sherwood Distribution System Improvements Project Air Quality and Greenhouse Gas Analysis	WK Shijo	November 6, 2023
/b/Cultural Resources reports contain confidential cultural resource location information; report distribution may be restricted. Cultural resources are nonrenewable, and their scientific, cultural, and aesthetic value can be significantly impaired by disturbance. To prevent vandalism, artifact hunting, and other activities which can damage cultural resources, and to protect the landowner from trespass, the locations of cultural resources should be kept confidential. California Government Code 6254.1 exempts archaeological site information		

Study Title	Author	Date
from the California Public Records Act. Biological Study Report contains confidential biological resources location information, report distribution is restricted.		

1.7 Other Public Agency Approvals

Other public agency approvals that may be required for the Project are summarized in the following table.

Table 2: Other Public Agency Approvals or Reviews that *May* be Required

Permitting Agency	Permit
Tuolumne County	Road encroachment permit
State Water Resources Control Board	Stormwater Pollution Prevention Plan (SWPPP)
California Department of Fish and Wildlife	1600 Lake or Streambed Alteration Agreement (LSAA) /a/
U.S. Army Corps of Engineers	Section 404 Clean Water Act Wetlands Permit/a/
State Water Resources Control Board	Section 401 Clean Water Act Water Quality Certification /a/
All other applicable local, state and federal permits required by law.	

/a/ May be eliminated through project design (i.e., eliminating Expanded Project Alternative)

2.0 ENVIRONMENTAL EVALUATION

TERMINOLOGY DEFINITIONS: The following terminology is used in this environmental analysis to describe the level of significance of potential impacts to each resource area:

- ***Potentially Significant Impact.*** This term applies to adverse environmental consequences that have the potential to be significant according to the threshold criteria identified for the resource, even after mitigation strategies are applied and/or an adverse effect that could be significant and for which no mitigation has been identified. If any potentially significant impacts are identified, an Environmental Impact Report (EIR) must be prepared consistent with the California Environmental Quality Act (CEQA).

- ***Less-than-Significant Impact with Mitigation.*** This term applies to adverse environmental consequences that have the potential to be significant, but can be reduced to less-than-significant levels through the application of identified mitigation strategies that have not already been incorporated into the proposed Project.

- ***Less-than-Significant Impact.*** This term applies to potentially adverse environmental consequences that do not meet the significance threshold criteria for that resource. Therefore, no mitigation measures are required.

- ***No Impact.*** This term means no adverse environmental consequences have been identified for the resource or the consequences are negligible or undetectable. Therefore, no mitigation measures are required.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project (excluding Project Alternatives), involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklists and report on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	X	Air Quality
X	Biological Resources	X	Cultural Resources	☐	Geology /Soils
☐	Greenhouse Gas Emissions	☐	Hazards and Hazardous Materials	X	Hydrology / Water Quality
☐	Land Use / Planning	☐	Mineral Resources	X	Noise
☐	Population / Housing	☐	Public Services	☐	Recreation
X	Transportation / Traffic	X	Tribal Cultural Resources	☐	Utilities/Service Systems
X	Mandatory Findings of Significance				

DETERMINATION:

☐ 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 and 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 1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and 2) 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.

Tom Trott, General Manager
Twain Harte Community Services District

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect 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.

2.1 AESTHETICS

I. AESTHETICS. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

2.1.1 Background and Setting

The Project involves trenching within public road rights-of-way, along Tuolumne Road North, East Avenue, Twain Harte Drive, Little John Road, Robin Hood Drive, King Arthur's Court, and portions of Fallen Leaf and Broken Bough Lanes (Sherwood Forest Subdivision).

Upon completion, all work will be restored to pre-Project conditions by re-paving or re-graveling. No above-surface structures will be present.

2.1.2 Analysis

a. Have a substantial adverse effect on a scenic vista?

No Impact. No scenic vistas exist within the Project area; therefore, no substantial adverse effects on scenic vistas are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The project is not located along or within view of a state scenic highway; therefore, no substantial adverse impacts to scenic resources within a state scenic highway are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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?

Less Than Significant with Mitigation Incorporated Proposed improvements will occur primarily within existing road rights-of-way and along existing public easements through existing developed areas. Work will be underground.

Large individual native oaks, primarily black oaks (*Quercus kelloggii*), line Robin Hood Drive and portions of Little John Road surrounding Turnback Creek. Damage to the root zones and/or branches of these trees could occur during construction activities within the road ROWs resulting in substantially weakening and hastened death of the tree, a potentially significant adverse visual impact. The following mitigation measure is proposed to minimize or reduce this impact to a level of less-than-significant:

Mitigation Measure AES-1: Large Native Oak Tree Protection
To the maximum extent feasible and practicable, throughout project construction activities occurring within one and on-half times the driplines of native oaks (e.g., black oaks, *Quercus kelloggii*) measuring 24" or greater in diameter at breast height:

- Limit ground-disturbing activities to outside the dripline of native oaks and preferably outside one and one-half times the dripline;
- No storage equipment, supplies, vehicles, debris, construction wastewater, paint, stucco, concrete or any other clean-up waste, and temporary or permanent structures shall be placed within the driplines
- Avoid cutting oak roots
- Use boring or trenchless installation rather than open trenching within driplines where possible
- Avoid equipment damage to limbs, trunks, and roots of oaks trees
- Do not attach signs, ropes, cables or other items to trees

Mitigation Monitoring AES-1: The required mitigation measure will be implemented throughout project construction activities occurring within the one and one-half times the driplines of native oaks (primarily black oaks) measuring 24" or greater in diameter at breast height. The measure is the responsibility of the construction contractor.

Proper implementation of the preceding measure will reduce the potential visual impacts to a level of less-than-significant.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

No Impact. The Project consists of underground pipes. No new lighting is proposed in conjunction with the proposed project. Therefore, no new source of substantial light or glare will occur and no substantial adverse effects are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.2 AGRICULTURE AND FORESTRY RESOURCES

II. Agriculture and Forestry Resources: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

2.2.1 Background and Setting

The project is located within the developed Twain Harte community and Sherwood Forest subdivision.

Pursuant to the USDA NRCS Soils Survey Reports, on site soils north of SR 108 are summarized in the following table and **Figure 5.**

Map symbol	Soil Name	Parent Materials	Farmland Classification	Acres	Approx % of Study Area
3020	Iron Mountain-Rock Outcrop complex 3-15% slopes	Residuum weathered from volcanic conglomerate or tuff breccia	Not prime farmland	0.3	0.6%
3033	Redapple-Lilygap complex, 15-30% slopes	Ashy colluvium over residuum derived from tuff breccia; Medial colluvium over residuum derived from tuff breccia	Not prime farmland	6.1	12.0
3038	Devilsnose-Lilygap complex 30-60% slopes	Medial colluvium over residuum derived from tuff breccia; Medial colluvium over residuum derived from tuff breccia	Not prime farmland	2.1	4.0
6036	Musick-Wukusick complex, 15-30% slopes	Colluvium over residuum derived from diorite; Residuum weathered from diorite	Not prime farmland	5.0	9.8%
6038	Musick-Wukusick complex 30-60% slopes	Colluvium over residuum derived from diorite; Residuum weathered from diorite	Not prime farmland	4.1	7.9%
9014	Urban land – Musick-Hotaw complex 3-30% slopes/a/	Colluvium over residuum derived from diorite	Not prime farmland	33.7	65.7%
			Total North Side of SR 108	**51.3**	**100%**

/a/ Minor components: Fluventic endoaquepts Percent of map unit: 2 percent Landform: Flood plains Hydric soil rating: Yes

Pursuant to the USDA NRCS Soils Survey Reports, on site soils south of SR 108 are as summarized in the following table and **Figure 6:**

Map symbol	Soil Name	Parent material	Farmland classification	Acres	Approx % of Study Area
3020	Iron Mountain-Rock outcrop complex 3-15%	Residuum weathered from volcanic	Not prime farmland	0.4	0.2%

Map symbol	Soil Name	Parent material	Farmland classification	Acres	Approx % of Study Area
		conglomerate or tuff breccia			
3021	Iron Mountain-Crozier-Rock outcrop complex 14-60% slopes	Colluvium and/or residuum derived from volcanic conglomerate or tuff breccia; Ashy colluvium over residuum derived from tuff breccia	Not prime farmland	15.6	8.1%
3038	Devilsnose-Lilygap complex, 30-60% slope	Medial colluvium over residuum derived from tuff breccia	Not prime farmland	146.7	76.3%
6202	Musick-Ultic Haploxeralfs, moderately well drained complex 1-8% slopes/a/	Colluvium over residuum derived from diorite; Colluvium and/or slope alluvium over residuum derived from diorite	Not prime farmland	28.5	14.8%
9014	Urban land-Musick-Hotaw complex 3-30% slopes/b/	Colluvium over residuum derived from diorite	Not prime farmland	1.1	0.6%
			Total South Side of SR 108	192.3	100%

/a/ Minor Components include Aquepts Percent of map unit: 6 percent Landform: Drainageways, Hydric soil rating: Yes

/b/ Minor components - Fluventic endoaquepts Percent of map unit: 2 percent Landform: Flood plains Landform position (three-dimensional): Hydric soil rating: Yes

All of the preceding soils are classified as Non-prime agricultural land. No agricultural-zoned lands or lands in agricultural production are within the project boundaries.

Figure 5: Soils north of SR 108

Figure 6: Soils South of SR 108

2.2.2 Analysis

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?

Less Than Significant Impact.
No commercial agricultural uses are located within the Project Study Area. No portions of the PSA are under a Williamson Act Land Conservation Contract and none are within an agricultural preserve.

Therefore, no significant adverse impacts associated with the conversion of agricultural lands to non-agricultural use.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?
d) Result in the loss of forest land or conversion of forest land to non-forest use?
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. No timberland production lands exist on or adjacent to the proposed Project. Therefore, no conversion of forest land to non-forest use and no impacts to timberland production or parcels zoned for such use are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.3 AIR QUALITY

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
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?	☐	☐	☒	☐

2.3.1 Background and Setting

The following study was conducted for the project and previously incorporated by reference:

Shijo, Wayne. November 2023. *Twain Harte Community Services District Sherwood Distribution System Improvements Project Air Quality and Greenhouse Gas Analysis*

The following summarizes the report's findings.

The Project site is located within the Mountain Counties Air Basin under the jurisdiction of the Tuolumne County Air Pollution Control District (TCAPCD). Based on data from the EPA (U.S. Environmental Protection Agency 2023a), Tuolumne County is designated a "marginal" nonattainment area for ozone.

Project implementation will result in construction activity which generates air pollutant emissions. Construction activities such as grading, excavation and travel on unpaved surfaces may generate dust, and can lead to elevated concentrations of inhalable particulate matter smaller than 10 microns in diameter (PM10). The operation of construction equipment results in exhaust emissions. A substantial portion of the construction equipment is powered by diesel engines, which produce relatively high levels of nitrogen oxide (NOx) emissions. Construction activity could also potentially entrain naturally occurring asbestos (NOA) if present in the soil.

To evaluate the significance of pollutant emissions impacts, the Tuolumne County Air Pollution Control District (TCAPCD) has established significance thresholds for emissions of ozone precursors reactive organic gas (ROG) and NOx, PM10, and carbon monoxide (CO). These types of emissions are referred to as “criteria” pollutants. Significance thresholds used in this analysis are from the *TCAPCD CEQA Thresholds of Significance* (Tuolumne County Air Pollution Control District 2023).

The TCAPCD significance thresholds in the following table are used to evaluate criteria pollutant impacts associated with the Proposed Project.

Table 3: Significant Thresholds for Pollutants - Tuolumne County

Type of Pollutant Emissions	Amount of Pollutant Emissions in Pounds per Day	Amount of Pollutant Emissions in Tons per Year
Reactive Organic Gases (ROG)	1,000	100
Nitrogen Oxides (NO_x)	1,000	100
Inhalable Particulate Matter (PM_{10})	1,000	100
Carbon Monoxide (CO)	1,000	100

Note: These thresholds are applied to both construction-related and operational emissions.
Source: Tuolumne County Air Pollution Control District 2020.

If the proposed project’s criteria pollutant emissions exceed the above pollutant thresholds, the project will be considered to have a significant effect on air quality.

Federal Clean Air Act Conformity

Projects that involve federal funding may be required to comply with Federal Clean Air Act

Conformity regulations. In these cases, a project is required to demonstrate it is in conformance with plans prepared to comply with the Federal Clean Air Act. Conformity regulations are divided into two types: Transportation Conformity, which applies to transportation projects; and General Conformity, which applies to non-transportation projects. The SWRCB recommends that California Environmental Quality Act (CEQA) documents address Federal General Conformity, and indicate if a project is subject to a conformity determination (California State Water Resources Control Board 2018).

To address Federal General Conformity for this project, two steps are applied:

- Identifying if the project is subject to a conformity determination, and
- Comparing project-related emissions to mass-emission thresholds.

To identify whether the Project is subject to a conformity determination, guidance from the U.S. Environmental Protection Agency (EPA) (U.S. Environmental Protection Agency 2023a.) will be used in this report.

If the proposed project is subject to a conformity determination, *de minimis* mass-emissions thresholds from EPA will be used to identify if the project would result in a significant impact. EPA defines *de minimis* levels as the minimum threshold for which a conformity determination must be performed, for various criteria pollutants in various areas (U.S. Environmental Protection Agency 2023b). For areas designated "marginal" nonattainment areas for ozone, 40 CFR 93 § 153 sets the *de minimis* thresholds as:

- 100 tons per year of volatile organic compounds (VOC), which in this report will be measures as ROG; and
- 100 tons per year of NOx.

The Road Construction Emissions Model was used to quantify criteria pollutant for this project.

Naturally occurring asbestos (NOA)

Naturally occurring asbestos is identified as a toxic air contaminant (TAC) by the California Air Resources Board (ARB). No quantitative significance thresholds have been set for NOA. However, the California Department of Conservation website (https://www.conservation.ca.gov/cgs/minerals/mineral-hazards/asbestos) provides a map that may be used as a screening-level indicator of the likelihood of NOA being present on the proposed project site.

The map, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (California Department of Conservation 2000) shows the locations considered to be subject to elevated risk of containing NOA. If a project site is located outside of areas considered to be subject to elevated risk of containing NOA, it may be considered to have a relatively lower probability of containing NOA and, in this analysis, will be considered to have a less-than-significant impact. If a project site is located within an area considered to be subject to elevated risk of containing NOA, it may be considered to have an

elevated probability of containing NOA and, in this report, will be considered to have a significant impact.

2.3.2 Analysis

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

No Impact. The county is not subject to an applicable air quality plan. Therefore, the Project will not conflict with any such a plan.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

The air quality analysis for Criteria Pollutant Emissions Construction of the proposed project identifies maximum emissions per day for all construction phases and components as follows:

Table 4: Project Criteria Pollutant Emissions Per Day

Sherwood Distribution System Project Phases and Components		Maximum Emissions in Pounds Per Day for Each Phase and Component			
		Reactive Organic Gases	Carbon Monoxide	Nitrogen Oxide	Inhalable Particulate Matter (PM_{10})
Phase 1: Mobilization					
Component 1	Equipment Transport	0.58	10.12	4.27	0.23
Component 2	Supplies Delivery	1.20	10.44	7.41	0.31
Component 3	Staging Area	1.48	15.14	10.10	0.43
Phase 2: Pipeline Installation					
Component 1	Site Layout	0.25	4.15	1.68	22.61
Component 2	Potholing	0.59	9.38	4.65	22.75
Component 3	Pipeline Installation	0.52	8.88	9.44	22.90
Component 4	Disinfection and Pressure Testing	0.27	4.39	1.70	0.12
Phase 3: Restoration					
Component 1	Final Grading	0.25	4.43	3.77	22.66
Component 2	Paving	0.46	7.88	13.05	22.97
Phase 4: Demobilization					
Component 1	Staging Area Demobilization	1.48	15.14	10.10	0.43
Component 2	Equipment Transport	1.20	10.44	7.41	0.31
Component 3	Supplies Cleanup and Demobilization	1.20	10.44	7.41	0.31
Maximum Emissions (in Pounds per Day) for All Phases and Components		1.48	15.14	13.05	22.97
Significance Threshold (in Pounds per Day)		1,000	1,000	1,000	1,000
Significant Impact?		No	No	No	No

Table 5: Project Criteria Pollutant Emissions Per Year

Sherwood Distribution System Project Phase	Emissions in Tons Per Year			
	Reactive Organic Gases	Carbon Monoxide	Nitrogen Oxide	Inhalable Particulate Matter (PM_{10})
Phase 1: Mobilization	0.01	0.10	0.06	< 0.01
Phase 2: Pipeline Installation	0.02	0.26	0.24	0.67
Phase 3: Restoration	< 0.01	0.04	0.05	0.13
Phase 4: Demobilization	0.01	0.10	0.07	< 0.01
Total of All Phases	0.04	0.50	0.42	0.80
Significance Threshold (in Tons per Year)	100	100	100	100
Significant Impact?	No	No	No	No

As shown above, during a daily period, construction activity would generate a maximum of:

- 1.48 ppd of ROG,
- 13.05 ppd of NOx,
- 22.97 ppd of PM10, and
- 15.14 ppd of CO.

As shown above, construction activity annually would generate:

- 0.04 tpy of ROG,
- 0.42 tpy of NOx,
- 0.80 tpy of PM10, and
- 0.50 tpy of CO.

None of the above values would exceed the TCAPCD significance thresholds in **Table 3**. Therefore, this impact is considered less than significant, and no mitigation measures are required.

As noted in the Project Description, the Project would not result in a long-term change in system capacity. As a result, the project would not result in a change in long-term operational criteria pollutant emission. This impact is considered less than significant and no mitigation measures are required.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

Federal conformity

Based on data from the EPA (U.S. Environmental Protection Agency 2023a), Tuolumne County is designated a "marginal" nonattainment area for ozone. As a result, the Twain Harte CSD project is subject to a Federal Clean Air Act conformity determination.

As shown in **Table 5,** the Twain Harte CSD project would result in 0.04 tons per year of ROG emissions and 0.42 tons per year of NOx emissions. These amounts of emissions are less than the *de minimis* thresholds of 100 tons per year of VOC (applied in this report to ROG emissions), and 100 tons per year of NOx. Therefore, the impact of the project on Federal Clean Air Conformity is considered less than significant. No mitigation measures are required.

Naturally Occurring Asbestos (NOA)

The map, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* shows areas more likely to contain NOA. Soil-disturbing construction activity in these areas would result in an elevated risk of entraining NOA. The asbestos map shows the project site is located approximately 14 miles away from the nearest area considered more likely to contain NOA (southwest of the Jamestown area). Because of the distance between the project site and the nearest area considered more likely to contain NOA, this impact is considered less than significant. No mitigation measures are required.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant with Mitigation Incorporated. One of the most important reasons for

air quality standards is the protection of those members of the population who are most sensitive to the adverse health effects of air pollution, termed "sensitive receptors." The term sensitive receptors refers to specific population groups, as well as the land uses where individuals would reside for long periods. Commonly identified sensitive population groups are children, the elderly, the acutely ill, and the chronically ill. Commonly identified sensitive land uses include facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Residential dwellings, schools, parks, playgrounds are examples of sensitive land uses.

Potentially sensitive land uses in the Project area include an elementary school (adjacent to the Twain Harte shopping center) and residences throughout the project area.

The Project has the potential to expose, temporarily, these receptors to air emissions including dust and equipment emissions during construction activities, a potentially significant impact. The following mitigation measures are included to minimize the potential for exposing sensitive receptors to construction dust and equipment emissions.

Mitigation Measure AQ-1: Dust Control
The construction contractor shall be responsible for dust abatement during construction and development operations. A water truck or other watering device shall be on the construction site on all working days when natural precipitation does not provide adequate moisture for complete dust control. Said watering device shall be used to spray water on the site at the end of each day and at all other intervals, as need dictates, to control dust. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions using application of water. A water truck shall be present on site throughout construction activities.

Mitigation Monitoring AQ-1: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.

Mitigation Measure AQ-2: Equipment Emissions
Throughout Project construction:

A. Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations (CCR) Title 17, Section 93114 (Compliance with Caltrans' Standard Specifications, Section 14-9).
B. The extended idling of heavy-duty diesel-powered construction equipment within 500 feet of nearby sensitive receptors (i.e., residential dwellings) is prohibited during periods when the equipment is not in use.

Mitigation Monitoring AQ-2: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.

Proper implementation of these measures is expected to reduce temporary impacts on sensitive receptors to a level of less-than-significant.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant. Minor sources of odors would be present during construction. The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines, as well as emissions associated with paving may be considered offensive to some individuals. However, because odors would be temporary and would disperse rapidly with distance from the source, construction-generated odors would not be anticipated to result in the frequent exposure of a substantial number of receptors to objectionable odorous emissions and is considered a less-than-significant impact.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.4 BIOLOGICAL RESOURCES

IV. BIOLOGICAL RESOURCES: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

2.4.1 Background and Setting

The following biological study was prepared for this Project and previously incorporated by reference as follows:

Study Title	Author	Date
Twain Harte Community Services District Water Distribution System Improvements Biological Study Report	Augustine Planning Associates, Inc.	January 2024

Natural resources were identified through a review of databases and species lists from the United States Fish and Wildlife Service (USFWS), California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) and CalFlora databases. Biological field surveys were conducted 4/23/23, 5/13/23, and 6/11/23.

Site elevations range from approximately 3,600 to 4,200 feet above mean sea level (amsl).

On-site and adjacent and vegetation/habitat types are illustrated in **Figure 7.**

2.4.2 Methodology

Review of existing data and previous surveys
Prior to commencing field surveys, APA reviewed the California Natural Diversity Database/Rarefind, obtained a USFWS species lists, reviewed the National Wetlands Inventory, CalFlora plant list, and California Native Plant Society (CNPS) plant list. The Twain Harte USGS 7.5' Topographic Map and Google Earth were reviewed to determine the potential for drainages, wetlands, clearings, and access points. Species lists were obtained from the CNDDB and USFWS and are included in the Biological Study **Appendices B** and **C**.

Site Surveys:
Site surveys were conducted by foot on the following dates: 4/23/23, 5/13/23, and 6/11/23. Surveys were conducted using Nikon Monarch M7 8 X 42 binoculars, Nikon D3300 digital camera (18- 55mm and 70-300mm lens), and standard field and collection supplies.

Botanical surveys
Surveys were conducted on foot. Photos of representative vegetation were taken throughout the surveys. Where species were not readily identified in the field, plant specimens were inspected with a hand lens, sketched and, if necessary, collected and preserved then keyed in-house using a dissecting microscope and Jepson Manual.

Animal surveys
Live and dead trees were inspected with special attention to potential nesting opportunities. Potential roosts and structures were inspected for whitewash.

Mud and sand were inspected for animal tracks and structures were examined for whitewash, scat, hair and presence/absence of spider webs across openings. Dirt trails

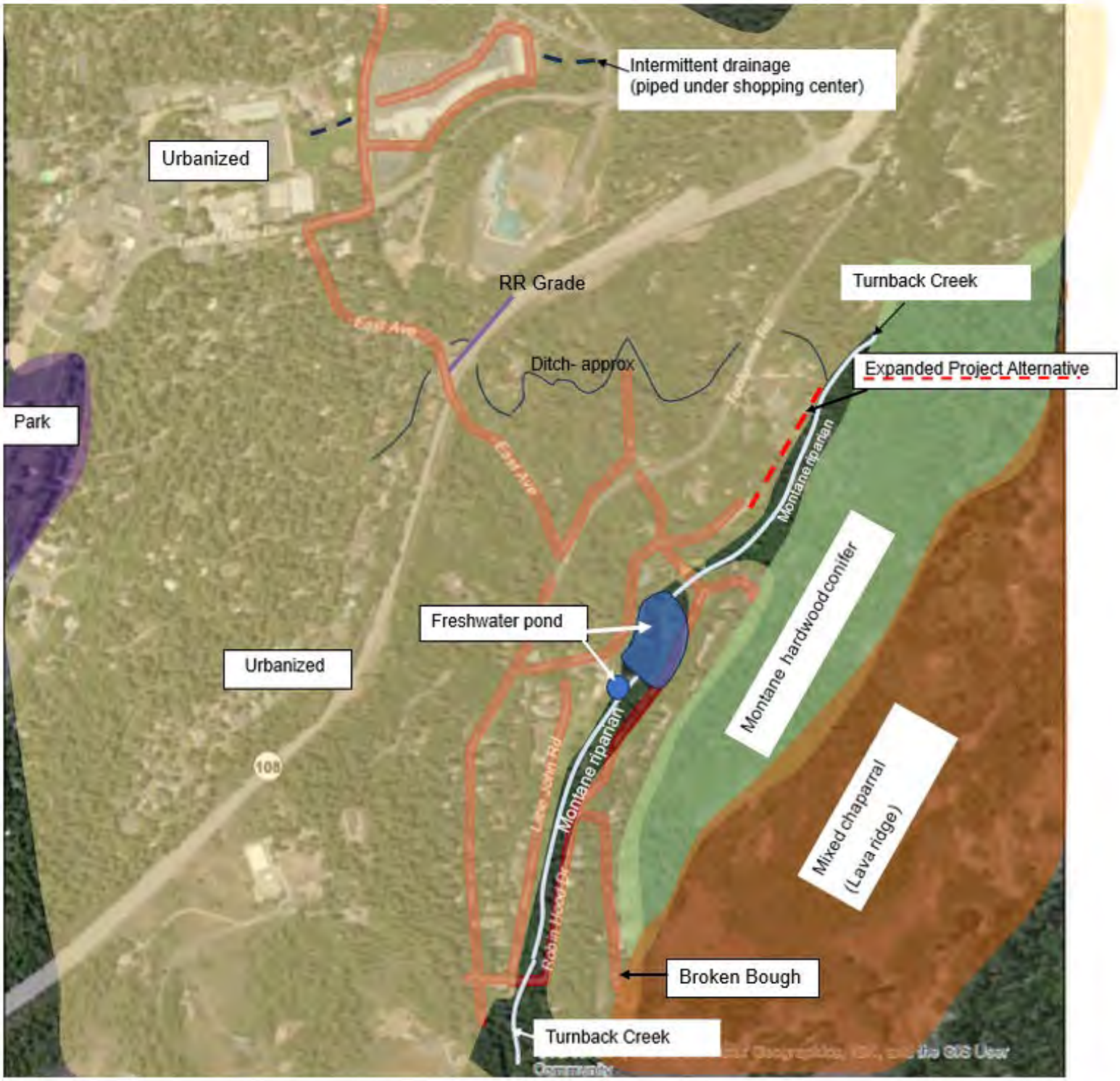
also were observed for tracks. Matted grasses indicating potential bedding areas were inspected for hair and scat.

Special Conditions:
Surveys were conducted during optimal blooming periods for special status plants and for identification of special status amphibians.

Definitions
For the purposes of this analysis, a species was considered “Special Status” of it met one or more of the following:

- Listed pursuant to the California Endangered Species Act (CESA)
- A candidate for listing pursuant to CESA
- A species petitioned for listing pursuant to CESA
- Listed pursuant to the Federal Endangered Species Act (FESA)
- A candidate for listing pursuant to FESA
- A species petitioned for listing pursuant to FESA
- Designated by the CDFW as a Species of Special Concern (SSC)
- Designated by the CDFW as a Special Animal (SA)
- Designated by the CDFW as a Fully Protected Species (FPS)
- Designated by CNPS as List 1A (Presumed extinct in California), List 1B (Rare, threatened, or endangered in California and elsewhere), or List 2 Plant (Plants rare, threatened, or endangered in California but more common elsewhere)
- Identified by the US Forest Service as Sensitive (USFS-S)
- Identified by the US Bureau of Land Management as Sensitive (BLM-S)
- Identified by the International Union for Conservation of Nature (IUCN) as vulnerable
- Identified by the Western Bat Working Group (WBWG) as High Priority
- Identified by the WBWG as Moderate Priority
- Birds identified by the US Fish and Wildlife Service as Birds of Conservation Concern (USFWS BCC)

Figure 7: Project Vegetation



2.4.3 Analysis

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant With Mitigation Incorporated.

Per the Biological Study, the following State and/or Federally Listed and Candidate Species identified by state and federal agencies as potentially occurring in the Project area were determined Unlikely to be Present:

A. State and/or Federally Listed and Candidate Species Unlikely to be Present

Monarch butterfly (*Danaus plexippus*)

The monarch butterfly is a candidate for listing under the federal endangered species act for California overwintering populations.

Adults require a diversity of blooming nectar resources, fed on throughout migration routes and breeding grounds (spring through fall). The butterfly requires milkweed (primarily *Asclepias* spp.) for both laying eggs and feeding larvae and uses a variety of roosting trees along the fall migration route. Monarchs primarily overwinter in groves along the coast of California and Baja CA in trees including blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Hesperocyparis macrocarpa*), that all serve as roost trees. Preferred locations receive indirect sunlight for overwintering, moisture for hydration, defense against freezing temperatures, and protection against strong winds with a mild winter climate which must be warm enough to prevent freezing yet cool enough to prevent lipid depletion.

The BSA lacks the species' preferred milkweed. Winter temperatures within the project area can drop below freezing and the area receives snow making the site unsuitable for wintering populations of the species. Therefore, it is not expected to occur in overwintering populations in the project area.

California red-legged frog (*Rana draytonii*)

The species is federally listed as threatened and is a California Department of Fish and Wildlife Species of Special Concern.

The species prefers quiet pools of streams, marshes, and occasionally ponds. Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. CNDDB records for the species in Tuolumne County place its range here between 1,500± and 5,030± feet in elevation. The species requires 11-20 weeks of permanent water and access to estivation habitat. The species was not present during surveys.

The nearest CNDDB record is more than 5 miles from the project site dating to 1975, the most recent occurrence in Tuolumne County. The site lacks the suitable habitat combination of quiet, relatively deep pools with permanent water for 11-20 weeks with dense or shrubby riparian vegetation (the on-site ponds are relatively shallow). Large bullfrogs were abundant within the large and small ponds in the central Sherwood Forest subdivision. The species was not found during site surveys.

A review of the *History and Status of the California Red-Legged Frog* (*Rana draytonii*) *in the Sierra Nevada California, USA* (Barry and Fellers 2013) confirms that the BSA is not historically or currently known to support CRLF.

Based on the preceding, the species is not expected to occur within the project boundaries.

Per the Biological Study, the following State and/or Federally Listed and Candidate Species identified by state and federal agencies as potentially occurring in the Project area were determined potentially Present:

B. State and/or Federally Listed and Candidate Species with Potential to be Present

Tompkins' sedge (*Carex tompkinsii)*

This plant is a candidate for listing as rare pursuant to the California endangered species act. It is listed as a California Native Plant Society List 4 Species (plant of limited distribution).

The sedge prefers chaparral, cismontane woodland, lower and upper montane coniferous forests. It sometimes occurs in association with granitic soils and blooms between May and July across a wide elevational range (1,380'-6,005').

The California Native Plant Society (CNPS) rare plant inventory identifies the species more than five miles from the project site. Potentially suitable habitat exists within the wet, granitic soils located within the project's Expanded Project Alternative site boundaries (**Figure 7**). The species was not identified during project surveys; but the suitable moist granitic soils in the Expanded Project Alternative boundaries should be re-surveyed to ensure that the species does not occur if the Expanded Project Alternative is pursued:

Expanded Alternative Project BIO-A

If the Expanded Alternative Project is pursued, a qualified biologist shall conduct a preconstruction survey for special-status plant species within 30 days prior to construction, during the appropriate blooming period within areas of suitable habitat within the Expanded Alternative Project area. If Tompkins sedge (*Carex tompkinsii*) or Mountain lady's slipper *(Cypripedium montanum)* or any other special-status plant species are not found, then no further measures are necessary. If Tompkins sedge or Mountain lady's slipper or other special-status plant species is observed during the preconstruction surveys, CDFW shall be notified at least 10 days prior to construction activities, in accordance with the California Native Plant Protection Act of 1977 (CFGC Section 1900-1913) to allow sufficient time to transplant the individuals to a suitable location. Alternatively, a buffer of at least 25 feet shall be established around any identified population through the installation of Environmentally Sensitive Area (ESA) fencing.

Mitigation Monitoring Expanded Alternative BIO-A: The measure shall be implemented by a qualified biologist (See MM-1) during the appropriate bloom period for Tompkins's sedge (May – July) or Mountain lady's slipper (March – August) occurring prior to site disturbances.

Proper implementation of the preceding is expected to minimize any potential impact to the species to a less-than-significant level.

Foothill yellow-legged frog (FYLF)

The FYLF is listed as threatened under the California endangered species act (CESA). The species is also a U.S. Bureau of Land Management and U.S. Forest Service sensitive species and a California Department of Fish and Wildlife Species of Special Concern.
FYLFs occur in or near rocky streams in valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, mixed chaparral, and wet meadow types. Per the CDFW, unlike most other ranid frogs in California, FYLFs are rarely encountered (even on rainy nights) far from permanent water—not even seasonally or to and from breeding areas. Normal ranges are believed to be less than 33 feet with only occasional "long" distance movements up to 165 feet during periods of high water. In California, breeding and egg laying may commence any time from mid-March to May depending on local water conditions. Bullfrogs are implicated in the reduction of foothill yellow-legged frog populations in the Sierra. (California Wildlife Habitat Relationships System California Department of Fish and Wildlife California Interagency Wildlife Task Group, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=1500&inline=1).

The nearest CNDDB record is within 2± miles of the project site. Potential habitat exists within Turnback Creek for the species in the Expanded Project Alternative boundaries where the stream substrate is rocky (**Figure 7**). Downstream, the habitat becomes marginal with only patches of rocky substrate and relatively heavy siltation. Large bullfrogs were identified and are abundant within the ponds in the central Sherwood Forest subdivision in association with Turnback Creek (**Figure 7)**. The species was not identified during surveys. However, given the potential good habitat in the Expanded Project Alternative area and marginal habitat in the remainder of the biological study area, the species could occur.

Turnback Creek outside of the Expanded Project Alternative area flows through a common central open space area within the Sherwood Forest subdivision encompassing a floodplain with steep banks on either side and surrounded by roadways providing setbacks from Turnback Creek of more than 50 feet except in limited locations (e.g., adjacent to the northeast portion of the upper pond, and the northern and southern Little John Road creek crossings). Proposed project activities will occur outside of the potential FYLF habitat area within this protected open space area minimizing the likelihood of direct impacts to the species with minor exceptions. However, indirect impacts to the species could occur in association with changes to water quality, equipment storage, or erosion adjacent to the potential habitat area that could adversely impact the species. The following mitigation measures are proposed to minimize this potential impact to a level of less-than significant:

Avoidance and Minimization Measure BIO-1: Project Biologist

The project proponent shall submit the name and credentials of the project's biologist(s) to CDFW for review and approval no less than 15 days prior to the onset of construction activities.

Mitigation Monitoring BIO-1
The Project Biologist shall be contracted to THCSD rather than the contractor. THCSD is responsible for contracting with a project biologist prior to allowing the construction contractor to commence site disturbances. THCSD is responsible, with the assistance of the Project Biologist, for submitting the Project Biologist's credentials to CDFW for review and approval no less than 15 days prior to commencing construction.

Avoidance and Minimization Measure BIO-2: Preconstruction FYLF Surveys
Preconstruction surveys should be conducted prior to site disturbance to re-confirm absence of FYLF within 24 hours of commencing site disturbances (including staging). The THCSD, or its representative, shall have a qualified biologist survey for FYLF within all potential habitats. If surveys are negative (i.e., no FYLF), measures BIO 3 through BIO -8 shall be implemented. If surveys are positive (FYLF are identified), BIO-2 through BIO-8 shall be implemented *and* a qualified biologist shall be present on site during all construction activities within 200 feet of Turnback Creek. The qualified biologist shall have the authority to stop work at any time as may be necessary to protect FYLFs or their habitat.

Mitigation Monitoring BIO-2: The measure shall be implemented by a qualified biologist (See MM-1) within 24 hours of commencing site disturbances (including staging). If construction is delayed or occurs in phases, a re-survey must be completed prior to recommencing work after a shut-down period of more than three months. The construction contractor is responsible for ensuring that the Project Biologist is notified with ample time to complete the survey and consult with CDFW, if necessary. If on-site biological monitoring is required throughout project construction for any activity within 200 feet of Turnback Creek, a monitoring schedule shall be executed prior to commencing construction between the Project Biologist and the contractor.

Avoidance and Minimization Measure BIO-3: ESA Fencing
Prior to commencing staging, construction, ground-disturbing or other project activities, install Environmentally Sensitive Area (ESA) fencing in the locations shown in **Figure 8:** to ensure protection of wetlands (creek, ponds, ditch), foothill yellow-legged frog habitat, and turtle habitat. Fencing shall remain in place until all project activities are completed. Any fencing falling down during construction shall be re-installed immediately. No parking shall occur adjacent to ESA fencing. No construction-related materials, equipment, trash or other related debris shall be allowed, stored, or staged within the fenced area. ESA fencing shall be shown on the final construction documents.

Mitigation Monitoring BIO-3:
ESA fencing shall be shown on final construction documents. ESA fencing shall be installed prior to commencing any staging, construction, ground disturbances or other project activities in the locations identified. The Project Biologist shall be notified by the construction contractor to confirm that ESA fencing has been properly installed prior to

commencing site disturbances. Unannounced site visits by THCSD and/or the Project Biologist will occur to confirm fencing remains in place throughout project construction. The construction contractor is responsible for maintaining the fencing throughout project construction and reinstalling any fencing that is knocked down during construction immediately.

Avoidance and Minimization Measure BIO-4: Staging and Spill Prevention
Staging areas as well as fueling and maintenance activities shall be a minimum of 100 feet from riparian or aquatic habitats. Staging areas less than 100 feet from Turnback Creek will only be allowed with authorization of the project biologist. The project proponent will prepare a spill prevention and clean-up plan.

Mitigation Monitoring BIO-4: Prior to commencing site disturbance or staging equipment, the construction contractor shall provide a staging and spill prevention plan to THCSD for compliance with this measure. Reduced setbacks must be approved prior to staging by the Project Biologist.

Avoidance and Minimization Measure BIO-5: Erosion Control
Where and if bare ground will be exposed or disturbed in conjunction with project activities, the Contractor shall prepare an Erosion Control Plan for THCSD review and approval to address soil erosion within those areas. All soils disturbed by grading shall be reseeded or hydromulched or otherwise stabilized 48 hours in advance of a rain event. A likely rain/precipitation event is any weather pattern that is forecasted to have a 30% or greater chance of producing precipitation in the project area. The discharger shall obtain likely precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at https://www.weather.gov/forecastmaps. A qualifying rain event is one that produces 0.5 inch or more of precipitation within a 48 hour or greater period between rain events. Emergency erosion control measures shall be used as reasonably requested by THCSD.

Mitigation Monitoring BIO-5
The required plan will be implemented prior to site disturbance and implemented 48 hours in advance of any rain event. A likely rain/precipitation event is any weather pattern that is forecasted to have a 30% or greater chance of producing precipitation in the project area. The discharger shall obtain likely precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at https://www.weather.gov/forecastmaps. A qualifying rain event is one that produces 0.5 inch or more of precipitation within a 48 hour or greater period between rain events. The measure is the responsibility of the construction contractor.

Avoidance and Minimization Measure BIO-6: NPDES/SWPPP
If necessary, submit to the State Water Resources Control Board Storm Water Permitting Unit, a Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit - California's National Pollution Discharge Elimination System (NPDES) general permit for construction related storm water discharges for the disturbance of one acre or more. Disturbances of less than one acre may also require an NOI for coverage under the NPDES General Permit for construction-related storm water discharge and the State Water Resources Control Board Permitting Unit shall be contacted for determination of permit requirements.

Commercial and Industrial developments may require an NOI even if less than one acre is to be disturbed. Obtain coverage or an exemption from these requirements. [Federal Water Pollution Control Act, Section 401, California Clean Water Act]. The permit may include preparation of a Stormwater Pollution Prevention Plan (SWPPP).

Silt fencing or other materials, as required, will be installed consistent with the applicable water quality requirements specified in the Project's Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP). Fencing or other erosion control materials or devices shall be shown on the final construction documents. Erosion control devices will be avoided throughout Project construction and shall be monitored and maintained by the project manager throughout construction.

Mitigation Monitoring BIO-6
The Notice of Intent to obtain Coverage shall be submitted prior to any site disturbances. The measure is the responsibility of the construction contractor.

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training
All contractors involved in site development, affected THSD personnel, will attend a mandatory Environmental Awareness Training prior to any site disturbances, including staging. A training log sign-in sheet will be maintained. The program will address proper implementation of minimization and avoidance measures contained herein. A video shall be prepared and is mandatory viewing prior to entering the project site for contractors or personnel not participating in initial training. Construction personnel shall be informed that if a FYLF is encountered in the work area, construction will stop and CDFW will be contacted for guidance.

Mitigation Monitoring BIO-7
The required mitigation measure will be implemented prior to site disturbance and for new employees prior to commencing site work. The Project Biologist or other environmental consultant may be contracted by THCSD to accomplish this task. THCSD is responsible for contracting with a qualified entity to provide Environmental Awareness Training. Ensuring that all on-site workers have received training prior to working on site is the responsibility of the construction contractor.

Avoidance and Minimization Measure BIO-8: Stop Work
If FYLFs are found at any time during project work, construction will stop and CDFW will be contacted immediately for further guidance.

Mitigation Monitoring BIO-8
The measure shall be implemented throughout project construction and is the responsibility of the construction contractor. The project biologist has the authority to issue a stop work order pursuant to this measure.

Proper implementation of the preceding is expected to minimize the potential direct and indirect impacts to the species to a level of less than significant.

Figure 8: ESA Fencing Locations

Within the Expanded Project Alternative Area high value FYLF habitat occurs which lacks the open space "buffer" found in the remainder of the project area through Sherwood Forest. Activities would occur within 50 feet of Turnback Creek and could directly impact FYLF, a potentially significant adverse impact. The following mitigation measure is required in addition to those identified in the preceding paragraphs:

Expanded Alternative Project BIO-B – FYLF Avoidance
Prior to site disturbance in the Expanded Alternative Project boundaries, a qualified biologist shall survey for FYLF 24 hours or less before construction, including staging, commences. At least one day-time and one night-time survey is required. If findings are negative, ESA fencing shall be installed as shown in **Figure 8**. Fencing shall remain in place until all project activities are completed. Any fencing falling down during construction shall be re-installed immediately. No parking or material storage shall occur adjacent to ESA fencing. If findings are positive, work will not proceed until a formal consultation is undertaken with the United States Fish and Wildlife Service.

Mitigation Monitoring BIO-B: The measure shall be implemented by a qualified biologist (See MM-1) within 24 hours of commencing site disturbances (including staging). If construction is delayed or occurs in phases, a re-survey must be completed prior to recommencing work after a shut-down period of more than three months. The construction contractor is responsible for ensuring that the Project Biologist is notified with ample time to complete the survey and consult with CDFW, if necessary. If on-site biological monitoring is required throughout project construction, a monitoring schedule shall be executed prior to commencing construction between the Project Biologist and the contractor. Applicant shall comply with monitoring provisions of **BIO-3** for ESA Fencing**.**

Western pond turtle (WPT)

The WPT is a U.S. Forest Service Sensitive species and a Priority 3 CDFW Species of Special Concern. It is also a U.S. BLM Sensitive Species in the southern portion of its range and has been petitioned for listing under the federal endangered species act (where it remains under review since 2015). The species is not listed pursuant to either the state or federal endangered species acts. The species is not a fully protected animal pursuant to Fish and Game Code Sections 3511, 4700, 5050 and 5515.

WPTs occur in a broad range of habitats include flowing streams, permanent lakes, ponds, reservoirs, settling ponds, marshes and other wetlands. The species may remain active year-round; however, this tends to occur only in the southern part of its range. WPTs require upland habitat suitable for nesting and overwintering. The species can persist, at least over moderate periods of time, in modified habitats with high human traffic (i.e. mill ponds).

Western pond turtles mate throughout the spring, summer, and fall. Nesting usually occurs in the spring or early summer normally within 300 feet of water, but may be located up to 1500 feet from water. Eggs hatch in the fall in the northern range and hatchlings often remain in the nest through the first winter. Soils for nesting must be loose enough to allow for excavation with disturbances infrequent enough to avoid nest disturbance. (Thomson, 2016).

The species was identified in the on-site pond/lake in prior years, but was absent during project surveys (perhaps due to relatively cool temperatures). It is assumed to be present. Given the proximity of the on-site ponds (**Figure 7**) to proposed construction activities, the potential for direct impacts to pond turtles could occur. Any potential nesting sites would be confined to the central open space area surrounding the creek and ponds given the presence of a well-traveled roadway circling the open space and surrounding residential development.

To ensure that no turtles are nesting near the proposed construction area or present during construction, the following minimization and avoidance measures are included:

Avoidance and Minimization Measure BIO-9: Preconstruction Survey/Relocation for Western Pond Turtles

Within 48 hours of commencing site disturbances, the THCSD, or its representative, shall have a qualified biologist survey for western pond turtles in the on-site ponds within Sherwood Forest Subdivision. If no WPT are found, Mitigation and Minimization Measures BIO- 2 through BIO-5 will be implemented. If WPT are identified, environmental training shall include and the following specific measures will be implemented to avoid WPT:

If found within project construction areas where harm to the turtle may occur from project activities, contractors shall contact the project biologist. The turtle first will be given the opportunity to leave the site on its own if the turtle actively is in the process of attempting to leave the site and is likely to successfully do so within the hour in the opinion of the qualified biologist. Otherwise, the qualified biologist will relocate the turtle downstream of the work area along the creek where permanent or nearly permanent water is pooled or present. At the discretion of the qualified biologist, turtles may be located upstream if higher quality pools with permanent or nearly permanent pools are identified. [California Code of Regulations, Title 14, Division 1, Chapter 5, Subsection 40(b)]1.

Mitigation Monitoring BIO-9: The measure shall be implemented within 48 hours of commencing site disturbances by a qualified biologist (See **MM-1**). The construction contractor is responsible for ensuring that the Project Biologist is notified immediately when a WPT is found within the construction boundaries during construction. The Project Biologist is responsible for WPT relocation, if necessary.

Avoidance and Minimization Measure BIO-3: ESA Fencing

Avoidance and Minimization Measure BIO-4: Staging and Spill Prevention

Avoidance and Minimization Measure BIO-5: Erosion Control

[1] Pursuant to California Fish and Game Code Title 14, Subsection 40(b) the capture, temporary collection, or temporary possession of native amphibians done to avoid mortality or injury in connection with lawful activities is permitted and such live capture and release of native amphibians done to avoid death or injury may occur with the permission of the CDFW. Because WPTs are not listed species pursuant to the state or federal endangered species act, neither an incidental take permit nor consultation beyond securing permission from CDFW to capture and release the individuals, is required.

Avoidance and Minimization Measure BIO-6: NPDES/SWPPP

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Proper implementation of the preceding is expected to minimize or avoid impacts to the species to a level of less than significant.

California spotted owl (Sierra Nevada population) ***Strix occidentalis ssp. occidentalis***
The owl is petitioned for listing as threatened under the federal endangered species act (as of February 2023), is a U.S. Bureau of Land Management sensitive species, CDFW species of special concern, U.S. Forest Service sensitive species and USFWS Bird of conservation concern.

The owl prefers mixed conifer forests, often with an understory of black oaks & other deciduous hardwoods with a canopy closure of greater than 40%. It is most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water. The species also occupies broadleaved upland forest, lower montane coniferous forest, and upper montane coniferous forest.

The nearest CNDDB likely nesting location for the species is less than two miles east of the project area with one isolated sighting of a deceased owl approximately 0.2 miles southeast of the southern-most portion of the project site. Suitable habitat exists within the southern portion of the project site east of the dead-end off Broken Bough (upper-most reach of the project area, **Figure 7**). Given the existence of small-lot residential development within the project boundaries, it is unlikely that the species would nest within the project boundaries. However, it is possible that the species could forage within the project boundaries, especially within a 300-foot buffer of the southeastern-most portion of the project boundaries. The species was not identified during surveys; however, given the presence of marginal habitat, it could be present in the future or prior to construction. Therefore, preconstruction surveys should be conducted prior to site disturbance to re-confirm absence as follows:

Avoidance and Minimization Measure BIO-10: Preconstruction Survey Birds

Prior to construction occurring between February 1st and August 30th (e.g., excavation, ground disturbance, or vegetation removal) a preconstruction survey for nesting birds will be conducted in accordance with the CDFW guidelines and a no-disturbance buffer will be established, if necessary.

If equipment staging, site preparation, vegetation removal, grading, excavation or other project-related construction activities are scheduled during the avian nesting season (generally February 1 through August 30), a focused survey for active nests would be conducted by a qualified biologist within 14 days prior to the beginning of project-related activities.
Surveys shall be conducted in all suitable habitats in the BSA.
If the pre-construction surveys identify nesting bird species within areas that are within 500 feet of construction activities for non-raptors and within 0.5 mile for raptors, the following shall be implemented:

A. Project-related construction impacts shall be avoided by establishment of appropriate no-work buffer zones to limit construction activities near the nest site. The no-work buffer zone shall be delineated by highly visible temporary construction fencing and shall be a minimum of 500 feet from non-raptor nests and 0.5 mile from raptor nests, unless a qualified biologist, in consultation with CDFW, determines that alternative buffers are permissible due to the nature and location of the specific species, its nest, and existing conditions to which the species has been habituated. Alternative buffers shall be established for special status non-raptor nests in consultation with CDFW.

B. In consultation with CDFW, monitoring of nest activity by a qualified biologist shall be required if the construction activity has potential to adversely affect the nest or nesting behavior of the bird.

C. No construction activity shall commence within the no-work buffer zone until a CDFW-approved qualified biologist confirms that the nest is no longer active (e.g., young have fledged).

D. Canada geese depredation is an exception to these provisions per measure BIO-11.

Mitigation Monitoring BIO-10: The measure shall be implemented prior to any constructing occurring between February 1st and August 30th of the construction year. If construction is delayed or occurs in phases, a re-survey must be completed prior to recommencing work after a shut-down period of more than three months if construction occurs between February 1st and August 30th of the construction year. The construction contractor is responsible for ensuring that the Project Biologist is notified with ample time to complete the survey and consult with CDFW, if necessary.

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

C. Special Status Species (Non-Listed, non-candidates) Present or Potentially Present

Mariposa clarkia (*Clarkia biloba* ssp. *australis)*

The plant is a California Native Plant Society listed 1B.2 (Fairly/Moderately endangered in California) plant and a U.S. Forest Service Sensitive species. It prefers chaparral and cismontane woodlands at elevations between 3,200 and 4,850 feet. The species blooms between April and July.

The nearest CNDDB record is from 1958 and is mapped approximately within ½ mile. The species was identified within the Expanded Project Alternative boundaries in somewhat rocky soils near the road and above rock outcrops in association with buckbrush (**the exact location is identified in the Biological Study, but is withheld here for confidentiality to protect the species**). Project activities could impact the species during staging and project operations, although the proposed waterline expansion avoids the population. Therefore, avoidance is possible with the installation of ESA fencing. The following mitigation is proposed if the Expanded Project Alternative is pursued.

Expanded Alternative Project BIO-C

If the Expanded Alternative Project is pursued, a qualified biologist shall conduct a preconstruction survey for Mariposa clarkia (*Clarkia biloba* ssp. *australis*) within 30 days prior to construction, during the appropriate blooming period within areas of suitable habitat within the Expanded Alternative Project area. A buffer of at least 25 feet shall be established around identified populations through the installation of Environmentally Sensitive Area (ESA) fencing to remain throughout project construction. If full avoidance is infeasible, those populations that can be protected will be protected through the installation of ESA fencing. For populations that cannot be avoided, CDFW shall be notified at least 10 days prior to construction activities, in accordance with the California Native Plant Protection Act of 1977 (CFGC Section 1900-1913) to allow sufficient time to allow for seed collection.

Mitigation Monitoring Expanded Alternative Project BIO-C: The measure shall be implemented by a qualified biologist (See MM-1) during the appropriate bloom period for Mariposa clarkia (May – July) occurring prior to site disturbances.

Mountain lady's slipper (*Cypripedium montanum)*

This orchid species is a California Native Plant Society List 4 (limited distribution plant) and a U.S. Bureau of Land Management sensitive species. It prefers broad-leafed upland forest, cismontane woodland, and lower montane coniferous forest at elevations between 605' and 7,300' feet blooming between March and August.

There are no records in the CNDDB for this species. Calflora identifies a 1944 record near downtown Twain Harte. The species was not identified during surveys during the bloom period for the species; however, suitable habitat exists near Turnback Creek in the recommended project area and will be avoided during construction pursuant to already identified project mitigation measures as follows:

Avoidance and Minimization Measure BIO-3: ESA Fencing

However, near Turnback Creek within the Expanded Alternative Project area, project activities may occur within suitable habitat for the species, therefore, additional mitigation is required in the Expanded Alternative Project area as follows:

Expanded Alternative Project BIO-A

Proper implementation of the preceding is expected to minimize or avoid impacts to these plant species to a level of less than significant.

Oak titmouse (*Baleophus inornatus)*

The oak titmouse is a USFWS Bird Species of Conservation Concern. No CNDDB records are currently maintained for the species. It is a common resident in a variety of habitats, but is primarily associated with oaks. And occurs in montane hardwood-conifer, montane hardwood, blue, valley, and coastal oak woodlands, and montane and valley foothill riparian habitats in cismontane California. The species' range encircles San Joaquin Valley onto the western slope of the Sierra Nevada. While not observed during surveys, the species is widespread throughout the project area and is expected to occupy the

BSA's oak woodlands. The following measures are proposed to ensure no impacts to the species will occur:

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Avoidance and Minimization Measure BIO-10: Preconstruction Survey Birds

Evening grosbeak (*Coccothraustes vespertinus)*
This bird species is a US Fish and Wildlife Service bird species of conservation concern. Preferred breeding and foraging habitats include dense (mixed) coniferous forests dominated by firs (especially red fir). In the non-breeding season, it apparently depends upon an ample supply of buds, seeds, berries or other fruits, in trees and shrubs, rather than on any particular habitat. The grosbeak also forages in oaks, willows, and aspens, sometimes at a distance from nest. The species breeds approximately May 15 to August 10. Given the relatively broad habitat requirements for the species, marginal suitable habitat exists for this species on the project site. The species wasn't identified during surveys, but could occur prior to construction. Therefore, preconstruction surveys should be conducted prior to site disturbance to re-confirm absence as follows:

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Avoidance and Minimization Measure BIO-10: Preconstruction Survey Birds

Olive-sided flycatcher (*Contopus cooperi*)
This bird species is a US Fish and Wildlife Service bird species of conservation concern. It is most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes or other open terrain. Extent and density of forest habitat is less important than the amount of air space that can be scanned from its highest perches. The flycatcher breeds approximately May 20 – August 31. Marginal habitat exists in proximity to the lake in Sherwood Forest subdivision. The species was not identified during surveys; however, given the presence of marginal habitat, it could be present in the future or prior to construction. Therefore, preconstruction surveys should be conducted prior to site disturbance to re-confirm absence as follows:

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Avoidance and Minimization Measure BIO-10: Preconstruction Survey Birds

Nuttall's woodpecker
The Nuttall's woodpecker is a USFWS Bird Species of Conservation Concern. The species is a common, permanent resident of low-elevation riparian deciduous and oak habitats and surveys in oak woodlands. While not identified as having the potential to occur per the USFWS species list, a pair was found on the project site in suitable habitat (Figure 5).

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Avoidance and Minimization Measure BIO-10: Preconstruction Survey Birds

Proper implementation of the preceding is expected to minimize or avoid impacts to these bird

species to a level of less than significant.

Birds

The Migratory Bird Treaty Act (MBTA) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. The migratory bird species protected by the Act are listed in 50 CFR 10.13. Most bird species are protected pursuant to the MBTA. Some birds have additional protections under state and federal laws.

The special status oak titmouse, evening grosbeak, olive-sided flycatcher and California spotted owl are identified in Table 2 as having the potential to occur within the project boundaries. A pair of Nuttall's woodpeckers was identified within the BSA during surveys. All of these are USFWS bird species of conservation concern. The California spotted owl is also petitioned for listing as threatened under the federal endangered species act. These species are addressed in the preceding paragraphs. In addition to these special status bird species, most native bird species are protected pursuant to the MBTA that could or do occur in the BSA (See **Appendix A** for species identified on site during surveys). In addition to those birds listed in Appendix A, the following species found on site are of note:

Canada geese

Canada geese were observed on site foraging throughout the BSA and with goslings on the pond within the BSA. Although unlikely to be necessary, as it appears that nesting is occurring in project open space, it is noted that while Canada Geese are protected pursuant to the Migratory Bird Treaty Act; but unlike many other MBTA-protected species, 50 Code of Federal Regulations Section 21.50 allows some flexibility for depredation under specific circumstances for resident Canada geese by registering online with the USFWS2. Depredation normally occurs in the form of a qualified biologist treating unhatched eggs to ensure that they do not hatch. To ensure that this option is included for this project should nesting occur outside of existing open space boundaries, the following measure is incorporated:

Avoidance and Minimization Measure BIO-11 Canada Geese Depredation
Pursuant to 50 Code of Federal Regulations Section 21.50, should a nesting Canada goose be identified within proposed work boundaries (i.e., outside of subdivision common area surrounding Turnback Creek), depredation may occur by registering online with the USFWS3. Depredation will occur, if necessary, in the form of a qualified biologist treating unhatched eggs to ensure that they do not hatch.

Mitigation Monitoring BIO-11:
The measure shall be implemented based on preconstruction surveys conducted by the

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[2] https://epermits.fws.gov/eRCGR/ and https://www.fws.gov/forms/3-200-13.pdf

3 https://epermits.fws.gov/eRCGR/ and https://www.fws.gov/forms/3-200-13.pdf

Project Biologist. Because the species can nest post-surveys, the construction contractor is responsible for reporting any new nesting activity to the Project Biologist if it is observed within the work area. The Project Biologist is responsible for determining the appropriate measures and implementing them.

In addition to the special status bird species noted above, other bird species protected pursuant to the Migratory Bird Treaty Act could or do occur in the BSA (See **Appendix A** for species identified on site during surveys). To minimize or avoid potential disturbances to nesting and/or breeding bird species protected pursuant to the MBTA, the following measures also apply to all MBTA protected bird species:

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Avoidance and Minimization Measure BIO-10: Preconstruction Survey Birds

Proper implementation of the preceding is expected to minimize or avoid impacts to the species to a level of less than significant.

Bats

The following bat species has the potential to occur within the BSA (see Table 2):

Spotted bat (*Euderma maculatum*)

This bat is a CDFW species of special concern and at high-risk per the Western Bat Working Group. It occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. The bat feeds over water and along washes almost entirely on moths. The species needs rock crevices or caves for roosting. The nearest CNDDB record occurs more than seven miles from the project site. The species was not identified during surveys; however, given the wide variety of habitats suited to the species (mixed conifer, and presence of lake for foraging), it could roost and/or forage within the project boundaries. To ensure that no impacts to this species may occur, the following is required:

Avoidance and Minimization Measure BIO-12: Preconstruction Surveys Suitable Bat Roosting (or Nursery) Areas & Provisions for Protection, if Identified
At least 15 days before commencing ground-disturbing activities between April and September of the construction year, a qualified biologist will survey snags, trees, rock crevices and other suitable cavities and structures in the BSA for roosting bats or bat nurseries. If bats are not found and there is no evidence of bat use, construction may proceed. If bats are found or evidence of use by bats is present, CDFW shall be consulted for guidance on measures to avoid or minimize disturbance to the colony or nursery. Subject to CDFW approval, measures may include excluding bats from roosts before construction begins.

Mitigation Monitoring BIO-12:
The measure shall be implemented at least 15 days prior to ground disturbance occurring between April and September of the construction year. The construction contractor is responsible for ensuring that the Project Biologist is notified with ample time to complete the survey and consult with CDFW, if necessary.

Avoidance and Minimization Measure BIO-13: Hours of Construction.
Project construction shall be limited to 7:00 a.m. to 7:00 p.m. unless an emergency situation exists.

Mitigation Monitoring BIO-13:
The measure shall be implemented throughout project construction and is the responsibility of the construction contractor. THCSD has the authority to determine if an emergency situation exists and alternative hours may be implemented. THCSD is responsible for enforcing the measure if complaints are received.

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Proper implementation of the preceding is expected to minimize or avoid impacts to this bat species to a level of less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

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

Less Than Significant with Mitigation Incorporated.
As shown in **Figure 7**, the project area:

A. Crosses a man-made ditch (which is piped below the roadway in the project area and will not be impacted by the project)
B. Will occur surrounding an upper and lower pond within a central open space within the Sherwood Forest Subdivision
C. Will occur around a central open space containing Turnback Creek (a USGS perennial stream) within the Sherwood Forest Subdivision
D. Will cross Turnback Creek in two locations within the Sherwood Forest Subdivision over existing roadways without furthering encroachments into the creek
E. Could encroach within 25 feet of Turnback Creek in the Alternative Expanded Project Area.
F. Will avoid an intermittent drainage near the Twain Harte Shopping Center where the drainage is piped beneath the shopping center.

No fill of the identified drainages, ponds, or ditch (**Figure 7**) or alterations within the banks of streams is proposed or anticipated in conjunction with the proposed Project. The introduction of machinery and construction materials to the site has the potential to introduce non-native invasive species and runoff from site construction could indirectly impact water quality in the on-site ponds, ditch and creek adjacent to the construction area—a potentially significant adverse impact. To avoid inadvertent encroachment within

these sensitive habitats, and to ensure that non-native invasive species are not spread to these habitats and the protection of water quality, the following measures are included:

Avoidance and Minimization Measure BIO-14: Minimize the Spread of Invasive Plant Species
Throughout project construction:

- All hay, straw, hay bales, straw bales, seed, mulch or other material used for erosion control on the project site shall be free of noxious weed[4] seeds and propagules (Food and Agriculture Code Sections 6305, 6341 and 6461).

- All equipment brought to the project site shall be thoroughly cleaned of all dirt and vegetation prior to entering the site to prevent importing noxious weeds and shall be cleaned of all dirt and vegetation prior to exiting the site to prevent exporting noxious weeds. (Food and Agriculture Code Section 5401).

- All material brought to the site, including rock, gravel, road base, sand, and topsoil, shall be free of noxious weeds[5] and propagules. (Food and Agriculture Code Sections 6305, 6341 and 6461).

Mitigation Monitoring BIO-14:
The measure shall be implemented throughout project construction and is the responsibility of the construction contractor.

Avoidance and Minimization Measure BIO-3: ESA Fencing

Avoidance and Minimization Measure BIO-4: Staging and Spill Prevention

Avoidance and Minimization Measure BIO-5: Erosion Control

Avoidance and Minimization Measure BIO-6: NPDES/SWPPP

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

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?

Less Than Significant with Mitigation
No migratory deer habitat occurs in the study area which is bisected with numerous high-volume roadways and fragmented by residential development. Turnback Creek provides a wildlife corridor; however, that corridor will be maintained during project construction and after the

[4] Noxious weeds are as defined in Title 3, Division 4, Chapter 6, Section 4500 of the California Code of Regulations and the California Quarantine Policy – Weeds (Food and Agriculture Code, Sections 6305, 6341, and 6461).
[5] Ibid.

project completion with project activities confined to existing roadways. Therefore, no long-range alternations to habitat will occur.

However, movements of native or resident wildlife may be impeded during construction activities as a result of open trenching or construction materials (e.g., pipes) within road ROWs that could inadvertently trap wildlife, a potentially significant adverse impact. The following mitigation measure is proposed to minimize or avoid this impact and ensure the protection of both wildlife and construction workers:

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Avoidance and Minimization Measure BIO-15: Avoid Inadvertent Animal Trapping During Construction

To avoid inadvertently trapping special status or common animal species during construction, all excavated steep-walled holes or trenches more than two feet deep shall be covered at the end of each working day with plywood or similar material, or provided with one or more escape ramps constructed of earth fill or wooden planks, or equivalent, at each end of the trench. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a tapped animal is discovered, the contractor shall place an escape ramp or other appropriate structure to allow the animal to escape. Alternatively, the contractor shall contact the project biologist or California Department of Fish and Wildlife for assistance. Similarly, stored pipes or other materials providing potential cover for animals will be inspected prior to installation or use to ensure that they are unoccupied.

Mitigation Monitoring BIO-15: The measure shall be implemented throughout project construction. The project biologist and/or THCSD staff are responsible for making unannounced inspections to ensure that the measure is being properly implemented and maintained. It is the responsibility of the construction contractor to implement the measure.

Proper implementation of the preceding measure is expected to reduce the potential impact to species movements to a level of less-than-significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant. Tuolumne County does not have a tree preservation ordinance, per se. It has an anticipatory tree removal ordinance. No trees have been removed in anticipation of the proposed Project, therefore, the local tree ordinance is inapplicable.

The state adopted Public Resources Code 21083.4 addressing the conversion of oak woodlands statewide. Impacts to oak woodlands protected pursuant to PRC 21083.4 are considered potentially significant pursuant to CEQA. No native oak trees are proposed for removal within the Project boundaries; however, work within the public ROW may impact the roots zones of native black oaks. However, black oaks are not subject to PRC 21083.4 as they are commercially harvested oaks. Therefore, no impacts to oak woodlands in this urban setting are anticipated.

It is noted, however, that impacts to black oaks are addressed in conjunction with minimizing visual impacts that could occur if black oaks are weakened during construction activities due to construction within the root zones of these trees (See this study, Aesthetics).

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Neither a Habitat Conservation Plan (HCP) nor a Natural Community Conservation Plan (NCCP) exists for the area within the Project boundaries or the vicinity. Therefore, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.5 CULTURAL RESOURCES

V. CULTURAL RESOURCES. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

2.5.1 Background and Setting

The following cultural resources studies, analyses, and determinations were prepared for this Project and previously incorporated by reference as follows:

Solano Archaeological Services (SAS), June 2023. *Cultural Resources Inventory and Evaluation Report Twain Harte Community Services District – Sherwood Distribution Improvements Project Twain Harte, Tuolumne County, California*

Because project funding could involve federal funds (e.g., SWRCB State Revolving Fund); this project was evaluated to address the requirements of both the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act and its implementing regulations in Title 36 Code of Federal Regulations Part 800 (36 CFR 800).

The Area of Potential Effect (APE) consists of approximately 11,700 linear ft. of water pipeline corridor located largely within the prism of local roads in the community of Twain Harte (**Figure 3**). The APE has been established to encompass the maximum limits of potential future ground-disturbing activities that would reasonably be expected from the proposed Project, including but not limited to, all existing parcels, pipeline installation, potential access routes, and equipment staging and laydown areas.

SAS was tasked with updating information on previously-documented sites and features within the Area of Potential Effect (APE), identifying previously undocumented cultural resources, and evaluating potentially affected resources per National Register of Historic Places (NRHP), and California Register of Historical Resources (CRHR) criteria.

A record search conducted through the Central California Information Center of the California Historical Resources Information System indicated that four historic-era cultural resources have been documented within the APE—all north of SR 108:

Table 6: Cultural Resources Identified in the APE

Identifier	Description	Eligibility	Potential Project Effects
P-55-000006	Small segment of abandoned rail grade originally built and used by the Madera Sugar Pine Lumber Company (MSPLC) in the early 20th century and last recorded in 1993 (Paved segment of Sugar Pine RR Grade trail crossing East Avenue)	SAS recommends the segment of P-55-000006 in the APE not eligible for NRHP/CRHR listing under Criterion C/3. Also, the history of the Sugar Pine Railroad is well known and documented. It is unlikely that any additional research on the line would result in the small abandoned and modified segment in the APE being raised to a significant level. Consequently, SAS recommends that the data potential of P-55- 000006 has been exhausted through the current level of research and that it is not eligible for NRHP/CRHR listing under Criterion D/4.	Determined ineligible.
P-55-000054	Sonora-Mono Road segment in the APE consists of a stretch of present-day Twain Harte Drive extending to the west from Tiffeni Drive to East Avenue, a distance of approximately 350 ft.	The Sonora-Mono Road was recommended eligible for NRHP listing in 1996. It is unlikely that further research into the specific segment in the APE would result in data that would elevate this minor portion to a level of historical significance. Therefore, SAS recommends that the data potential of the segment of P-55-000054 situated within the APE has been exhausted and it is not eligible for NRHP/CRHR listing under Criterion D/4.	Determined ineligible. Due to the configuration of the APE and the nature of the Project, the resource would not be subject to adverse effects or significant impacts (i.e., it is avoided by the project)
P-55-005959	A segment of the Soulsbyville Ditch. The segment of P-55-008270 within the current APE converged with the alignment of the Soulsbyville Ditch (P-55-005959) and occupy the same channel.	Per Marvin and Francis (2011) the Soulsbyville Ditch appears to be eligible for NRHP. SAS concurs.	Due to the configuration of the APE and the nature of the Project, the resource would not be subject to adverse effects or significant impacts (i.e., it is avoided by the project)
P-55-008270	See above. The segment of the TUD's ditch within and adjacent to the APE passes under East	Per Marvin and Francis (2011) the Soulsbyville Ditch appears to be eligible for NRHP. SAS concurs.	Due to the configuration of the APE and the nature of the Project, the

Identifier	Description	Eligibility	Potential Project Effects
	Avenue, eventually turns south, and passes under SR-108 in a concrete box culvert. The alignment appears unchanged from its original documentation in 2011, and partial update in 2019. The SAS field team specifically examined and mapped a portion of the ditch (which is the same ditch as delineated P-55-005959) extending approximately 125 ft. to the northeast of the centerline of East Avenue, and about 79 ft. to the southwest.		resource would not be subject to adverse effects or significant impacts (i.e., it is avoided by the project).

On June 1st, 2023, SAS archaeologists conducted an intensive pedestrian survey walking a single transect along the proposed Project alignments due to the narrow configuration of the APE. Digital photographs were taken of the APE and surrounding vicinity, and observations were recorded in detail. A Trimble Geo 7x GPS unit was utilized to verify the APE alignment locations and boundaries (NAD 83), and plot recorded cultural resources. The locations of previously documented resources along the APE were revisited and existing information on these resources was updated as necessary. Note: The locations of all resources are identified in the Cultural Resources Study but are withheld here due to confidentiality and protection of the sites.

An intensive survey did not identify any previously undocumented prehistoric or historic-era cultural resources or archaeologically sensitive landforms within the APE but did update information on the four previously identified historic-era resources.

Expanded Alternative Project

The Expanded Alternative Project area was not surveyed or evaluated for this analysis. However, it is apparent that historical artifacts of unknown origin that have not been recorded are located within this area. Therefore, the following measure is included for the Expanded Alternative Project described in the Cultural Resources section of this study:

Expanded Alternative Project – CULT-A

Prior to undertaking the Expanded Alternative Project, a cultural resources survey of the expansion area shall be undertaken. Known historical artifacts in the area shall be evaluated and recorded and an addendum or subsequent IS/MND shall be prepared in accordance with the State CEQA Guidelines Sections 15162- 15164.

Mitigation Monitoring Expanded Project Alternative CULT-A

Prior to approving environmental document for Expanded Project Alternative, the cultural resources survey shall be conducted by a qualified archaeologist. An addendum or

subsequent environmental study shall be conducted in accordance with CEQA Guidelines Sections 15162- 15164, as necessary.

2.5.2 Analysis

a) Cause a substantial adverse change in the significance of a historical resource as defined in the Government Code, State CEQA Guidelines Section 15064.5?
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant with Mitigation Incorporated.
Based on the cultural resources study performed for the project, the APE has four historical resources identified in the APE. Two were determined ineligible for listing under a local, state or federal register. Two are outside the potential areas that may be impacted by the project and are therefore not subject to adverse effects or significant impacts. In short, no new resources were identified and the proposed Project would not affect any of the sites previously identified and as such the proposed Project would have no effect on historic properties per Section 106, and no impact on historical resources per CEQA.

Surveys were conducted for surface evidence of resources. Site disturbances could uncover additional resource features below surface that could be damaged or destroyed prior to assessing their importance—a potentially significant adverse impact. The following Mitigation Measure is proposed to reduce that impact:

Mitigation Measure CULT-1: Inadvertent Discoveries
If a cultural resource is discovered during construction activities, the contractor shall comply with the following provisions:

A. The Contractor's project manager shall notify the Twain Harte Community Services District by telephone within 1 hour of the discovery or the next working day if the department is closed. The THCSD shall promptly notify their qualified professional archaeologist.

B. When the cultural resource is located outside the area of disturbance, a qualified professional shall be allowed to photodocument and record the resource and construction activities may continue during this process.

C. When the cultural resource is located within the area of disturbance, all activities that may impact the resource shall cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by a qualified professional may continue. A qualified professional archaeologist shall be allowed to do a site survey to ascertain the need for evaluation work.

D. When the cultural resource is determined to not be significant, the qualified professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the qualified professional.

E. When a resource is determined to be significant, the resource shall be avoided with said

resource having boundaries established around its perimeter by a qualified professional or a cultural resource management plan shall be prepared by a qualified professional to establish measures formulated and implemented in accordance with Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) to address the effects of construction on the resource. The qualified professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the qualified professional.

For the purposes of implementing this measure, a "qualified professional" is an individual previously determined to be a qualified professional by the Tuolumne County Community Development Department Planning Division (https://www.tuolumnecounty.ca.gov/DocumentCenter/View/9984) and a "cultural resource" is any building, structure, object, site, district, or other item of cultural, social, religious, economic, political, scientific, agricultural, educational, military, engineering or architectural significance to the citizens of Tuolumne County, the State of California, or the nation which is 50 years of age or older or has been listed on or is eligible for listing on the National Register of Historic Places, the California Register of Cultural Resources, or any local register.

Mitigation Monitoring CULT-1: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction contractor with input from a qualified cultural resources professional, if necessary.

Proper implementation of this mitigation measure will result in a less-than-significant impact.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant With Mitigation Incorporated. Based on the cultural resources study performed for the project, there are no cemeteries located in close proximity to the Project site and no burials are known to have occurred on the site. However, grading and excavation in conjunction with site development has the low potential to uncover unanticipated subsurface resources—a potentially significant adverse impact. The following Mitigation Measure is proposed to reduce that impact:

Mitigation Measure CULT-2 Treatment of Human Remains and Sacred Objects
No human remains or sacred objects have been identified in the project area, but there is always a possibility that excavation, or other actions could expose human burials previously unknown. Such remains are protected by state and federal laws and all project personnel must comply fully with applicable laws regarding the treatment of human remains including contacting the County coroner. The policies set forth in the American Indian Religious Freedom Act of 1978 and amendments (92 Stat. 469) should be honored by THCSD and its contractors. If the discovery is on private land, provision for treatment and disposition of any human remains will be in accordance with Section 7050.5 of the California Health and Safety Code, Sections 5097.94, 5097.98, of the California Public Resources Code, and Section 15064.5 of the California Code of Regulations implementing the California Public Resources Code, Sections 21000-21177.

Mitigation Monitoring CULT-2. The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction contractor and, where necessary, the County Coroner, and/or qualified archaeologist.

Proper implementation of this mitigation measure will result in a less-than-significant impact.

2.6 ENERGY

VI. ENERGY. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact to wasteful, inefficient, or unnecessary consumption of energy resources during project consumption or operation?	☐	☒	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	☐	☐	☐	☒

2.6.1 Background

The project will result in the use of energy during construction. Long-range operations are not expected to use energy based on the nature and location of the project – replacing existing water pipelines.

2.6.2 Analysis

a) Result in potentially significant environmental impact to wasteful, inefficient, or unnecessary consumption of energy resources during project consumption or operation?

Less Than Significant with Mitigation Incorporated.
Construction is expected to consume fossil fuels. Inefficient use of fossil fuels may incrementally contribute to cumulatively significant adverse impacts to energy availability. Implementation of the following mitigation measures incorporating Best Performance Standards, would ensure that equipment uses energy efficiently.

Mitigation Measure ENERGY-1: Construction Equipment
To the extent feasible, the following measures shall be incorporated into Project design and construction:

- On-site idling of construction equipment shall be minimized (no more than five minutes maximum).
- Biodiesel shall be used as an alternative fuel diesel for at least 15 percent of the construction vehicles/equipment used if there is a biodiesel station within five miles of the Project site.

Mitigation Monitoring ENERGY-1: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the Project proponent/construction contractor.

Mitigation Measure AQ-2: Equipment Emissions (See Air Quality section for details)

Proper implementation of the preceding is expected to reduce energy consumption during construction. Impacts would be less than significant with mitigation incorporated.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiencies.
Less than Significant.
Project operations will consume energy. The 2019 California Energy Code (Building Energy Efficiency Standards) became effective on January 1, 2020. The project is required to and will comply with all state mandated energy efficiency standards. The District does not have alternative energy efficiency standards. Therefore, the project is not anticipated to conflict with state or local plans for energy efficiency.

Mitigation Measure: None required.

Mitigation Monitoring: Not applicable.

2.7 GEOLOGY AND SOILS

VI. GEOLOGY AND SOILS. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☒	☐	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature	☐	☐	☐	☒

2.7.1 Background and Setting

Pursuant to the USDA/NRCS Soil/Vegetation Survey for Tuolumne County, on-site soils are classified as identified in Section 2.2.1. Erosion potential for the on-site soils is illustrated in **Figure 9**. Slopes are illustrated in **Figure 10**. Anticipated soil suitability for shallow excavations is illustrated in **Figure 11**.

Figure 9: Erosion Potential

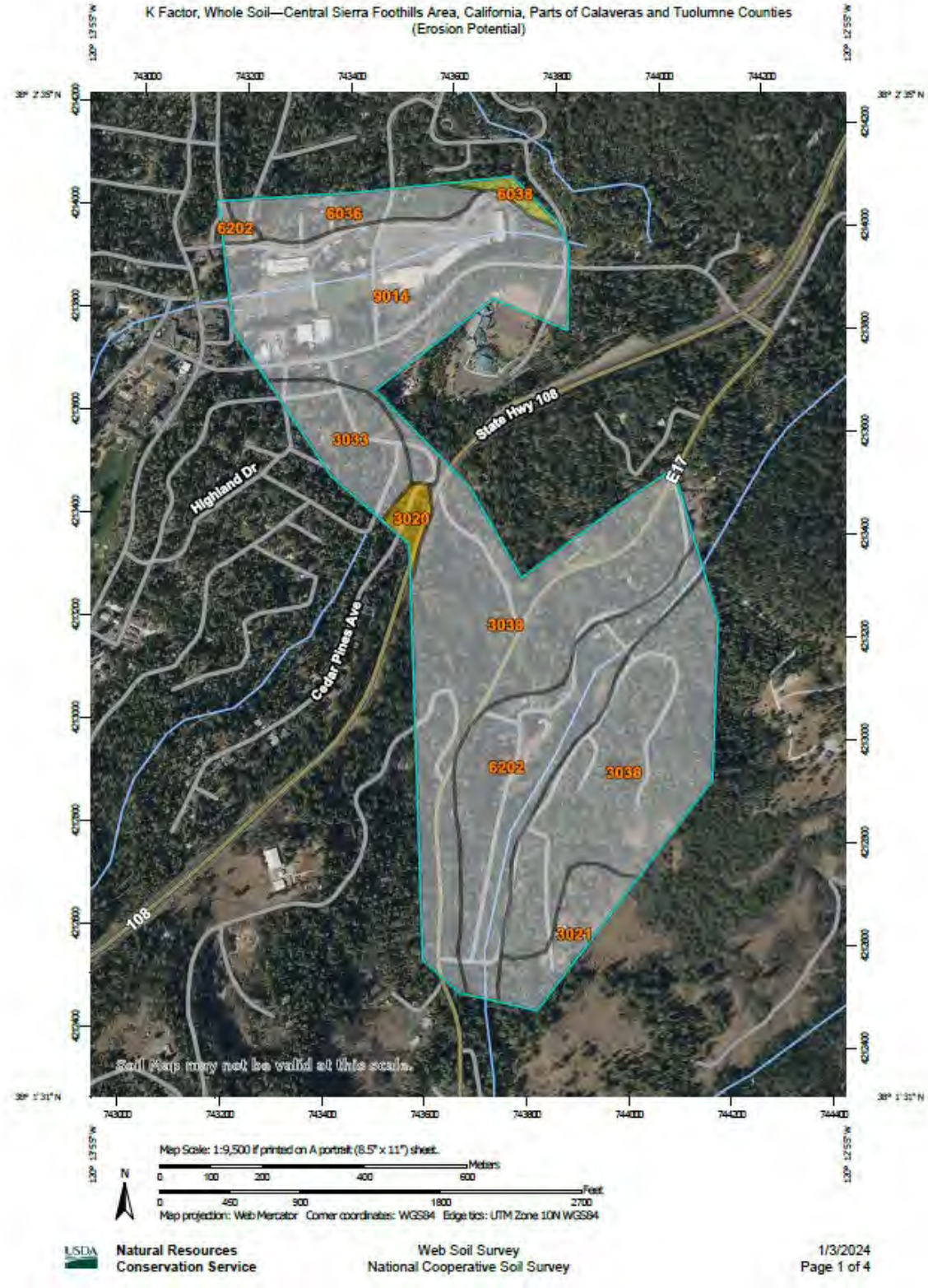


Figure 10: General Slopes

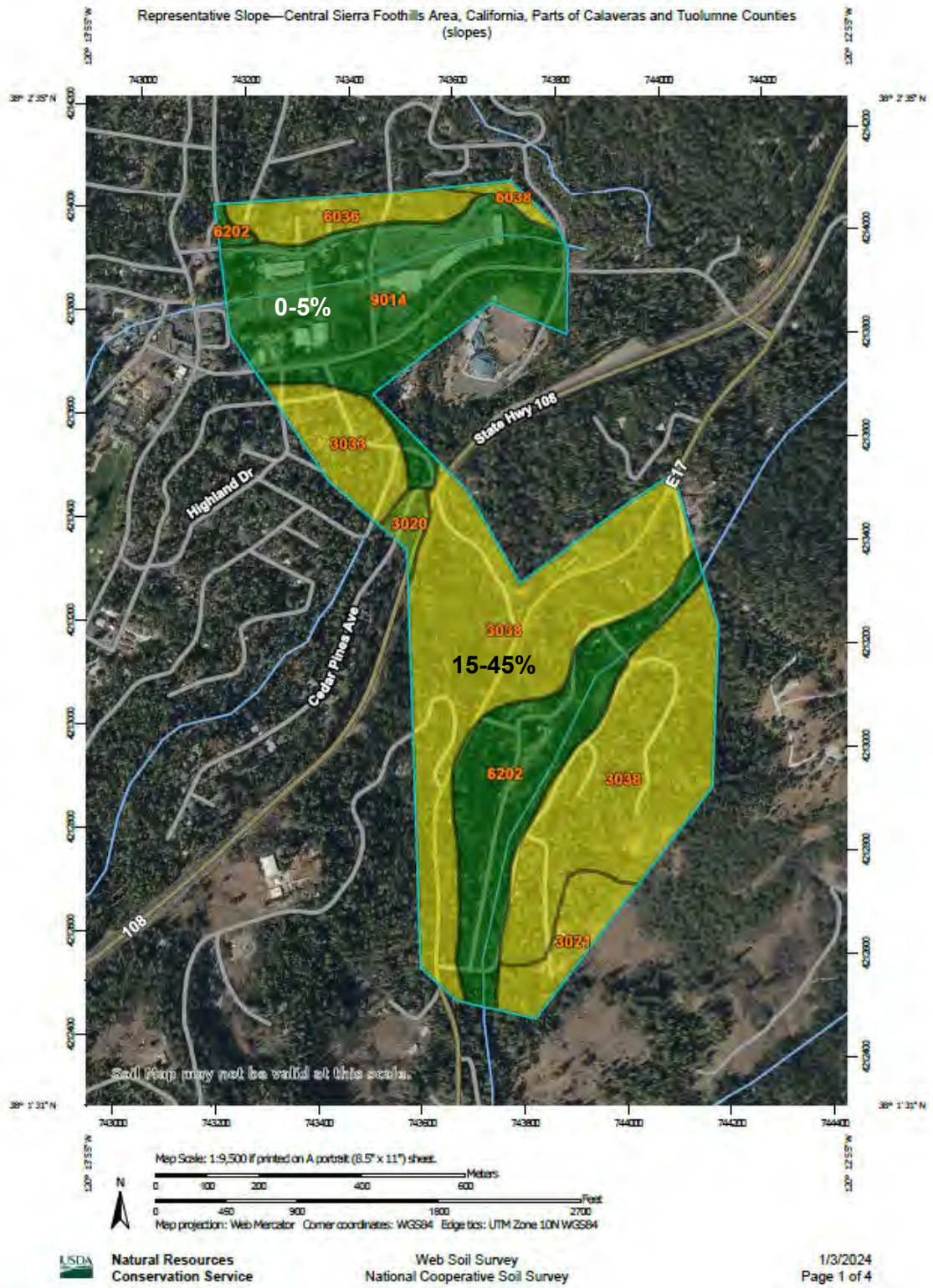
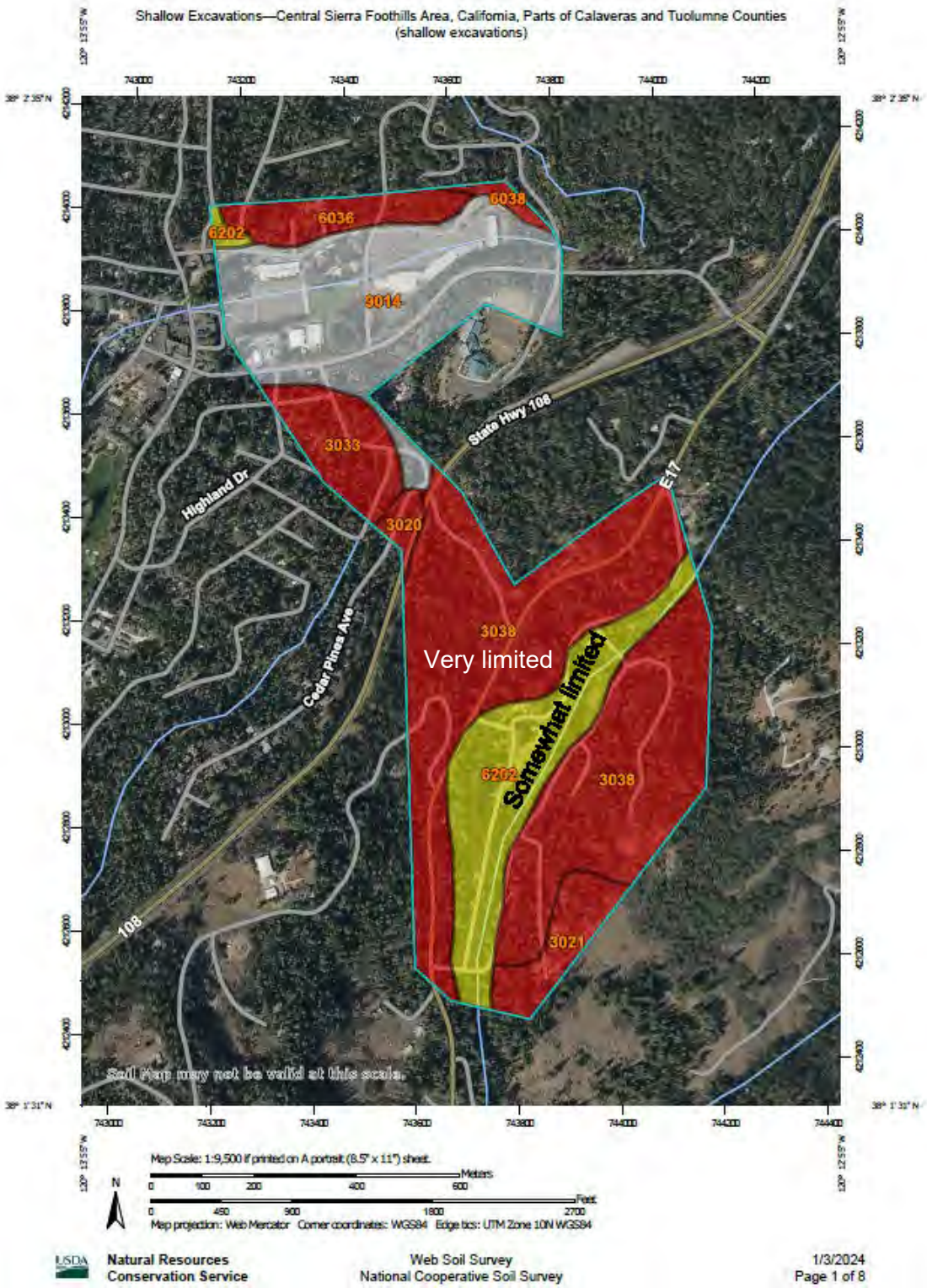


Figure 11: Soil Suitability for Shallow Excavations



a) Expose people or structures to 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?

No impact
Tuolumne County is not identified as being at risk of rupture of a known earthquake fault pursuant to Special Publication 42 (August 2007 Revision). Therefore, impacts related to fault rupture, strong seismic ground shaking, seismic related ground shaking, or seismic related ground failure are not anticipated at the Project site.

iv) Landslides?

Less Than Significant with Mitigation Incorporated.
The Tuolumne County Geotechnical Interpretive Diagrams do not identify the area as being in a location with unstable slopes; however, the USDA/NRCS and USGS topo maps identify slopes in excess of 20% in the area (**Figure 10**). In addition, during periods of heavy rains, the ditch system in the area can over-top and create flooding that carries soils downhill in the upper reaches of the Sherwood Forest subdivision. Because of the possibility of unstable soils coupled with planned excavations; the potential for weakening soil stability exists – a potentially significant adverse impact. The following mitigation measure is proposed to address this potential impact:

Avoidance and Minimization Measure GEO-1: Geotechnical Studies
Prior to commencing construction, the project proponent shall conduct testing for expansive soils, soil suitability, and slope stability in accordance with District standards to ensure that soils and slopes do not damage pipelines after installation or affect slope stability.

Mitigation Monitoring GEO-1:
The studies shall be completed prior to commencing construction and finalizing construction plans. The District is responsible for this measure.

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

Less Than Significant with Mitigation Incorporated.

As illustrated in **Figure 9**, soil erosion potential is low within the construction boundaries. However, even temporary construction activities associated with the Project may disturb soils and result in loss of topsoil and soil erosion that could impact wetlands and waterways within the project boundaries, a potentially significant adverse impact. The following mitigation measures require preparation and implementation of an erosion control plan and compliance with state and federal water quality protection measures and is proposed to minimize this potential impact and were previously identified in the Biological Resources portion of this

analysis:

Avoidance and Minimization Measure BIO-5 (GEO-2): Erosion Control

Avoidance and Minimization Measure BIO-6 (GEO-3): NPDES/SWPPP

Proper implementation of these measure will reduce potential impacts to water quality to a level of less-than-significant.

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

d) Would the Project 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?

Less Than Significant with Mitigation Incorporated.
Pursuant to the USDA/NRCS and USGS topo maps, the project area includes some segments with slopes in excess of 20% (**Figure 10**). Therefore, impacts associated with slope stability could occur.

No foundations are proposed to be built in conjunction with the Project; however, underground structures (i.e., pipelines) will be installed. Water pipelines have existed in this area for many decades without catastrophic failure. However, USDA/NRCS soils analysis indicates the soil suitability of soils for shallow excavations of 5-6 feet in depth have very limited suitability (**Figure 11**).

While failure of underground water pipelines is unlikely to create a direct risk to life, some property damage to roads or adjacent properties could occur or result in periods where fire flow would be unavailable, a potentially significant adverse impact.

Therefore, the following mitigation measure, detailed in preceding paragraphs, is required:

Mitigation Measure GEO-1 Geotechnical Studies

Proper implementation of the preceding is expected to reduce the potential impact to a level of less-than-significant.

e) Would the Project 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?

No Impact. The Project involves improvements to an existing water distribution system. Therefore, no septic tanks are proposed and no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. There are no unique geological features known on the site. Paleontological resources are unknown in this area and there is no surface evidence that such resources could exist. Therefore, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.8 GREENHOUSE GAS EMISSIONS

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

2.8.1 Background and Setting

The following study was conducted for the project and previously incorporated by reference:

Shijo, Wayne. November 2023. *Twain Harte Community Services District Sherwood Distribution System Improvements Project Air Quality and Greenhouse Gas Analysis*

The following summarizes the report's findings.

Project implementation for the Project includes four construction phases as follows:

Phase 1: Mobilization
- Component 1 - Equipment Transport
- Component 2 - Supplies Delivery
- Component 3 - Staging Area

Phase 2: Pipeline Installation
- Component 1 - Site Layout
- Component 2 – Potholing
- Component 3 - Pipeline Installation
- Component 4 - Disinfection and Pressure Testing

Phase 3: Restoration
- Component 1 - Final Grading
- Component 2 - Paving

Phase 4: Demobilization
- Component 1 - Staging Area Demobilization
- Component 2 - Equipment Transport
- Component 3 - Supplies Cleanup and Demobilization

The project will not result in a change in system capacity and will not result in a change in long-term operational air pollutant emissions. Therefore, this analysis focuses on short-term construction-related air quality impacts.

Pressure Zones 4 and 6 are estimated to include approximately 270 residents in residential land uses and approximately 25 employees in non-residential land uses. (Rocha pers. comm. and

Augustine pers. comm.)

Thresholds

The GHG significance threshold applied herein is based on the *Tuolumne County Climate Action Plan* (County of Tuolumne 2022). The Climate Action Plan presents a series of significance thresholds, as shown in the following table.

Table 7: Greenhouse Gas Significance Thresholds

Greenhouse Gas Emissions Efficiency Thresholds	Project's Anticipated Operational Year		
	2030	2040	2050
Efficiency threshold for new development ($MTCO_2e$/SP)	3.84	2.43	1.20
Efficiency threshold for new development ($MTCO_2e$/capita)	4.72	2.98	1.48
Efficiency threshold for new development ($MTCO_2e$/employee)	20.70	13.09	6.48

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent;
SP = service population.

Source: County of Tuolumne 2022.

The Climate Action Plan includes significance thresholds expressed in:

- metric tons of carbon dioxide equivalent (MTCO2e) per capita, which is primarily applied to residential land uses;

- MTCO2e per employee, which is primarily applied to non-residential employment land uses; and

- MTCO2e per service population, which is primarily applied to land uses that include both residential and non-residential land uses.

Service population is calculated as the sum of residents and employees. Pressure Zones 4 and 6 include both residential land uses and non-residential land uses. Therefore, the Climate Action Plan significance thresholds expressed as MTCO2e per service population are applied in this analysis.

The Climate Action Plan presents different thresholds for projects anticipated to be operational in the years 2030, 2040, and 2050.

Construction of the Twain Harte CSD project is expected to begin in the spring of 2025 and be completed in late summer or early fall of 2025 (Rocha pers. comm.).

This air quality analysis assumes:

- Phase 1 Estimated Start: 4/1/2025 Estimated End: 4/26/2025
- Phase 2 Estimated Start: 4/26/2025 Estimated End: 7/25/2025
- Phase 3 Estimated Start: 7/25/2025 Estimated End: 8/9/2025
- Phase 4 Estimated Start: 8/9/2025 Estimated End: 8/29/2025

As shown, the Project is estimated to be completed in the year 2025. Therefore, the Climate Action Plan significance threshold for the year 2030 is applied.

As shown in the preceding table, the Climate Action Plan significance threshold expressed as MTCO2e per service population for the year 2030 is 4.72 MTCO2e per service population. That threshold is applied in this analysis.

2.8.2 Analysis

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant. The GHG analysis for this project found that, during the construction period, construction activity would result in 0.58 MT CO2e per service population per year (/SP/yr.) as shown in **Table 8**.

This amount is less than the 3.84 MT CO2e/SP/yr. significance threshold for GHG emissions (**Table 7**).

Therefore, this impact is considered less than significant, and no mitigation measures are required.

Table 8: Project Greenhouse Gas Emissions

Sherwood Distribution System Project Phase	Greenhouse Gas (GHG) Emissions in Metric Tons of Carbon Dioxide Equivalent ($MTCO_2e$)
Phase 1: Mobilization	22.71
Phase 2: Pipeline Installation	99.90
Phase 3: Restoration	21.62
Phase 4: Demobilization	28.25
Total of All Phases	172.48
Project Area Residents	270
Project Area Employment	25
Project Area Service Population	295
GHG Emissions in $MTCO_2e$ per Service Population	0.58
Significance Threshold in $MTCO_2e$ per Service Population	3.84
Significant Impact?	No

As noted in the Project Description, the Project will not result in a long-term change in system capacity. As a result, the project will not result in a change in long-term operational GHG emission.

Therefore, impacts related to greenhouse gas emissions are determined to be less than significant for the Project.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. As described in paragraph a, the Project is consistent with the County's Climate Action Plan.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.9 HAZARDS AND HAZARDOUS MATERIALS

VIII. 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 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?	☐	☐	☐	☒

2.9.1 Background and Setting

Hazardous materials include flammable, reactive, corrosive, or toxic substances that, because of these properties, pose potential harm to the public or environment.

Materials associated with the construction and rehabilitation of the wastewater collection system are required to be handled, stored, transported, and disposed of according to a framework of federal, state and local regulations. Regulatory bodies include, but are not limited to, the California Environmental Protection Agency, Department of Toxic Substances Control, Tuolumne County Environmental Health, U.S. and California Department of Transportation and the California Division of Occupational Safety and Health.

A review of the Department of Toxic Substances Control (DTSC) database, EnviroStor, which lists hazardous materials sites complied pursuant to California Government Code Section 65962.5; GeoTracker, which provides information on Leaking Underground Storage Tanks

(LUST) and other cleanup sites; and EPA's Toxic Release Inventory (EPCRA TRI) shows no active contamination or hazardous materials sites directly associated with the Project site or area. The following closed sites were identified within one mile of the project site.

Table 9: Hazardous Materials Cases/Sites within or Near the Project Boundaries

Source/ID	Contaminant	Status
Twain Harte Elementary School	Gasoline, 1996	Closed
Twain Harte Chevron	Gasoline, 1989	Closed
Twain Harte Shell	Gasoline, 1998	Closed
Trotter's welding	Gasoline, 1997	Closed
Sierra Pacific Industries, Sonora Division	---	Toxic release (air), closed

2.9.2 Analysis

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?

No Impact. A portion of the existing system may include asbestos pipe. The Project does not propose to disturb existing asbestos pipe. When encountered, the pipe shall be abandoned in place and new piping of sufficient size shall be installed in an alternate location as identified in the Project Design maps.

No transport, use, or disposal of hazardous materials is proposed in association with Project construction. Therefore, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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?

No Impact.
Table 9 identifies former hazardous material sites that have been remediated and cases closed. Therefore, this existing hazardous site is not expected to interfere with the proposed Project.

Because no specific contamination is identified at the Project site and no open or otherwise active sites occur within the proposed disturbance area, no significant adverse impacts are anticipated due to known hazardous material sites located on any list compiled pursuant to Section 65962.5 of the Government Code.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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 for people residing or working in the Project area?

No Impact. The Project is not located within the boundaries of an Airport Land Use Plan. Therefore, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact with Mitigation.
Once construction is completed, the Project will not interfere with the movement of people or materials along emergency access or evacuation routes; therefore, it will not physically interfere with an adopted emergency response or evacuation plan.

However, during construction, road sections may be temporarily closed or detours put in place to avoid construction areas. Emergency responders may be delayed in reaching various areas in the community due to blocked roadways, a potentially significant adverse impact. The following measure is proposed to minimize that impact.

Avoidance and Minimization Measure HAZ-1 (Traffic Access Management Plan)
Prior to commencing work within public roadways, the Contractor will prepare (to the District's and Tuolumne County's satisfaction), and throughout project construction will implement, a traffic access management plan to maintain emergency ingress, egress, and daily traffic flows throughout the Project boundaries. The access management plan should address public notification of upcoming construction, anticipated road closures, and detours (e.g., mailers in invoices, publication in local newspaper, website notices, postings along streets to be closed, electronic message boards). The District will coordinate road closures with the Twain Harte Fire Department, Twain Harte Elementary School, residences and local businesses to ensure that emergency ingress and egress is addressed prior to and during street closures.

Mitigation Monitoring HAZ-1: The traffic access management plan will be prepared prior to initiating project construction and implemented throughout project construction. The measure is the responsibility of the construction contractor in consultation with the identified agencies.

Proper implementation of the preceding measure will reduce the potential impact to emergency access to a level of less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The Project will not introduce residential uses into the urban/wildland interface, but will improve fire flow through the water distribution system increasing fire protection capabilities—a potential beneficial impact. No significant structures will be built in conjunction with the Project. Therefore, due to the size, nature and location of the Project, impacts associated with wildland fires are not anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.10 HYDROLOGY AND WATER QUALITY

IX. 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?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner that 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 that 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?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒

2.10.2 Background and Setting

2.10.3 Analysis

a) Violate any water quality standards or waste discharge requirements?

Less than Significant with Mitigation Incorporated. No waste discharge will occur, therefore, no impacts associated with waste discharge are anticipated. The introduction of machinery and construction materials to the site has the potential to disturb soils and increase disturbed-soil runoff from site construction into nearby water resources that could indirectly impact water quality in the on-site ponds, ditch and creek adjacent to the construction areas—a potentially significant adverse impact. To minimize and avoid these impacts, the following measures are included:

Avoidance and Minimization Measure BIO-3: ESA Fencing

Avoidance and Minimization Measure BIO-4: Staging and Spill Prevention

Avoidance and Minimization Measure BIO-5: Erosion Control

Avoidance and Minimization Measure BIO-6: NPDES/SWPPP

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Proper implementation of the preceding is expected to reduce the potential impact to a level of less than significant.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?

No Impact. The proposed Project involves improvements to an existing water distribution system to improve fire flow. No use of new groundwater sources will be required; but rather will involve improved use of existing water supplies. Therefore, based on the nature of the proposed Project, no impact will occur.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

Less than Significant with Mitigation Incorporated.
The introduction of machinery and construction materials to the site has the potential to disturb soils and increase disturbed-soil runoff from site construction into nearby water

resources that could result in erosion or siltation that indirectly impacts water quality in the on-site ponds, ditch and creek adjacent to the construction areas—a potentially significant adverse impact. To minimize and avoid these impacts, the following measures are included:

(HYDRO-1) Avoidance and Minimization Measure BIO-3: ESA Fencing

(HYDRO-2) Avoidance and Minimization Measure BIO-4: Staging and Spill Prevention

(HYDRO-3) Avoidance and Minimization Measure BIO-5: Erosion Control

(HYDRO-4) Avoidance and Minimization Measure BIO-6: NPDES/SWPPP

(HYDRO-5) Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Proper implementation of the preceding is expected to reduce the potential impact to a level of less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner that 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

No Impact.
No new impervious surfacing is proposed. Pipelines will be located in existing road ROWs without increasing paved surfacing. Therefore, runoff will not be increased. No alterations to drainages are proposed, therefore, no impediments or redirection of flood flows is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact
Pipe replacement in existing ROWs will not introduce pollutants. Therefore, the risk of release due to project inundation is not anticipated.

It is further noted that, pursuant to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) Community Panel # 06109C0900C (effective date April 16, 2009), identifies that the entire Project footprint is within a Flood Zone X, an area determined to be outside the 0.2% annual chance (or 500-year) floodplain (See **Figures 12** and **13**). Therefore, the proposed Project will occur within a 100-year flood hazard area and no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact.
Based on the size, nature and location of the project, replacing waterlines to improve fire flow, the project will not conflict with a water quality control plan. Because no groundwater is required for the project, it will not conflict with any sustainable groundwater management plan.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

f) Otherwise substantially degrade water quality?

Less Than Significant with Mitigation Incorporated.
Temporary construction activities associated with the Project may disturb soils and result in loss of topsoil and soil erosion. Runoff could carry eroded soils into waterways downstream of work areas thereby degrading water quality, a potentially significant adverse impact. The following mitigation measures (detailed in the Biological Resources Section) are proposed.

(HYDRO-1) Avoidance and Minimization Measure BIO-3: ESA Fencing

(HYDRO-2) Avoidance and Minimization Measure BIO-4: Staging and Spill Prevention

(HYDRO-3) Avoidance and Minimization Measure BIO-5: Erosion Control

(HYDRO-4) Avoidance and Minimization Measure BIO-6: NPDES/SWPPP

(HYDRO-5) Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Proper implementation of the preceding is expected to reduce the potential impact to a level of less than significant.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. Pursuant to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) Community Panel # 06109C0900C (effective date April 16, 2009), identifies that the entire Project footprint is within a Flood Zone X, an area determined to be outside the 0.2% annual chance (or 500-year) floodplain (See **Figures 12** and **13**).

Therefore, the proposed Project will occur within a 100-year flood hazard area and no impact is anticipated.

No housing is proposed in conjunction with the proposed Project, therefore no impacts associated with placing housing in a flood hazard area are anticipated. No flood zones exist; therefore, no structures will be placed in a flood hazard area that could impede or redirect flood flows. Based on the nature of the project, people and structures will not be exposed to significant loss, injury or death due to flooding, including flooding from levee or dam failure, because the project is not introducing people or structures to the area, but is improving existing infrastructure to improve fire flow. Therefore, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

Figure 12: FEMA FIRM South of SR 108

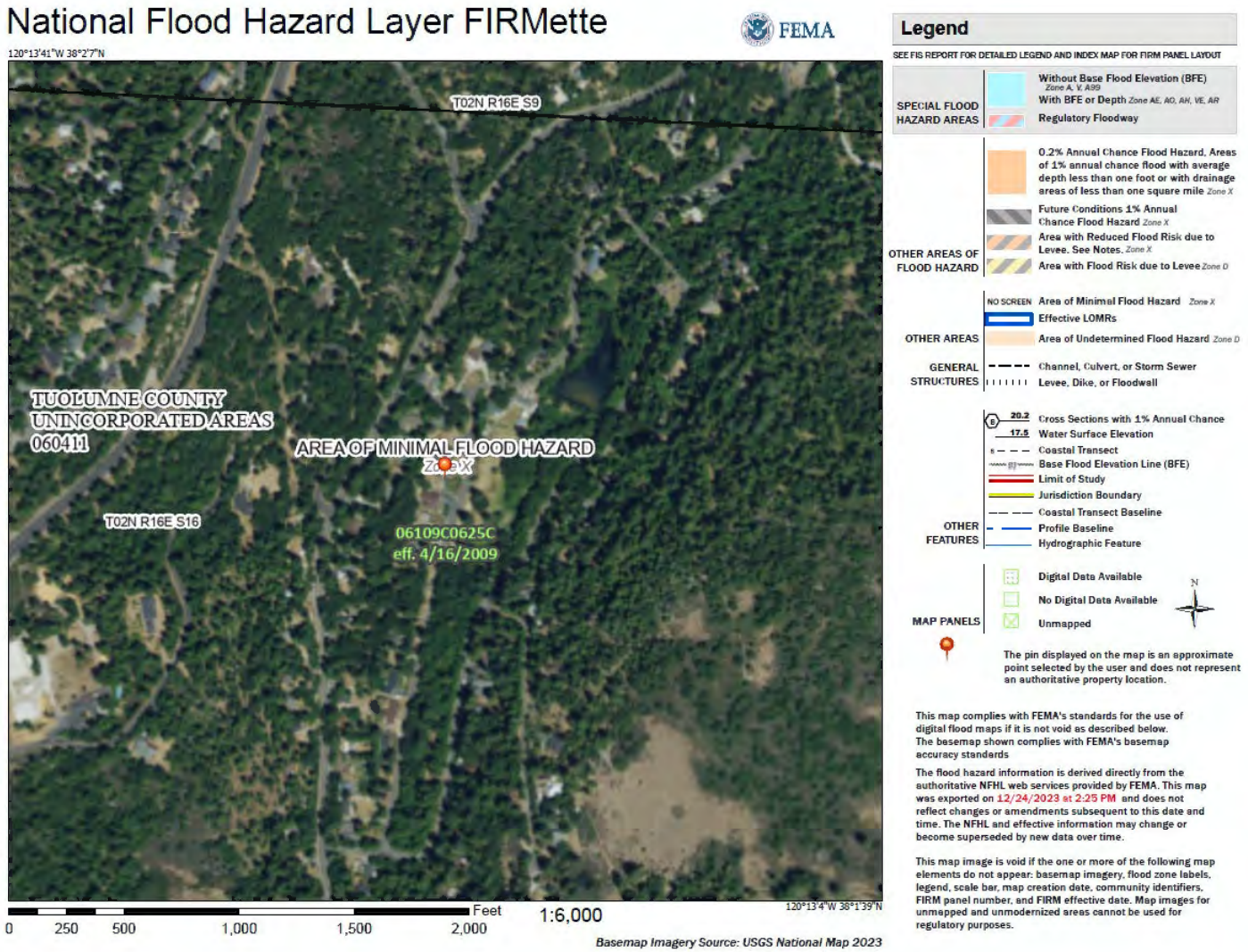
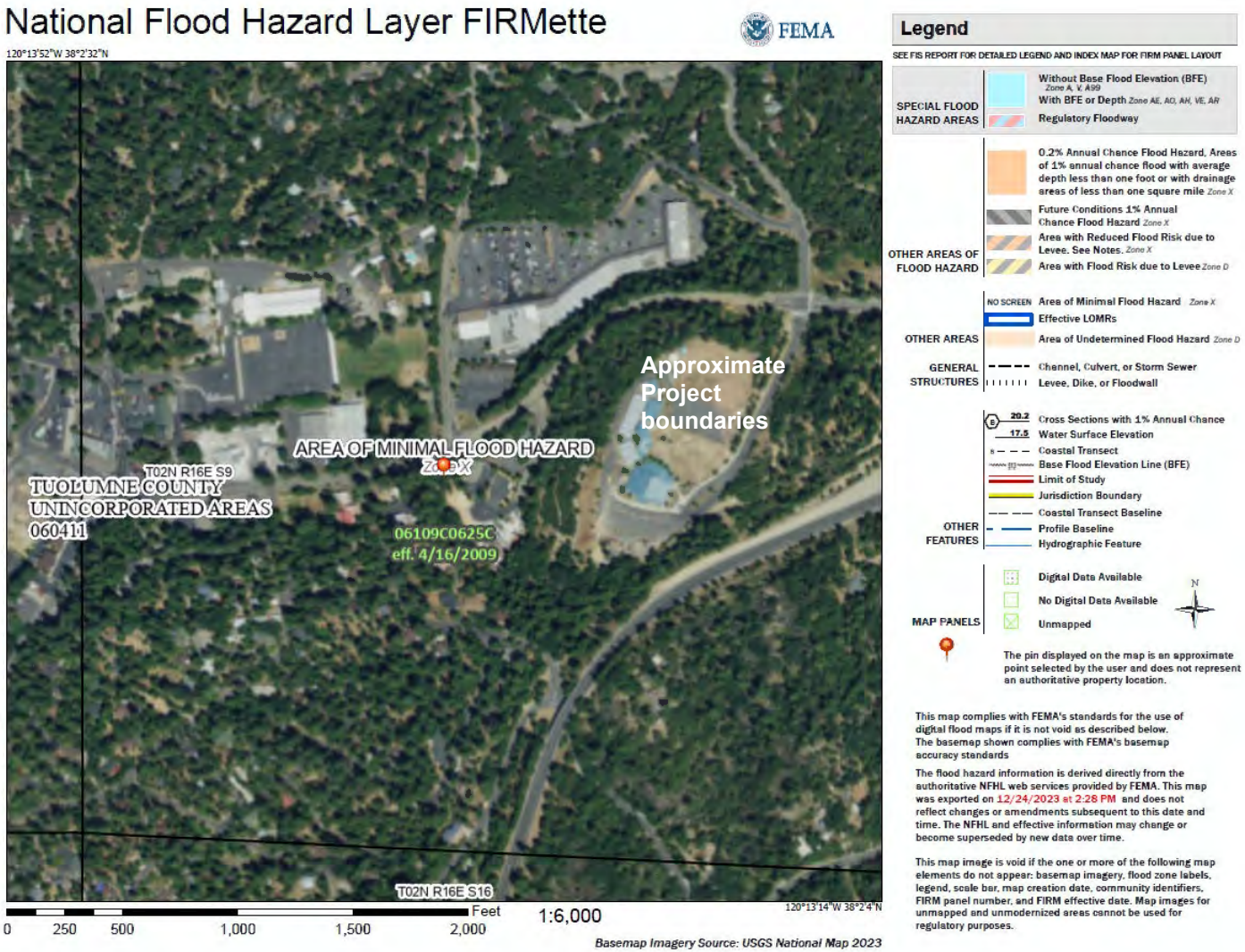


Figure 13: FEMA FIRM North of SR 108



2.11 LAND USE AND PLANNING

X. 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?	☐	☐	☐	☒

2.11.1 Background and Setting

Existing land uses within and adjacent to the Project site are residential, commercial, and public as illustrated in **Figure 14**. The Tuolumne County General Plan Land Use designations for parcels within the project boundaries are included in **Figure 14**.

Twain Harte does not have a community plan, but does have design guidelines.

2.11.2 Analysis

a) Physically divide an established community?

No Impact. The Project includes improvements to the existing water distribution system located primarily within existing road rights-of-way within and around Twain Harte and the Sherwood Forest subdivision. The system is an existing underground system. The two project areas are already physically divided by SR 108. No new structures associated with the proposed project will further divide the communities. Therefore, no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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?

No Impact. Twain Harte does not have a community Plan, but does have design guidelines. Due to the nature and location of the project (i.e., replacing underground piping) no design features will require review.

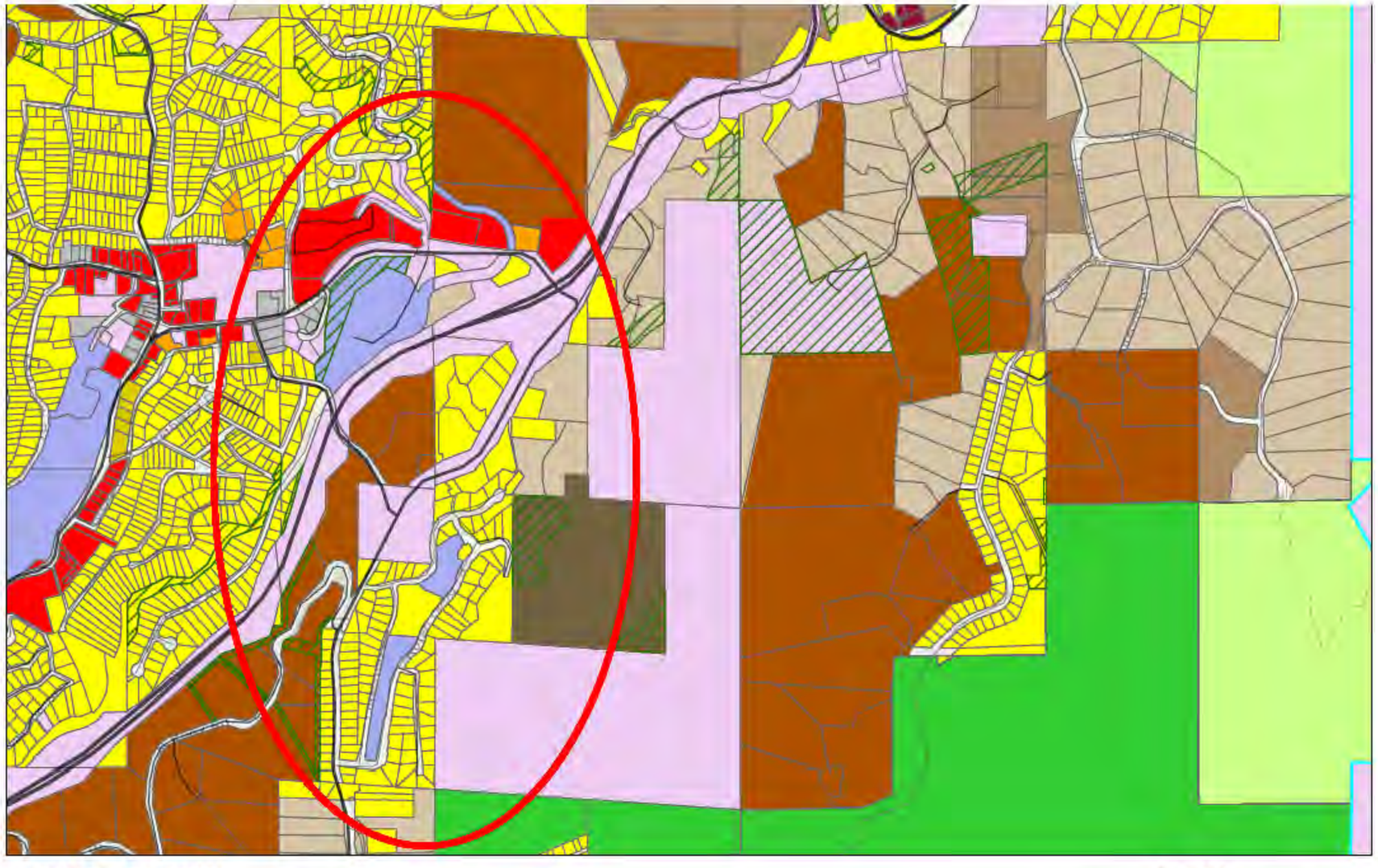
All lands included in the proposed water distribution system improvements project within road rights-of-way are assumed to be zoned Public (P) unless otherwise specified. Public zoning allows for a water distribution system. Existing homes will be reconnected to the system. Homes in the Sherwood Forest Subdivision carry a low-density residential general plan land use designation and are zoned Single-Family Residential (R-1), already are served by water, and changes to the existing system are a permitted use.

Pursuant to the 2018 General Plan Update Mitigation Monitoring and Reporting Plan, Table 2-1, the proposed project does not conflict with any of the general plan land use measures that were adopted for the purpose of avoiding or mitigating an environmental effect as described in the Agricultural Resources, Air Quality, Greenhouse Gas, Biological Resources, Noise, and

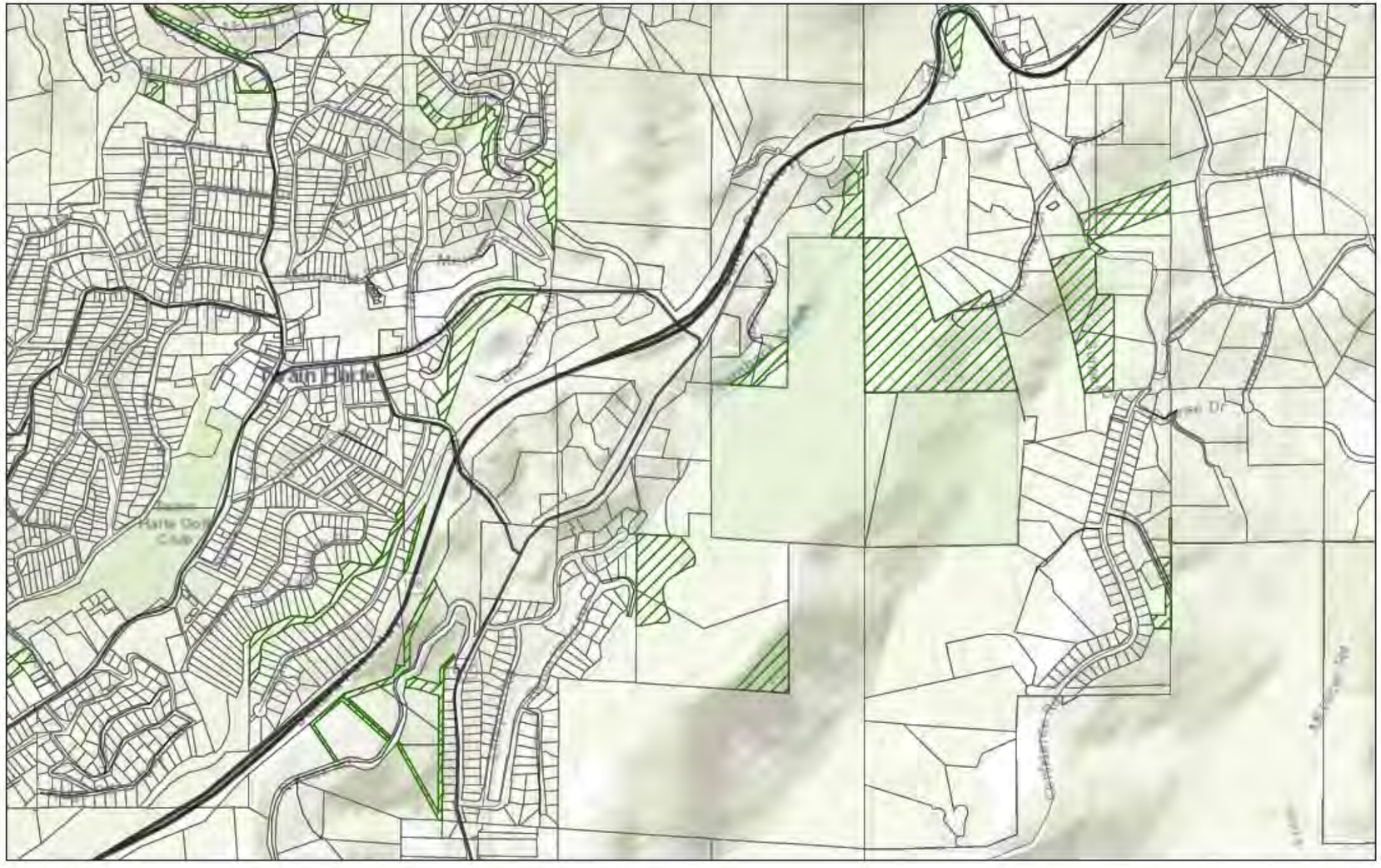
Transportation and Circulation sections of this report.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

Figure 14: Tuolumne County General Plan Land Use Map



Open Space Zoning



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Open Space Zoning

Roads

Hwy

Secondary Road

Local Traffic

Other Roads

Parcels_WithSiteAddress

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

Tuolumne County GIS

Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA | This dataset is provided courtesy of the County of Tuolumne, GIS Division. The County of Tuolumne cannot guarantee relatibility or suitability of this information.

2.12 MINERAL RESOURCES

XI. MINERAL RESOURCES. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

2.12.1 Background and Setting

The California Geological Survey (formerly Division of Mines and Geology) (CDMG) surveyed Tuolumne County for the presence of economically important mineral resources. Pursuant to the resulting report, Mineral Land Classification of a Portion of Tuolumne County, California, for Precious Metals, Carbonate Rock and Concrete-Grade Aggregate (CDMG Open-File Report 97-09, 1997). The area is classified as:

- MRZ-3a (pm-30) from the Twain Harte Area Standard Pluton yielding precious metals including lode gold and silver,
- Unclassified for concrete grade aggregate, and
- MRZ-4 (cr-28) for carbonate rock

2.12.2 Analysis

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?

No Impact. The majority of the proposed Project site is located in the MRZ-3a zone, an area of known mineral occurrence whose significance is undetermined. Inferred minerals are precious metals (lode gold and silver) based on past mining history. No carbonate or aggregate resources are identified for the area. Given the nature of the project, rehabilitation/installation of water lines and the existing urbanization in the area, there will be no loss of potential commercially important mineral resources. Therefore, no significant adverse impacts to mineral resources are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.13 NOISE

XII. 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) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) For a Project 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?	☐	☐	☐	☒

2.13.1 Background and Setting

The Project involves upgrades to a water distribution system's underground piping. Proposed improvements are not anticipated to increase the overall ambient noise levels, except temporarily during project construction.

Potential noise receptors include single-family residences located throughout the Project area and a school adjacent to the Twain Harte Shopping Center.

2.13.2 Analysis

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) Result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

Less Than Significant with Mitigation Incorporated. Long-term operation of the distribution system is not expected to increase noise above existing ambient levels. However, ground-borne vibrations and ground-borne noise will temporarily increase during construction – a temporary and potentially significant adverse impact. Therefore, the following mitigation measure, discussed in the Biological Resources section of the study and consistent with general plan policy will limit the hours of construction to daytime hours, is proposed.

(NOISE-1) Avoidance and Minimization Measure BIO-13: Hours of Construction.

Proper implementation of the preceding measure is expected to minimize the temporary increase in noise levels associated with Project construction to a level of less-than-significant.

c) For a Project 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?

No Impact. The Project is not located within an airport land use plan, in the vicinity of a private airstrip or within two miles of a public airport or public use airport. Therefore, no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.14 POPULATION AND HOUSING

XIII. POPULATION AND HOUSING. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (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?	☐	☐	☐	☒

2.14.1 Background and Setting

Twain Harte is an unincorporated community in Tuolumne County and Sherwood Forest is a subdivision near Twain Harte. "Twain Harte" is a census designated place with a 2020 population of approximately 2,502 persons.

2.14.2 Analysis

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)?

Proposed Project – Less than Significant. As previously stated, the purpose of the proposed Project is to improve water distribution system to improve fire flow. The proposed project will increase the line size as necessary to allow the THCSD water distribution system to achieve, rather than increase, its design capacity. No expansion of the system is proposed. The Project will improve an existing system for improved fire flow to existing development. Therefore, no growth inducing impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

Expanded Project Alternative – Less than Significant

The expanded project alternative would extend a public water line to a 1.5± acre parcel zoned Residential Estate, one acre minimum (RE-1) with a single-family residence crossing a 3.5± acre parcel zoned Residential Estate, two acre minimum (RE-2) carrying a general plan land use designation of Estate Residential (ER) and adjacent to another 3.5± acre parcel designated ER (**Figure 15**). Both ER parcels are vacant.

Tuolumne County development standards require that development to a density of one unit per less than two acres must be served by paved roads and public water. Development to a density of one unit per one-third acre or less must be served by public sewer.

Based on the preceding, the provision of public water to the identified parcels would not allow further division of the parcels to less than two acres (i.e., potentially growth inducing) unless public sewer is also provided to the parcel. This proposal would not result in the extension of public sewer to the identified parcels. Given the size of the parcels (1.5 and 3.5 acres) development to less than two acres in size cannot occur without the provision of public sewer. Therefore, the extension of public water to or adjacent to the parcels is not growth inducing.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

Figure 15: Potential Growth

Allows smaller lots without general plan amendment, but also would require public sewer

Could encourage general plan amendment, but would require extension of public sewer

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. No existing housing will be eliminated, removed, or otherwise require relocation in conjunction with the proposed Project. Therefore, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.15 PUBLIC SERVICES

XIV. PUBLIC SERVICES.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

2.15.1 Background and Setting

The Twain Harte community is served by the Twain Harte Fire Protection District, CalFire, the Tuolumne County Sheriff's Department, Twain Harte Elementary School, Summerville and Sonora High Schools, and the Twain Harte Community Services District. The entire project is located within the THCSD established LAFCo boundaries.

2.15.2 Analysis

No Impact. The proposed Project will not increase population and, therefore, will not increase demand for fire, police, schools, parks, or other public facilities. Therefore, no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.16 RECREATION

XV. RECREATION.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

2.16.1 Background and Setting

The Twain Harte Community Services District operates water and wastewater system, fire protection, and park and recreation facilities within the district.

2.16.2 Analysis

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

No Impact. The proposed Project will not increase population (See Section 2.13) and, therefore, will not increase demand for or use of recreational facilities. Based on the nature of the water distribution system improvements, the Project will not increase the demand for recreational facilities. Therefore, no significant adverse impact on recreational facilities is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.17 TRANSPORTATION

XVI. TRANSPORTATION/TRAFFIC. 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, roadways, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☒	☐	☐

2.17.1 Background and Setting

The Project does not propose any alterations to off-site roadways, trails, access routes or other transportation-related facilities.

2.17.2 Analysis

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?

No Impact.
The project will replace water lines within existing ROWs and will not alter any transportation facility or route. Because the Project neither directly involves nor will indirectly influence transportation; plans, ordinances and policies related to transportation are inapplicable to the Project. Based on the nature and location of the proposed Project, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?

No Impact.
The project will replace water lines within existing ROWs. Therefore, the project will not alter or influence vehicle miles traveled and is therefore consistent with CEQA Guidelines Section 15064.3(b).

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact.
The project will replace water lines within existing ROWs and will not alter any transportation facility or design. Therefore, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

d) Result in inadequate emergency access?

Less Than Significant Impact with Mitigation.
Once construction is completed, the Project will not interfere with emergency access or evacuation routes.

However, during construction, road sections may be temporarily closed or detours put in place to avoid construction areas. Emergency responders may be delayed in reaching various areas in the community due to blocked roadways, a potentially significant adverse impact. The following measure (detailed in the Hazards and Hazardous Materials Section of this report) is proposed to minimize that impact.

(TRANS-1) Mitigation Measure HAZ-1 (Traffic Access Management Plan)

Proper implementation of the mitigation measure will reduce the potential impact to emergency access to a level of less than significant.

2.18 TRIBAL CULTURAL RESOURCES

XVII. TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☒	☐	☐
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

2.18.1 Background and Setting

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California tribes as part of CEQA. Under AB 52, tribes requesting formal consultation from the Lead Agency are notified of the project prior to the preparing the CEQA document.

Consultations were conducted in conjunction within a nearly identical project footprint in 2012. The results of that consultation are as follows:

Native American consultation consisted of a Native American Heritage Commission (NAHC) sacred lands file search request, notification letters, coordination, and monitoring. The sacred lands file search by the NAHC on August 16, 2012, failed to indicate the presence of Native American cultural resources. On August 31, 2012, project notification letters describing the project were sent to seven individuals provided by the NAHC. Responses and contacts were as follows:

Tribe	Tribal Contact	Result
Tuolumne Band of Me-Wuk	Stanley Cox, Cultural Resource Director	No response
Tuolumne Band of Me-Wuk	Kevin Day, Chairperson	No response
Tuolumne Band of Me-Wuk	Reba Fuller	No response

Tribe	Tribal Contact	Result
California Valley Miwok Tribe	Briana Creekmore, Cultural Committee	No response
Chicken Ranch Rancheria of Me-Wuk	Lloyd Mathiesen, Chairperson	No response
Chicken Ranch Rancheria of Me-Wuk	Melissa Powell, Cultural Resources Coordinator	
Buena Vista Rancheria	Rhonda Morningstar Pope, Chairperson	No response

Due to staffing shortages at the NAHC, a revised list of contacts remains pending. Due to the lapse in time since the prior notification and delayed response from NAHC, re-notification of *local* tribal contacts was reinitiated as follows:

- Chicken Ranch Rancheria - Stephanie Suess, Monica Fox
  Notification sent 1/6/24, response not received to date.

- Tuolumne Band of Me-Wuk - Tuolumne MeWuk Tribal Council, Vicky Stone
  Notification sent 1/6/24, response not received to date.

In accordance with AB 52, these tribes will be provided copies of the draft IS/MND for any further comments. Comments will be incorporated into the final draft IS/MND.

The Expanded Alternative Project area was not surveyed or evaluated for this analysis. However, it is apparent that historical artifacts of unknown origin that have not been recorded are located within this area. Therefore, the following measure is included for the Expanded Alternative Project described in the Cultural Resources section of this study:

TCR-1 Expanded Alternative Project – CULT-A

2.18.2 Analysis

a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant with Mitigation Incorporated. Based on the cultural resources study conducted, no tribal cultural resources were identified within the boundaries of the Project site;

however, only surface surveys were conducted and subsurface resources could be uncovered during excavations occurring in conjunction with construction. This could result in damage to an unanticipated resource, a potentially significant adverse impact. The following mitigation measures, discussed in Section 2.5 (Cultural Resources) are proposed to address this potential impact:

(TCR-1) Mitigation Measure CULT-1: Inadvertent Discoveries

(TCR-2) Mitigation Measure CULT-2: Treatment of Human Remains and Sacred Objects

Proper implementation of the preceding measures is expected to minimize any potential impacts to a level of less-than-significant.

2.19 UTILITIES AND SERVICE SYSTEMS

XVIII. 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 stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards or 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?	☐	☐	☐	☒

2.19.1 Background and Setting

Public water and sewer services are provided to the affected areas by the Twain Harte Community Services District. As previously noted, the purpose of the Project is to replace water lines to improve fire flow within that system.

2.19.2 Analysis

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?

No Impact. The Proposed project is intended to improve efficiency of the existing water distribution system to improve fire flow. The project will assist the District in realizing the existing design capacity of the existing system and, therefore, does not expand the District's ability to serve new system demands. The Project involves upgrading an existing system through pipe replacement and therefore will not require construction of new water treatment facilities, wastewater treatment facilities, stormwater drainage, electrical power, natural gas or telecommunications facilities). Therefore, no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. The Proposed project is intended to improve efficiency of the existing water distribution system to improve fire flow by replacing existing water lines. No new groundwater supplies are required for the project. The project will assist the District in realizing the existing design capacity of the existing system. Therefore, no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

No Impact. Based on the nature of the proposed Project, improvements to an existing water distribution system, no increased demand on wastewater treatment will occur and no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

d) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?
e) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. Based on the nature of the proposed Project, improving the efficiency of a water distribution system, solid waste generation is not anticipated, therefore, no impact will occur.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

2.20 WILDFIRE

XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability or drainage changes?	☐	☐	☐	☒

2.20.1 Background and Setting

The Project involves replacing waterlines to improve fire flow. It will not alter roadways.

The No Project Alternative would result in potential impacts related to the ability of the District to protect structures during wildfires. Potential mitigation could include expanding vegetation management surrounding Sherwood Forest. However, a large expanse of land that would be affected by vegetation management is inhabited by listed plant and candidate animal species with a potential for significant adverse impacts to those species. The Project and Expanded Project Alternative represent mitigation that would be necessary for the No Project Alternative.

The Project and Expanded Project Alternatives are addressed as follows.

2.20.2 Analysis

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project involves replacing waterlines to improve fire flow. It will not alter roadways.

Mitigation Measure: None required.

Mitigation Monitoring: Not applicable

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?*

No impact. The Project involves replacing waterlines to improve fire flow. Therefore, it will help protect project occupants from wildfire.
Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

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?*

No impact. The Project involves replacing waterlines to improve fire flow and will not exacerbate fire risk, but rather reduce it.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

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?

No impact. The Project involves replacing waterlines to improve fire flow and will not exacerbate fire risk, but rather reduce it.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

2.21 MANDATORY FINDINGS OF SIGNIFICANCE

XIX. 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 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, 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?	☐	☒	☐	☐

2.21.1 Analysis

a) Have the potential to 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, 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?

Less Than Significant with Mitigation Incorporated. As detailed in this study, the proposed Project will not have a significant effect on the environment and will not result in any of the impacts requiring a mandatory finding of significance provided the mitigation measures identified herein are properly implemented and maintained as described in the Biological and Cultural Resources chapters of this study. The mitigation monitoring and reporting plan and its identified mitigation measures in **Appendix A** as applicable to Biological and Cultural Resources, if properly implemented and maintained, will reduce the identified potential impacts to biological and cultural resources to a level of less-than-significant.

b) 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)?

No Impact. There have been no projects of a similar type, size, or nature that have occurred in the same general area over time. The Project itself will not increase system capacity, but instead will allow the system to realize its existing design capacity. Therefore, no cumulatively significant impacts related to successive projects are anticipated.

c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant with Mitigation Incorporated. As described herein, the proposed Project will not result in any substantial adverse effects on human beings either directly or indirectly except for temporary noise increases during project construction. **Mitigation Measure BIO-13**, limiting the hours of construction, will reduce that potential impact associated with temporary noise increases to a level of less-than-significant.

2.22 ALTERNATIVES ANALYSIS

The following alternatives were analysed for the project in the preceding sections.

Alternative A: No Build Alternative. In addition to the Project, a No-Build Alternative is evaluated herein. Under the No-Build Alternative, no changes would be made to the existing Wastewater Collection System.

Alternative B: Expanded Project Alternative.
This alternative includes extending the proposed water line across parcels north of the Sherwood Forest subdivision as shown in **Figure 4**.

Alternative C: Proposed Project.

A comparison of the environmental issues associated with the alternatives is found in the following table.

Table 10: Comparison of Alternatives

Alternative	Beneficial Impacts	Adverse Impacts (Direct/Indirect) Potentially foreseeable	Sensitive Environmental Issues	Cumulative Impacts	Potential foreseeable Impacts	Mitigation Measures for Adverse Impacts
A. No Build	Avoids temporary Project impacts	Replaces short-term impacts with potential long-term impacts related to health and safety relative to fire safety.	Fire, Wildfire (Biological – if fuel management is pursued instead)	Fire, Wildfire	Fire, Wildfire (Biological – if fuel management if pursued instead)	The No Project Alternative would result in potential impacts related to the ability of the District to protect structures during wildfires. Potential mitigation could include expanding wildland vegetation management efforts on federal lands adjacent to the Sherwood Forest Subdivision. However, property that would be affected by vegetation management is inhabited by listed plant and candidate animal species with a potential for significant adverse impacts to those species. The Project and Expanded Project Alternative represent mitigation that would be necessary to mitigate impacts created by the No Project/No Build Alternative that, in combination with focused vegetation management could reduce wildland fire risks.
B. Expanded Project Alternative (Pipeline extension through APNs to the	Improves overall system efficiency to assist in structural (and wildland) fire	Same as for the Proposed project with additional biological impacts (known) and cultural resource impacts (potential) – See Table B	Same as for the proposed project with additional biological impacts (known) and Cultural resource impacts (potential) – See Table B	Potential for biological impacts to certain species (See Table B) and unknown for	Potential for biological impacts to certain species (See Table B) and unknown for Cultural	**See Tables A and B**

Alternative	Beneficial Impacts	Adverse Impacts (Direct/Indirect) Potentially foreseeable	Sensitive Environmental Issues	Cumulative Impacts	Potential foreseeable Impacts	Mitigation Measures for Adverse Impacts
north of the project)	protection.			Cultural Resources (Table B)	Resources (Table B)	
C. Proposed Project	Improves overall system efficiency to assist in structural (and wildland) fire protection	See Table A and this study	See Table A and this study	None	See Table A and this Study	See Table A

As illustrated in the preceding table, the No Project Alternative (Alternative A) has a high potential to adversely impact health and safety with the inadequate provision of water meeting necessary fire flow. Without improving fire flow, the only potential defense is significant fuel load reduction. While this is feasible in some locations, federal lands adjacent to the subdivision are home to listed plant and animal species and significant fuel load reduction could result in a significant adverse impact to these species. A combination of focused fuel load reduction and the Proposed Project or Expanded Project Alternative could be substituted for the No Build Alternative which is rejected as environmentally unacceptable.

The Expanded Project Alternative has the potential to result in impacts to the foothill yellow-legged frog, Tomkins's sedge, Mountain Lady's slipper, Mariposa clarkia, Turnback Creek and cultural resources that are greater than those for the proposed project. Based on site investigations by the Project Biologist / land use planner; the obvious presence of historical artifacts in the expansion area, near proximity to the creek, and verified colonies of Mariposa clarkia in the expansion area resulted in a recommendation to the District that this area not be included in the proposed project boundaries due to the potential impacts to cultural and biological resources (See Table B).

Potential Impacts of the Proposed Project are analyzed herein and summarized in Table A. All potential impacts can be mitigated to a level of less than significant. Based on the information available, this alternative is the recommended project alternative.

3.0 List of Preparers

Amy Augustine, AICP – Augustine Planning Associates, Inc.

4.0 Sources & References

All of the following are available for review at websites referenced except for the following:

The Tuolumne County Geotechnical Interpretive Maps are available at the Tuolumne County Community Resources Agency, 48 West Yaney Street, 4th Floor, Sonora, CA 95370, Monday – Thursday.

Local

Twain Harte Community Services District Guidelines for the Implementation of the California Environmental Quality Act. https://www.twainhartecsd.com/

County

Tuolumne County Airport Land Use Compatibility Plan, 2003 Adopted by Tuolumne County Airport Land Use Commission January 22, 2003 Prepared by Shutt Moen Associates Santa Rosa, California https://www.tuolumnecounty.ca.gov/135/Airport-Land-Use-Commission

Tuolumne County General Plan, 2018. https://www.tuolumnecounty.ca.gov/889/General-Plan-Update

Tuolumne County Geotechnical Interpretive Maps. Geotechnical Research & Development. January 1996. *Updated Geotechnical Safety Issues Prepared for the Tuolumne County General Plan Update.*

Tuolumne County Ordinance Code, Zoning - Title 17
https://www.tuolumnecounty.ca.gov/165/Tuolumne-County-Ordinance-Code

Tuolumne County Ordinance Code Title 18 – Airport Influence Areas, Chapter 18.24
https://www.tuolumnecounty.ca.gov/165/Tuolumne-County-Ordinance-Code

State

California Air Pollution Control Officers' Association (CAPCOA). 2015. *California's Progress Toward Clean Air*. Available at website url: http://www.capcoa.org/wp-

content/uploads/2015/04/2015%20PTCA%20CAPCOA%20Report%20-%20FINAL.pdf.

California Department of Transportation, *The California Scenic Highway System List of Eligible and Officially Designated Routes*; 2017 http://www.dot.ca.gov/design/lap/livability/scenic-highways/

California Department of Fish and Wildlife. California Natural Diversity Database (CNDDB). 2023. RareFind 5 [Internet]. https://map.dfg.ca.gov/rarefind/view/RareFind.aspx (CONFIDENTIAL)

California Department of Conservation Division of Mines and Geology. August 2000. *A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos*. https://www.conservation.ca.gov/cgs/minerals/mineral-hazards/asbestos

California Environmental Quality Act, 1971 and as amended. https://opr.ca.gov/ceqa/

Federal

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. https://www.fema.gov/flood-maps

United States Fish and Wildlife Service. Species list, IPAC. 2023. (CONFIDENTIAL)

Appendix A. Mitigation Monitoring and Reporting Program (Proposed Project)

Mitigation Monitoring and Reporting Plan							
Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
Aesthetics							
AES-1	**Mitigation Measure AES-1: Large Native Oak Tree Protection** To the maximum extent feasible and practicable, throughout project construction activities occurring within one and on-half times the driplines of native oaks (e.g., black oaks, *Quercus kelloggii*) measuring 24" or greater in diameter at breast height: • Limit ground-disturbing activities to outside the dripline of native oaks and preferably outside one and one-half times the dripline; • No storage equipment, supplies, vehicles, debris, construction wastewater, paint, stucco, concrete or any other clean-up waste, and temporary or permanent structures shall be placed within the driplines • Avoid cutting oak roots • Use boring or trenchless installation rather than open trenching within driplines where possible • Avoid equipment damage to limbs, trunks, and roots of oaks trees • Do not attach signs, ropes, cables or other items to trees **Mitigation Monitoring AES-1:** The required mitigation measure will be implemented throughout project construction activities occurring within the one and one-half times the driplines of native oaks (primarily black oaks) measuring 24" or greater in diameter at breast height. The measure is the responsibility of the construction contractor.		Throughout construction activities located within one and one-half times the dripline of native oaks (primarily black oaks) measuring 24" or greater diameter at breast height	Throughout Project construction	Construction contractor		
Air Quality							

Mitigation Monitoring and Reporting Plan							
Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
AQ-1	**Mitigation Measure AQ-1: Dust Control** The construction contractor shall be responsible for dust abatement during construction and development operations. A water truck or other watering device shall be on the construction site on all working days when natural precipitation does not provide adequate moisture for complete dust control. Said watering device shall be used to spray water on the site at the end of each day and at all other intervals, as need dictates, to control dust. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions using application of water. A water truck shall be present on site throughout construction activities. **Mitigation Monitoring AQ-1:** The required mitigation measure will be implemented throughout Project construction when inadequate moisture exists. The measure is the responsibility of the construction contractor.		Throughout Project construction	Throughout Project construction when inadequate moisture exists	Construction contractor		
AQ-2	**Mitigation Measure AQ-2: Equipment Emissions** Throughout Project construction: A. Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations (CCR) Title 17, Section 93114 (Compliance with Caltrans' Standard Specifications, Section 14-9). B. The extended idling of heavy-duty diesel-powered construction equipment within 500 feet of nearby sensitive receptors (i.e., residential dwellings) is prohibited during periods when the equipment is not in use. **Mitigation Monitoring AQ-2:** The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.	See condition.	Throughout Project construction	Throughout Project construction	Construction contractor		
Biological Resources							

Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
BIO-1	**Avoidance and Minimization Measure BIO-1: Project Biologist** The project proponent shall submit the name and credentials of the project's biologist(s) to CDFW for review and approval no less than 15 days prior to the onset of construction activities. **Mitigation Monitoring BIO-1** The Project Biologist shall be contracted to THCSD rather than the contractor. THCSD is responsible for contracting with a project biologist prior to allowing the construction contractor to commence site disturbances. THCSD is responsible, with the assistance of the Project Biologist, for submitting the Project Biologist's credentials to CDFW for review and approval no less than 15 days prior to commencing construction.		CDFW review and approval no less than 15 days prior to commencing construction.	Once	THCSD is responsible for contracting with the Project Biologist.		
BIO-2	**Avoidance and Minimization Measure BIO-2: Preconstruction FYLF Surveys** Preconstruction surveys should be conducted prior to site disturbance to re-confirm absence of FYLF within 24 hours of commencing site disturbances (including staging). The THCSD, or its representative, shall have a qualified biologist survey for FYLF within all potential habitats. If surveys are negative (i.e., no FYLF), measures BIO 3 through BIO -8 shall be implemented. If surveys are positive (FYLF are identified), BIO-2 through BIO-8 shall be implemented *and* a qualified biologist shall be present on site during all construction activities within 200 feet of Turnback Creek. The qualified biologist shall have the authority to stop work at any time as may be necessary to protect FYLFs or their habitat. **Mitigation Monitoring BIO-2:** The measure shall be implemented by a qualified biologist (See MM-1) within 24 hours of commencing site disturbances (including staging). If construction is delayed or occurs in phases, a re-survey must be completed prior to recommencing work after a shut-down period of more than three months. The construction contractor is responsible for ensuring that the Project Biologist is notified with ample time to complete the survey and consult with CDFW, if necessary. If on-site biological monitoring is required throughout project construction for any activity within 200 feet of Turnback Creek, a monitoring schedule shall be executed prior to commencing construction between the Project Biologist and the contractor.		Within 24 hours of commencing site disturbance	Once, unless construction is delayed or occurs in phases; then a re-survey is required. Re-survey is required if work shuts down for a period of more than three months. Ongoing – if presence is confirmed	Construction contractor; Project biologist		

Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
BIO-3	**Avoidance and Minimization Measure BIO-3: ESA Fencing** Prior to commencing staging, construction, ground-disturbing or other project activities, install Environmentally Sensitive Area (ESA) fencing in the locations shown in IS/MND **Figure 8 (and attached to this table):** to ensure protection of wetlands (creek, ponds, ditch), foothill yellow-legged frog habitat, and turtle habitat. Fencing shall remain in place until all project activities are completed. Any fencing falling down during construction shall be re-installed immediately. No parking shall occur adjacent to ESA fencing. No construction-related materials, equipment, trash or other related debris shall be allowed, stored, or staged within the fenced area. ESA fencing shall be shown on the final construction documents. **Mitigation Monitoring BIO-3:** ESA fencing shall be shown on final construction documents. ESA fencing shall be installed prior to commencing any staging, construction, ground disturbances or other project activities in the locations identified. The Project Biologist shall be notified by the construction contractor to confirm that ESA fencing has been properly installed prior to commencing site disturbances. Unannounced site visits by THCSD and/or the Project Biologist will occur to confirm fencing remains in place throughout project construction. The construction contractor is responsible for maintaining the fencing throughout project construction and reinstalling any fencing that is knocked down during construction immediately.	See attached Figure following table. To be shown on final construction drawings.	Prior to any site disturbances	Prior to any site disturbances	Construction contractor Project biologist		
BIO-4	**Avoidance and Minimization Measure BIO-4: Staging and Spill Prevention** Staging areas as well as fueling and maintenance activities shall be a minimum of 100 feet from riparian or aquatic habitats. Staging areas less than 100 feet from Turnback Creek will only be allowed with authorization of the project biologist. The project proponent will prepare a spill prevention and clean-up plan. **Mitigation Monitoring BIO-4:** Prior to commencing site disturbance or staging equipment, the construction contractor shall provide a staging and spill prevention plan to THCSD for compliance with this measure. Reduced setbacks must be approved prior to staging by the Project Biologist.	100’ setbacks. Project biologist may approve reduced setbacks	Prior to any site disturbances	Prior to any site disturbances	Construction contractor Project biologist		

Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
BIO-5	**Avoidance and Minimization Measure BIO-5: Erosion Control** Where and if bare ground will be exposed or disturbed in conjunction with project activities, the Contractor shall prepare an Erosion Control Plan for THCSD review and approval to address soil erosion within those areas. All soils disturbed by grading shall be reseeded or hydromulched or otherwise stabilized 48 hours in advance of a rain event. A likely rain/precipitation event is any weather pattern that is forecasted to have a 30% or greater chance of producing precipitation in the project area. The discharger shall obtain likely precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at https://www.weather.gov/forecastmaps. A qualifying rain event is one that produces 0.5 inch or more of precipitation within a 48 hour or greater period between rain events. Emergency erosion control measures shall be used as reasonably requested by THCSD. **Mitigation Monitoring BIO-5** The required plan will be implemented prior to site disturbance and implemented 48 hours in advance of any rain event. A likely rain/precipitation event is any weather pattern that is forecasted to have a 30% or greater chance of producing precipitation in the project area. The discharger shall obtain likely precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at https://www.weather.gov/forecastmaps. A qualifying rain event is one that produces 0.5 inch or more of precipitation within a 48 hour or greater period between rain events. The measure is the responsibility of the construction contractor.	Precipitation forecasts https://www.weather.gov/forecastmaps. National Weather Service	Erosion control plans will be prepared and implemented within 48 hours of a rain event as defined	See previous	Construction contractor		

Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
BIO-6	**Avoidance and Minimization Measure BIO-6: NPDES/SWPPP** If necessary, submit to the State Water Resources Control Board Storm Water Permitting Unit, a Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit - California's National Pollution Discharge Elimination System (NPDES) general permit for construction related storm water discharges for the disturbance of one acre or more. Disturbances of less than one acre may also require an NOI for coverage under the NPDES General Permit for construction-related storm water discharge and the State Water Resources Control Board Permitting Unit shall be contacted for determination of permit requirements. Commercial and Industrial developments may require an NOI even if less than one acre is to be disturbed. Obtain coverage or an exemption from these requirements. [Federal Water Pollution Control Act, Section 401, California Clean Water Act]. The permit may include preparation of a Stormwater Pollution Prevention Plan (SWPPP). Silt fencing or other materials, as required, will be installed consistent with the applicable water quality requirements specified in the Project's Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP). Fencing or other erosion control materials or devices shall be shown on the final construction documents. Erosion control devices will be avoided throughout Project construction and shall be monitored and maintained by the project manager throughout construction. **Mitigation Monitoring BIO-6** The Notice of Intent to obtain Coverage shall be submitted prior to any site disturbances. The measure is the responsibility of the construction contractor.		The Notice of Intent to obtain Coverage shall be submitted prior to any site disturbances.	See previous	Construction contractor		

Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
BIO-7	**Avoidance and Minimization Measure BIO-7: Environmental Awareness Training** All contractors involved in site development, affected THSD personnel, will attend mandatory Environmental Awareness Training prior to any site disturbances, including staging. A training log sign-in sheet will be maintained. The program will address proper implementation of minimization and avoidance measures contained herein. A video shall be prepared and is mandatory viewing prior to entering the project site for contractors or personnel not participating in initial training. Construction personnel shall be informed that if a FYLF is encountered in the work area, construction will stop and CDFW will be contacted for guidance. **Mitigation Monitoring BIO-7** The required mitigation measure will be implemented prior to site disturbance and for new employees prior to commencing site work. The Project Biologist or other environmental consultant may be contracted by THCSD to accomplish this task. THCSD is responsible for contracting with a qualified entity to provide Environmental Awareness Training. Ensuring that all on-site workers have received training prior to working on site is the responsibility of the construction contractor.	Sign in sheet shall be maintained No new employee allowed on site until training is completed	Prior to site disturbance	Prior to site disturbance and for new employees prior to commencing site work	Construction contractor THCSD or environmental consultant contracted by THCSD		
BIO-8	**Avoidance and Minimization Measure BIO-8: Stop Work** If FYLFs are found at any time during project work, construction will stop and CDFW will be contacted immediately for further guidance. **Mitigation Monitoring BIO-8** The measure shall be implemented throughout project construction and is the responsibility of the construction contractor. The project biologist has the authority to issue a stop work order pursuant to this measure.		Throughout project construction	Throughout Project Construction	Construction contractor, Project Biologist		

Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
BIO-9	**Avoidance and Minimization Measure BIO-9: Preconstruction Survey/Relocation for Western Pond Turtles** Within 48 hours of commencing site disturbances, the THCSD, or its representative, shall have a qualified biologist survey for western pond turtles in the on-site ponds within Sherwood Forest Subdivision. If no WPT are found, Mitigation and Minimization Measures BIO- 2 through BIO-5 will be implemented. If WPT are identified, environmental training shall include and the following specific measures will be implemented to avoid WPT: If found within project construction areas where harm to the turtle may occur from project activities, contractors shall contact the project biologist. The turtle first will be given the opportunity to leave the site on its own if the turtle actively is in the process of attempting to leave the site and is likely to successfully do so within the hour in the opinion of the qualified biologist. Otherwise, the qualified biologist will relocate the turtle downstream of the work area along the creek where permanent or nearly permanent water is pooled or present. At the discretion of the qualified biologist, turtles may be located upstream if higher quality pools with permanent or nearly permanent pools are identified. [California Code of Regulations, Title 14, Division 1, Chapter 5, Subsection 40(b)]6. **Mitigation Monitoring BIO-9**: The measure shall be implemented within 48 hours of commencing site disturbances by a qualified biologist (See **MM-1**). The construction contractor is responsible for ensuring that the Project Biologist is notified immediately when a WPT is found within the construction boundaries during construction. The Project Biologist is responsible for WPT relocation, if necessary.		Within 48 hours of commencing construction	Throughout construction if discovered	Construction contractor Project Biologist		

[6] Pursuant to California Fish and Game Code Title 14, Subsection 40(b) the capture, temporary collection, or temporary possession of native amphibians done to avoid mortality or injury in connection with lawful activities is permitted and such live capture and release of native amphibians done to avoid death or injury may occur with the permission of the CDFW. Because WPTs are not listed species pursuant to the state or federal endangered species act, neither an incidental take permit nor consultation beyond securing permission from CDFW to capture and release the individuals, is required.

BIO-10	**Avoidance and Minimization Measure BIO-10: Preconstruction Survey Birds** Prior to construction occurring between February 1st and August 30th (e.g., excavation, ground disturbance, or vegetation removal) a preconstruction survey for nesting birds will be conducted in accordance with the CDFW guidelines and a no-disturbance buffer will be established, if necessary. If equipment staging, site preparation, vegetation removal, grading, excavation or other project-related construction activities are scheduled during the avian nesting season (generally February 1 through August 30), a focused survey for active nests would be conducted by a qualified biologist within 14 days prior to the beginning of project-related activities. Surveys shall be conducted in all suitable habitats in the BSA. If the pre-construction surveys identify nesting bird species within areas that are within 500 feet of construction activities for non-raptors and within 0.5 mile for raptors, the following shall be implemented: A. Project-related construction impacts shall be avoided by establishment of appropriate no-work buffer zones to limit construction activities near the nest site. The no-work buffer zone shall be delineated by highly visible temporary construction fencing and shall be a minimum of 500 feet from non-raptor nests and 0.5 mile from raptor nests, unless a qualified biologist, in consultation with CDFW, determines that alternative buffers are permissible due to the nature and location of the specific species, its nest, and existing conditions to which the species has been habituated. Alternative buffers shall be established for special status non-raptor nests in consultation with CDFW. B. In consultation with CDFW, monitoring of nest activity by a qualified biologist shall be required if the construction activity has potential to adversely affect the nest or nesting behavior of the bird. C. No construction activity shall commence within the no-work buffer zone until a CDFW-approved qualified biologist confirms that the nest is no longer active (e.g., young have fledged). D. Canada geese depredation is an exception to these provisions per measure BIO-11. **Mitigation Monitoring BIO-10:** The measure shall be implemented prior to any construction occurring between February 1st and August 30th of the construction year. If construction is delayed or occurs in phases, a re-survey must be completed prior to recommencing work after a shut-down period of more than three months if construction occurs between February 1st and August 30th of the construction year. The construction contractor is responsible for ensuring that the Project Biologist is notified with ample time to complete the survey and consult with CDFW, if necessary.	See condition	Prior to any construction to take place between February 1st and August 30th of the construction year	Once – unless construction ceases or is done in phases (see condition)	Project biologist Construction contractor		

Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
BIO-11	**Avoidance and Minimization Measure BIO-11 Canada Geese Depredation** Pursuant to 50 Code of Federal Regulations Section 21.50, should a nesting Canada goose be identified within proposed work boundaries (i.e., outside of subdivision common area surrounding Turnback Creek), depredation may occur by registering online with the USFWS7. Depredation will occur, if necessary, in the form of a qualified biologist treating unhatched eggs to ensure that they do not hatch. **Mitigation Monitoring BIO-11:** The measure shall be implemented based on preconstruction surveys conducted by the Project Biologist. Because the species can nest post-surveys, the construction contractor is responsible for reporting any new nesting activity to the Project Biologist if it is observed within the work area. The Project Biologist is responsible for determining the appropriate measures and implementing them.	50 Code of Federal Regulations Section 21.50	Prior to site disturbance and ongoing	Throughout project construction	Construction contractor, Project biologist		
BIO-12	**Avoidance and Minimization Measure BIO-12: Preconstruction Surveys Suitable Bat Roosting (or Nursery) Areas & Provisions for Protection, if Identified** At least 15 days before commencing ground-disturbing activities between April and September of the construction year, a qualified biologist will survey snags, trees, rock crevices and other suitable cavities and structures in the BSA for roosting bats or bat nurseries. If bats are not found and there is no evidence of bat use, construction may proceed. If bats are found or evidence of use by bats is present, CDFW shall be consulted for guidance on measures to avoid or minimize disturbance to the colony or nursery. Subject to CDFW approval, measures may include excluding bats from roosts before construction begins. **Mitigation Monitoring BIO-12:** The measure shall be implemented at least 15 days prior to ground disturbance occurring between April and September of the construction year. The construction contractor is responsible for ensuring that the Project Biologist is notified with ample time to complete the survey and consult with CDFW, if necessary.		At least 15 days prior to commencing ground disturbing activities occurring between April and Sept. of the construction year.	Once	Construction contractor, Project biologist		

7 https://epermits.fws.gov/eRCGR/ and https://www.fws.gov/forms/3-200-13.pdf

Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
BIO-13	**Avoidance and Minimization Measure BIO-13: Hours of Construction.** Project construction shall be limited to 7:00 a.m. to 7:00 p.m. unless an emergency situation exists. **Mitigation Monitoring BIO-13:** The measure shall be implemented throughout project construction and is the responsibility of the construction contractor. THCSD has the authority to determine if an emergency situation exists and alternative hours may be implemented. THCSD is responsible for enforcing the measure if complaints are received.		Throughout project construction	Throughout project construction	Construction contractor THCSD to determine emergency situation that may alter hours.		
BIO-14	**Avoidance and Minimization Measure BIO-14: Minimize the Spread of Invasive Plant Species** Throughout project construction: • All hay, straw, hay bales, straw bales, seed, mulch or other material used for erosion control on the project site shall be free of noxious weed[8] seeds and propagules (Food and Agriculture Code Sections 6305, 6341 and 6461). • All equipment brought to the project site shall be thoroughly cleaned of all dirt and vegetation prior to entering the site to prevent importing noxious weeds and shall be cleaned of all dirt and vegetation prior to exiting the site to prevent exporting noxious weeds. (Food and Agriculture Code Section 5401). • All material brought to the site, including rock, gravel, road base, sand, and topsoil, shall be free of noxious weeds[9] and propagules. (Food and Agriculture Code Sections 6305, 6341 and 6461). **Mitigation Monitoring BIO-14:** The measure shall be implemented throughout project construction and is the responsibility of the construction contractor.		Throughout project construction	Throughout project construction	Construction contractor		

[8] Noxious weeds are as defined in Title 3, Division 4, Chapter 6, Section 4500 of the California Code of Regulations and the California Quarantine Policy – Weeds (Food and Agriculture Code, Sections 6305, 6341, and 6461).

[9] Ibid.

Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
BIO-15	**Avoidance and Minimization Measure BIO-15: Avoid Inadvertent Animal Trapping During Construction** To avoid inadvertently trapping special status or common animal species during construction, all excavated steep-walled holes or trenches more than two feet deep shall be covered at the end of each working day with plywood or similar material, or provided with one or more escape ramps constructed of earth fill or wooden planks, or equivalent, at each end of the trench. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a tapped animal is discovered, the contractor shall place an escape ramp or other appropriate structure to allow the animal to escape. Alternatively, the contractor shall contact the project biologist or California Department of Fish and Wildlife for assistance. Similarly, stored pipes or other materials providing potential cover for animals will be inspected prior to installation or use to ensure that they are unoccupied. **Mitigation Monitoring BIO-15:** The measure shall be implemented throughout project construction. The project biologist and/or THCSD staff are responsible for making unannounced inspections to ensure that the measure is being properly implemented and maintained. It is the responsibility of the construction contractor to implement the measure.		Throughout project construction	Throughout project construction	Construction contractor Project biologist (as necessary)		
Cultural Resources							

	Mitigation Measure CULT-1: Inadvertent Discoveries If a cultural resource is discovered during construction activities, the contractor shall comply with the following provisions: A. The Contractor's project manager shall notify the Twain Harte Community Services District by telephone within 1 hour of the discovery or the next working day if the department is closed. The THCSD shall promptly notify their qualified professional archaeologist. B. When the cultural resource is located outside the area of disturbance, a qualified professional shall be allowed to photodocument and record the resource and construction activities may continue during this process. C. When the cultural resource is located within the area of disturbance, all activities that may impact the resource shall cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by a qualified professional may continue. A qualified professional archaeologist shall be allowed to do a site survey to ascertain the need for evaluation work. D. When the cultural resource is determined to not be significant, the qualified professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the qualified professional. E. When a resource is determined to be significant, the resource shall be avoided with said resource having boundaries established around its perimeter by a qualified professional or a cultural resource management plan shall be prepared by a qualified professional to establish measures formulated and implemented in accordance with Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) to address the effects of construction on the resource. The qualified professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the qualified professional. For the purposes of implementing this measure, a "qualified professional" is an individual previously determined to be a qualified professional by the Tuolumne County Community Development Department Planning Division (https://www.tuolumnecounty.ca.gov/DocumentCenter/View/9984) and a "cultural resource" is any building, structure, object, site, district, or other item of cultural, social, religious, economic, political, scientific, agricultural, educational, military, engineering or architectural significance to the citizens of Tuolumne County, the State of California, or the nation which is 50 years of age or older or has been listed on or is eligible for listing on the National Register of Historic Places, the California Register of Cultural Resources, or any local register.	CEQA 21083.2 and 21084.1 (Public Resources Code)	Throughout Project construction	Throughout Project construction	Construction contractor District Qualified Archaeologist		

Mitigation Monitoring and Reporting Plan							
Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
	Mitigation Monitoring CULT-1: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction contractor with input from a qualified cultural resources professional, if necessary.						
CULT-2	**Mitigation Measure CULT-2 Treatment of Human Remains and Sacred Objects** No human remains or sacred objects have been identified in the project area, but there is always a possibility that excavation, or other actions could expose human burials previously unknown. Such remains are protected by state and federal laws and all project personnel must comply fully with applicable laws regarding the treatment of human remains including contacting the County coroner. The policies set forth in the American Indian Religious Freedom Act of 1978 and amendments (92 Stat. 469) should be honored by THCSD and its contractors. If the discovery is on private land, provision for treatment and disposition of any human remains will be in accordance with Section 7050.5 of the California Health and Safety Code, Sections 5097.94, 5097.98, of the California Public Resources Code, and Section 15064.5 of the California Code of Regulations implementing the California Public Resources Code, Sections 21000-21177. **Mitigation Monitoring CULT-2.** The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction contractor and, where necessary, the County Coroner, and/or qualified archaeologist.	CA PRC Sections 5097.94, 5097.98, H&S Code 7050.5 CCR 15064.5	Throughout Project Construction	Throughout Project Construction	Construction contractor Tuolumne County coroner Most likely descendent (if applicable)		
ENERGY							

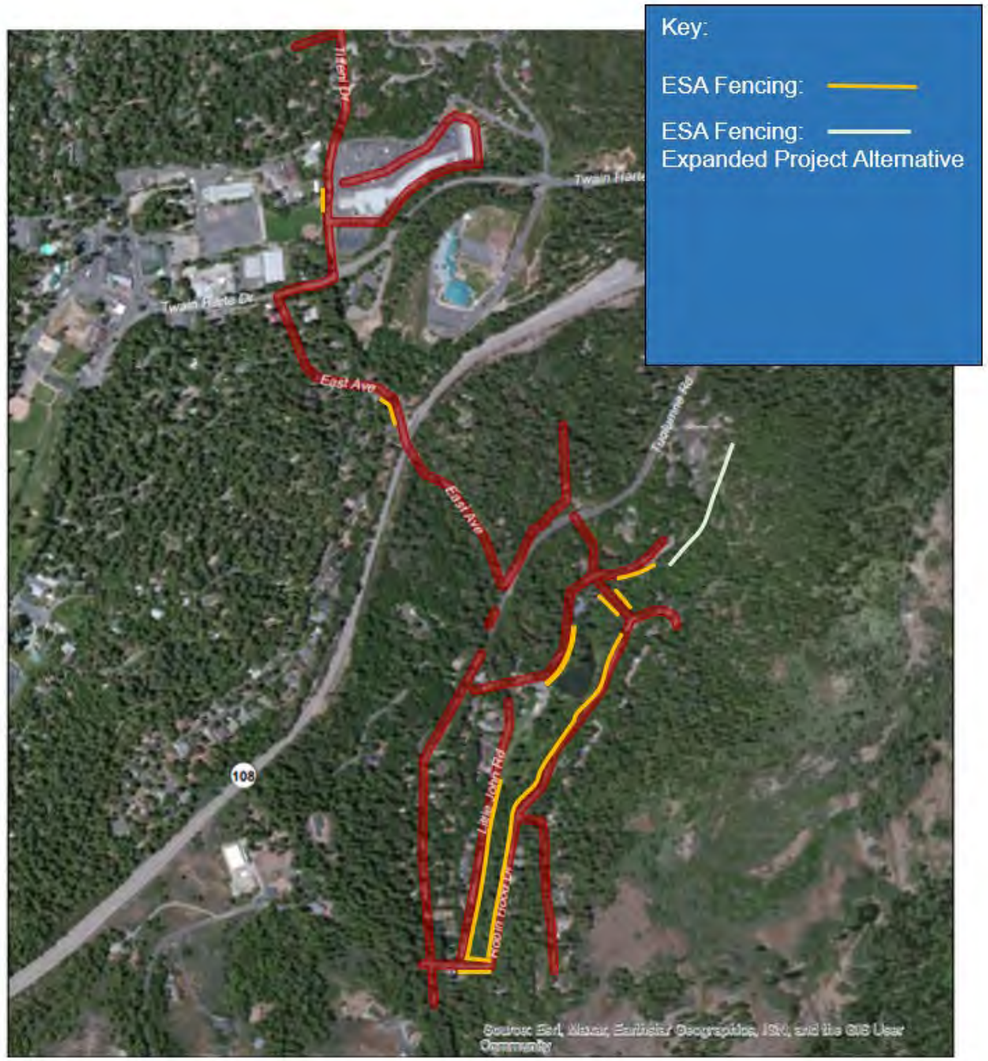
Mitigation Monitoring and Reporting Plan

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
Energy-1	**Mitigation Measure ENERGY-1: Construction Equipment** To the extent feasible, the following measures shall be incorporated into Project design and construction: • On-site idling of construction equipment shall be minimized (no more than five minutes maximum). • Biodiesel shall be used as an alternative fuel diesel for at least 15 percent of the construction vehicles/equipment used if there is a biodiesel station within five miles of the Project site. **Mitigation Monitoring ENERGY-1:** The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the Project proponent/construction contractor.		Throughout project construction	Throughout project construction	Construction contractor		
Energy-2	**See Mitigation Measure AQ-2: Equipment Emissions** (See Air Quality section for details)		See AQ-2	See AQ-2	See AQ-2		
GEOLOGY & SOILS							
GEO-1	**Avoidance and Minimization Measure GEO-1: Geotechnical Studies** Prior to commencing construction, the project proponent shall conduct testing for expansive soils, soil suitability, and slope stability in accordance with District standards to ensure that soils and slopes do not damage pipelines after installation or affect slope stability. **Mitigation Monitoring GEO-1:** The studies shall be completed prior to commencing construction and finalizing construction plans. The District is responsible for this measure.		Prior to commencing construction and finalizing construction plans	Once	THCSD		
GEO-2	**Avoidance and Minimization Measure BIO-5 (GEO-2): Erosion Control**		See BIO-5	See BIO-5	See BIO-5		

Mitigation Monitoring and Reporting Plan							
Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
GEO-3	**Avoidance and Minimization Measure BIO-6 (GEO-3): NPDES/SWPPP**		See BIO-6	See BIO-6	See BIO-6		
HAZARDS & HAZARDOUS MATERIALS, TRANSPORTATION							
HAZ-1	**Avoidance and Minimization Measure HAZ-1 (Traffic Access Management Plan)** Prior to commencing work within public roadways, the Contractor will prepare (to the District's and Tuolumne County's satisfaction), and throughout project construction will implement, a traffic access management plan to maintain emergency ingress, egress, and daily traffic flows throughout the Project boundaries. The access management plan should address public notification of upcoming construction, anticipated road closures, and detours (e.g., mailers in invoices, publication in local newspaper, website notices, postings along streets to be closed, electronic message boards). The District will coordinate road closures with the Twain Harte Fire Department, Twain Harte Elementary School, residences and local businesses to ensure that emergency ingress and egress is addressed prior to and during street closures. **Mitigation Monitoring HAZ-1:** The traffic access management plan will be prepared prior to initiating project construction and implemented throughout project construction. The measure is the responsibility of the construction contractor in consultation with the identified agencies.		Prior to initiating construction	Throughout project construction	Construction contractor District Tuolumne County Community Resources Agency Roads Twain Harte Fire Dpt. Twain Harte Elementary School		
HYDROLOGY AND WATER QUALITY							
HYDRO-1	**Avoidance and Minimization Measure BIO-3: ESA Fencing**		See BIO-3	See BIO-3	See BIO-3		
HYDRO-2	**Avoidance and Minimization Measure BIO-4: Staging and Spill Prevention**		See BIO-4	See BIO-4	See BIO-4		
HYDRO-3	**Avoidance and Minimization Measure BIO-5: Erosion Control**		See BIO-5	See BIO-5	See BIO-5		
HYDRO-4	**Avoidance and Minimization Measure BIO-6: NPDES/SWPPP**		See BIO-6	See BIO-6	See BIO-6		
HYDRO-5	**Avoidance and Minimization Measure BIO-7: Environmental Awareness Training**		See BIO-7	See BIO-7	See BIO-7		
NOISE							
NOISE-1	**Avoidance and Minimization Measure BIO-13: Hours of Construction.**		See BIO-13	See BIO-13	See BIO-13		
TRANSPORTATION							

Mitigation Monitoring and Reporting Plan							
Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
TRANS-1	**Mitigation Measure HAZ-1 (Traffic Access Management Plan)**		SEE HAZ-1	SEE HAZ-1	SEE HAZ-1		
TRIBAL CULTURAL RESOURCES							
TCR-1	**Mitigation Measure CULT-1: Inadvertent Discoveries**		See CULT-1	See CULT-1	See CULT-1		
TCR-1	**Mitigation Measure CULT-2: Treatment of Human Remains and Sacred Objects**		See CULT-2	See CULT-2	See CULT-2		
MANDATORY FINDINGS OF SIGNIFICANCE							
MFS-1	**See Biological and Cultural Resources, this table**		See all BIO and all CULT	See all BIO and all CULT	See all BIO and all CULT		
MFS-2	**Avoidance and Minimization Measure BIO-13: Hours of Construction.**		See BIO-13	See BIO-13	See BIO-13		

Required ESA Fencing (“Figure 8”)



Appendix B. Additional Mitigation Monitoring and Reporting Program (Expanded Alternative Project)

The Expanded Alternative Project is subject to all of the mitigation measures in Appendix A and, additionally, to the following:

Mitigation Monitoring and Reporting Plan – ADDITIONAL MITIGATION MEASURES FOR EXPANDED ALTERNATIVE PROJECT							
Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity (RE)*	*Initial*	*Date*
BIOLOGICAL RESOURCES							
BIO-A	**Expanded Alternative Project BIO-A** If the Expanded Alternative Project is pursued, a qualified biologist shall conduct a preconstruction survey for special-status plant species within 30 days prior to construction, during the appropriate blooming period within areas of suitable habitat within the Expanded Alternative Project area. If Tompkins sedge (*Carex tompkinsii*) or Mountain lady's slipper *(Cypripedium montanum)* or any other special-status plant species are not found, then no further measures are necessary. If Tompkins sedge or Mountain lady's slipper or other special-status plant species is observed during the preconstruction surveys, CDFW shall be notified at least 10 days prior to construction activities, in accordance with the California Native Plant Protection Act of 1977 (CFGC Section 1900-1913) to allow sufficient time to transplant the individuals to a suitable location. Alternatively, a buffer of at least 25 feet shall be established around any identified population through the installation of Environmentally Sensitive Area (ESA) fencing. **Mitigation Monitoring Expanded Alternative BIO-A:** The measure shall be implemented by a qualified biologist (See MM-1) during the appropriate bloom period for Tompkins's sedge (May – July) or Mountain lady's slipper (March – August) occurring prior to site disturbances.	California Native Plant Protection Act of 1977 (CFGC Section 1900-1913)	Within 30 days prior to construction during the appropriate blooming season Sedge (May – July) Lady's slipper (March – August)	Once	Qualified biologist		
BIO-B	**Expanded Alternative Project BIO-B – FYLF Avoidance** Prior to site disturbance in the Expanded Alternative Project boundaries, a qualified biologist shall survey for FYLF 24 hours or less before construction, including staging, commences. At least one day-time and one night-time survey is required. If findings are negative, ESA fencing shall be installed as shown in **Figure 8**. Fencing shall remain in place until all project activities are completed. Any fencing falling down during construction shall be re-installed immediately. No parking or material storage shall occur adjacent to ESA fencing. If findings are positive, work will not proceed until a formal consultation is undertaken with the United States Fish and Wildlife Service. **Mitigation Monitoring BIO-B:** The measure shall be implemented by a qualified biologist (See MM-1) within 24 hours of commencing site disturbances (including staging). If construction is delayed or occurs in phases, a re-survey must be completed prior to	Day and night survey required	24 hours or less before commencing construction	As per BIO-2	Construction contractor, Qualified biologist		

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity (RE)	Initial	Date
	recommencing work after a shut-down period of more than three months. The construction contractor is responsible for ensuring that the Project Biologist is notified with ample time to complete the survey and consult with CDFW, if necessary. If on-site biological monitoring is required throughout project construction, a monitoring schedule shall be executed prior to commencing construction between the Project Biologist and the contractor. Applicant shall comply with monitoring provisions of **BIO-3** for ESA Fencing**.**						
BIO-C	**Expanded Alternative Project BIO-C** If the Expanded Alternative Project is pursued, a qualified biologist shall conduct a preconstruction survey for Mariposa clarkia (*Clarkia biloba* ssp. *australis*) within 30 days prior to construction, during the appropriate blooming period within areas of suitable habitat within the Expanded Alternative Project area. A buffer of at least 25 feet shall be established around identified populations through the installation of Environmentally Sensitive Area (ESA) fencing to remain throughout project construction. If full avoidance is infeasible, those populations that can be protected will be protected through the installation of ESA fencing. For populations that cannot be avoided, CDFW shall be notified at least 10 days prior to construction activities, in accordance with the California Native Plant Protection Act of 1977 (CFGC Section 1900-1913) to allow sufficient time to allow for seed collection. **Mitigation Monitoring Expanded Alternative Project BIO-C:** The measure shall be implemented by a qualified biologist (See MM-1) during the appropriate bloom period for Mariposa clarkia (May – July) occurring prior to site disturbances.	California Native Plant Protection Act of 1977 (CFGC Section 1900-1913)	Within 30 days prior to construction during the appropriate blooming season (May – July)	Once	Qualified biologist		
CULTURAL RESOURCES / TRIBAL CULTURAL RESOURCES							
CULT-A **TCR-A**	**Expanded Alternative Project – CULT-A** Prior to undertaking the Expanded Alternative Project, a cultural resources survey of the expansion area shall be undertaken. Known historical artifacts in the area shall be evaluated and recorded and an addendum or subsequent IS/MND shall be prepared in accordance with the State CEQA Guidelines Sections 15162- 15164. **Mitigation Monitoring Expanded Project Alternative CULT-A** Prior to approving environmental document for Expanded Project Alternative, the cultural resources survey shall be conducted by a qualified archaeologist. An addendum or subsequent environmental study shall be conducted in accordance with CEQA Guidelines Sections 15162-15164, as necessary.	CEQA Guidelines Sections 15162-15164.	Prior to approving environmental document for Expanded Project Alternative	Once	Qualified archaeologist		