

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

PROJECT NAME:	CAWD CONSOLIDATION IMPROVEMENTS
Date of Preparation:	May 27, 2020
Lead Agency:	Cobb Area Water District
Project Description:	The CAWD completed consolidation of seven small water service districts in the Cobb Mountain area in 2019. CAWD identified deficiencies in the existing water systems that need to be rectified to bring the systems up to current regulations. Phase 1 improvements include: Adams Springs Distribution Improvements; Adams Springs Tank Rehabilitation; Alpine Meadows Distribution Improvements; Mount Hannah Distribution Improvements; Pine View Heights Distribution Improvements; and, Schwartz Tank Rehabilitation.
Project Location:	Cobb Area Water District, Lake County, CA
Findings:	<p>Based on the Initial Study dated May 27, 2020, the Cobb Area Water District has determined that:</p> <ol style="list-style-type: none">1. This project does not have the potential to degrade the quality of the environment, nor to curtail the diversity of the environment.2. This project will not have a detrimental effect upon either short-term or long-term environmental goals.3. This project will not have impacts that are cumulatively considerable.4. This project will not have environmental impacts that will cause substantial adverse effects on human beings, either directly or indirectly.
Public Review Period:	May 27, 2020 to June 25, 2020
Public Review:	The Initial Study is available (beginning May 27, 2020) for public review at the Cobb Area Water District, 16320 High Road, Cobb, CA. All documents referenced in the Initial Study are available at the office of Brelje & Race, 475 Aviation Blvd. Suite 120, Santa Rosa. The public is invited to submit written comments regarding the environmental findings and the proposed Mitigated Negative Declaration determination to: Cobb Area Water District, PO Box 284, Cobb, CA 95426, for receipt by 5:00 pm, Thursday, June 25, 2020. Persons commenting are advised to raise all pertinent issues during the public comment period. If action taken by the Cobb Area Water District is challenged in court, the legal challenge may be limited to those issues raised by persons during the public comment period.
Where to Submit Comments:	Cobb Area Water District PO Box 284 Cobb, CA 95426
Contact Person:	Ben Murphy, General Manager (707) 928-5262

The Mitigated Negative Declaration has been prepared in compliance with the provisions of the California Environmental Quality Act.

MITIGATED NEGATIVE DECLARATION

Project Title:	CAWD Consolidation Improvements
Date of Preparation:	May 27, 2020
Lead Agency:	Cobb Area Water District
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Project Location:	Cobb Area Water District, Lake County, CA
General Plan:	Varies, primarily in roadways or public utility easements
Zoning:	Varies, primarily in roadways or public utility easements
Findings:	<ol style="list-style-type: none">1. With the incorporation of mitigation measures, this project does not have the potential to degrade the quality of the environment, nor to curtail the diversity of the environment.2. This project will not have a detrimental effect upon either short-term or long-term environmental goals.3. This project will not have impacts that are cumulatively considerable.4. This project will not have environmental impacts that will cause substantial adverse effects on human beings, either directly or indirectly.<ul style="list-style-type: none">○ The proposed project could not have a significant effect on the environment and a Negative Declaration will be prepared.● Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A Mitigated Negative Declaration will be prepared.
Public Review Period:	May 27, 2020 to June 25, 2020
Mitigation Measures:	See Initial Study
Where to Submit Comments:	Cobb Area Water District PO Box 284 Cobb, CA 95426
Contact Person:	Ben Murphy, General Manager (707) 928-5262
Attachment:	Initial Study

CAWD CONSOLIDATION IMPROVEMENTS

Lake County, California

Initial Study

May 2020

Prepared for:

Cobb Area Water District
PO Box 284
Cobb, CA 95426

Prepared by:

Brelje & Race Engineers
475 Aviation Blvd., Suite 120
Santa Rosa CA 95403
707/576-1322

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Appendix A: Mitigation Monitoring & Reporting Plan

PROJECT DATA

Project Title:	CAWD Consolidation Improvements
Lead Agency:	Cobb Area Water District PO Box 284 Cobb, CA 95426
Contact Person:	Ben Murphy, General Manager (707) 928-5262
Project Location:	Cobb Area Water District, Lake County, CA
General Plan Designation:	Varies, primarily in roadways of public utility easements
Zoning:	Varies, primarily in roadways of public utility easements

INTRODUCTION

The purpose of this Initial Study is to provide the Lead Agency, the Cobb Area Water District (District), with an assessment of relevant environmental information associated with implementation of the proposed project in order to determine whether a Negative Declaration, Mitigated Negative Declaration or an Environmental Impact Report (EIR) will be required for the Cobb Area Water District Consolidation Improvements Project. This environmental evaluation is intended to fully inform the Lead Agency, other interested agencies and the public of the proposed plan and associated environmental impacts. This Initial Study has been prepared in conformance with the requirements of §15063 of the 2020 California Environmental Quality Act (CEQA) Guidelines.

If the Lead Agency determines that there is no substantial evidence that the project may cause a significant effect on the environment, then a Negative Declaration may be prepared. A Negative Declaration may include conditions of approval to avoid or reduce potential impacts. However, if the Initial Study determines that the project may cause an unavoidable or unknown significant effect on the environment, the Lead Agency must prepare an EIR.

The Initial Study process also enables the Lead Agency to modify a project, mitigating adverse effects before an EIR is prepared, thereby enabling the project to move forward under a Mitigated Negative Declaration. This facilitates the environmental evaluation portion of the project development process and eliminates unnecessary EIRs.

PROJECT SETTING

The project area is roughly bisected by Highway 175 within the rural community of Cobb Mountain, approximately midway between the communities of Middletown and Kelseyville. The project is located entirely within unincorporated Lake County. The project's regional location is shown on Figure 1 and the CAWD boundary is shown on Figure 2.

The project area is predominantly rural residential composed of a mixture of forest and chaparral vegetation groups. Surrounding land uses are agricultural or undeveloped lands with large lot sizes. The project area and its surroundings were heavily burned by the 2015 Valley Fire, as shown on Figure 2. The project locations have been cleaned up and many lots have been rebuilt or are in the process of rebuilding.

COBB AREA WATER DISTRICT

The Cobb Mountain area in Lake County is comprised of a diverse group of neighboring communities that, until recently, were served by at least twelve small water systems. In 2015, the area was severely affected by the Valley Fire. The fire caused significant damage to facilities in two of the water systems and to residences in four of the water systems.

While discussions of consolidation of the small water systems into a larger single water system had been ongoing for many years, the Valley Fire readily exposed to all, from the local property owner to State officials, the limitations and complexities of there being many small water systems managed by multiple entities in the midst of a natural disaster. The fire also highlighted the disparate levels of water service present in the Cobb Mountain area. The realization of these complexities, exposed by the fire, provided the impetus to fund a feasibility study to consolidate the systems. The study resulted in consolidation of seven existing water systems with Cobb Area County Water District, commonly known Cobb Area Water District (CAWD).

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Legend
--- CAWD Boundary

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

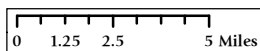


FIGURE 1
PROJECT LOCATION

CAWD
MAY 2020

While the consolidation was primarily managerial and operational in nature, it has allowed some and will allow further physical connection of systems that are in close proximity.

BACKGROUND

In 1953, the Cobb Mutual Water Company was formed to serve water to 18 rural subdivisions in the Cobb Mountain area. The Cobb Area County Water District formed on October 1, 1991, pursuant to Division 12 of the California Water Code. After CAWD formation, all assets and liabilities of the Cobb Mutual Water Company were transferred to the newly formed CAWD. While the legal name of the water district is Cobb Area County Water District, the system is known locally as Cobb Area Water District. In 2018, seven public water systems were consolidated with CAWD and one subdivision was annexed into the Service Area, resulting in CAWD as it is currently comprised, discussed in this document, and shown on Figure 3.

As a result of the recent consolidation, CAWD now owns and operates five separate water systems: Cobb Area, Bonanza Springs, Starview, Mount Hannah, and Branding Iron/Hill 9 & 10 as shown on Figure 3. Each water system is stand-alone water system, consisting of all facilities necessary to provide water. The Cobb Area water system was created by combining the former Cobb Area Water District service boundary with the service boundaries of the former Pine Grove and Adams Springs water systems. The Bonanza Springs water system consists of the former Bonanza Springs CSA-#7. The Starview water system consists of the former Starview CSA-#18 and the Alpine Meadows Subdivision. The Mount Hannah water system consists of the former Mount Hannah CSA-#22. The Branding Iron/Hill 9 & 10 Water System consists of the former Branding Iron Mutual Water Company and the Hill 9 & 10 Water Association.

The post-consolidation CAWD service area encompasses approximately 5,700 acres. Prior to the Valley Fire, the combined systems served a population of approximately 2,953 people through 1,244 connections. The pre-fire connection total was used in the subsequent evaluations as more data is available for that condition and it is expected that the number of connections and population will return to near the pre-fire levels as the area is rebuilt. The combined systems making up CAWD currently have 931 active connections.

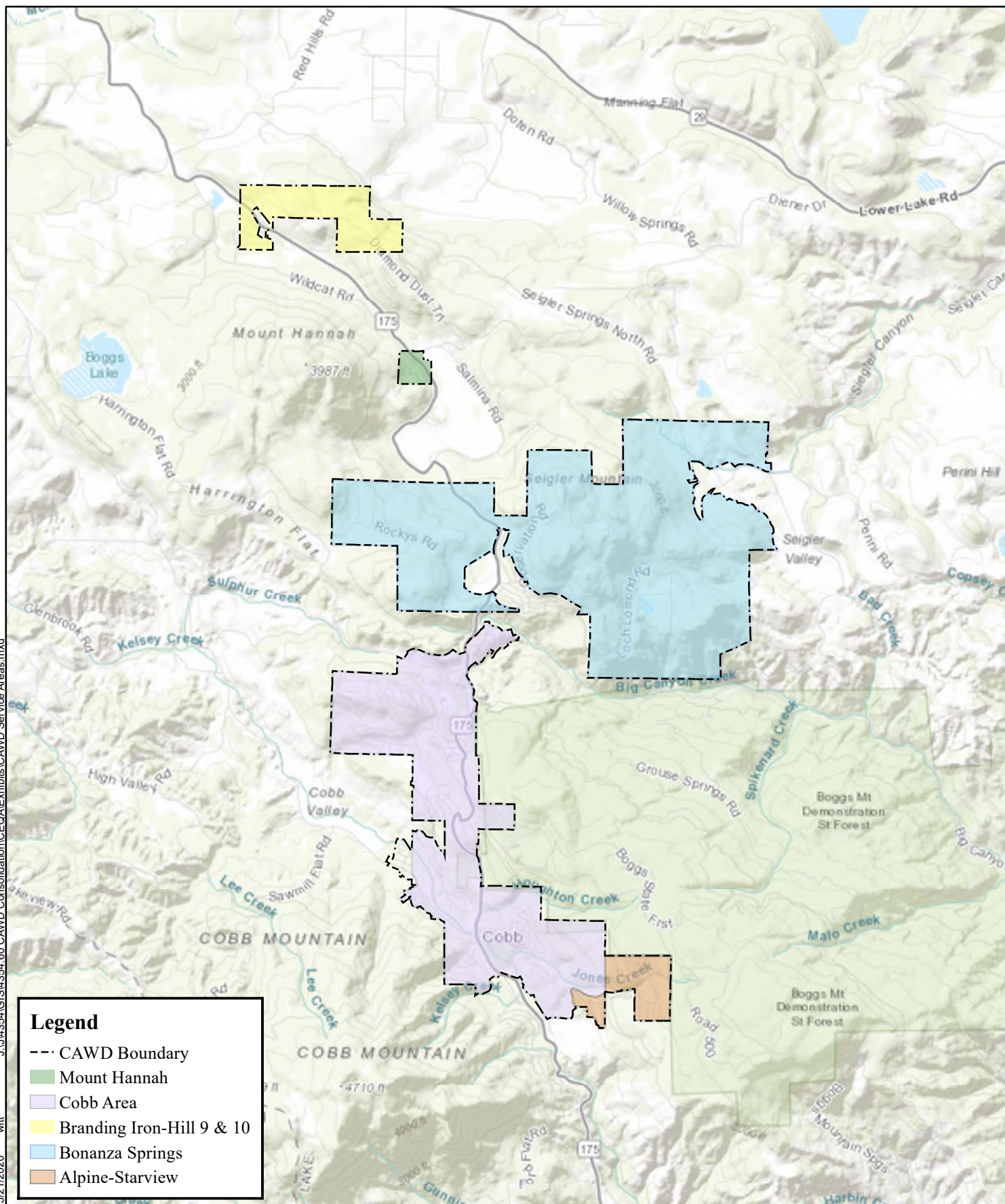
CAWD is governed by a five member Board of Directors, each a voter of the district. The Board of Directors acts via ordinances, resolutions, and motions. They are responsible for adopting rates and fees to be collected by the CAWD. The board also has the authority to appoint the general manager, secretary, and treasurer. The general manager is in charge of daily operations.

The following describes each of the existing water systems, now consolidated into the CAWD.

Cobb Area Water System

The Cobb Area water system service area encompasses approximately 1,485 acres. Prior to the Valley Fire, the three water systems (CAWD, Pine Grove, and Adams Springs) that now comprise the Cobb Area water system provided water to approximately 1,870 people through 845 connections. Currently, there are 631 active connections. The water system's number of connections is expected to return to its pre-fire number once rebuilding is complete.

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Legend

- CAWD Boundary
- Mount Hannah
- Cobb Area
- Branding Iron-Hill 9 & 10
- Bonanza Springs
- Alpine-Starview

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

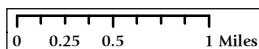


FIGURE 3
CAWD SERVICE AREAS

CAWD
MAY 2020

SOURCE, TREATMENT AND STORAGE

Cobb Area's water supply is derived from five sources: Wells 1, 2 and 3, the Boggs Spring, and the Schwartz Spring. All sources are classified as groundwater sources by the State Water Resources Control Board – Division of Drinking Water (DDW). Well 3 is the only source that produces water with constituents that exceed their respective Maximum Contaminant Levels (MCLs); therefore, the water from this well must be treated before it can be delivered to the distribution system.

All sources are disinfected using NSF-60 certified liquid sodium hypochlorite (NaOCl). Disinfection ensures that the system serves water that complies with state standards regarding absence of coliform bacteria in the distribution system.

Treatment of raw water derived from Wells 3 takes place at the Emerford booster station site. The Well 3 treatment facilities sustained severe damage in the Valley Fire; the facilities have since been under reconstruction and are almost complete. The treatment facilities consist of oxidation using ozone, filtration using a green sand filter, and disinfection using a chlorine solution. The ozone and filtration are used to reduce iron and manganese levels. The Emerford clearwell is an 18,000 gallon welded-steel tank. Disinfection is accomplished by injecting a sodium hypochlorite solution into the clearwell when the booster pumps are pumping water from the clearwell to the Lassen tanks.

Storage is provided by seven storage tanks located at six sites within the distribution system. The capacities and materials of each tank shown below.

Tank Site	Number of Tanks	Year Built	Tank Type	Capacity (gallons)
Boggs Tank	1	2004	Bolted Steel	200,000
Forestry Tank	1	2018	Bolted Steel	200,000
Schwartz Tank	1	1940s; rehab in 2014	Bolted Steel	166,000
Lassen Tank Site	2	1985, 1995	Welded Steel	200,000 (Total)
Adams Springs Tank	1	1998	Bolted Steel	200,000
Horizontal Tank	1	1950s	Welded Steel	25,000
Total Storage				991,000

DISTRIBUTION SYSTEM

The distribution system conveys water from a source or treatment facility to the customer. The existing distribution system is constructed of various piping materials including asbestos cement (ACP), polyvinyl chloride (PVC), ductile iron (DIP), galvanized steel (GSP), high density polyethylene (HDPE), and tar wrapped steel. Piping size ranges from 1.5- to 8-inch diameter. Service connections are generally ¾ inch diameter and were installed using various piping materials.

The distribution system includes four service areas that are further subdivided into twelve primary pressure zones. Multiple pressure zones have been established where necessary to accommodate elevation change and/or piping layout. Base pressure in each service area is set by the water level in the tank(s) located therein. Where lower service pressures are desired and/or necessary within a service zone, pressure reducing valves (PRV's) have been installed. Where service pressures need to be greater than is provided by the tank, a booster station is used. Because no meters have been installed at the boundaries between pressure zones, pressure zone water demands are unavailable.

The distribution system includes three booster stations: the Emerford booster station, the Big Fir booster station, and the Lassen hydro-pneumatic booster station.

The Emerford booster station is located at the intersection of State Route 175 and Emerford Drive and supplies water to the Lassen tanks. Prior to the Valley Fire, the station consisted of two pumps, one 15-HP and one 25-HP. The fire destroyed the booster station. The booster station has been rebuilt with just one 25-HP pump and accommodations for a second pump.

The Big Fir booster station is located in the Boggs service area near the intersection of Big Fir Lane and Manzanita Court. Its function is to lift water from the Schwartz service area to the Boggs service area. The booster station consists of one 10-HP pump installed in a vault. The facility does not include a second pump nor does CAWD have one on-hand in the event of pump failure.

The Lassen hydro-pneumatic station serves a hydraulically separate pressure zone. The booster station consists of one 7.5-HP booster pump and a bladder pressure tank. The facility does not include a backup pump nor does CAWD have one in stock in the event of a pump failure.

There are nine pressure reducing valve (PRV) stations installed in the distribution system. The stations are typically installed in below-grade concrete vaults and generally consist of two valves: a valve that matches the main size and a smaller valve plumbed in parallel. The smaller valve provides water for routine (domestic) demands and the larger valve should open only when higher demands, such as fire flows, are required.

The distribution system includes both wharf hydrants and fire hydrants interspersed throughout. Wharf hydrants consist of a 4-inch standpipe with one or two 2.5-inch outlets. The fire hydrants are 6-inch dry barrel hydrants. CAWD's Ordinances do not guarantee the provision of fire protection.

Bonanza Springs Water System

The Bonanza Springs water system consists of the former County Service Area #7 – Bonanza Springs, which was formed in December 1971 to create a single water system to serve the customers of the previous Bonanza Springs, Seigler, and Forest Oaks Water Companies. The system served approximately 450 people through 177 connections before the Valley Fire. There are currently 143 active connections. The Bonanza Springs service area covers approximately 2,430 acres.

SOURCE, TREATMENT AND STORAGE

Bonanza Springs has one standby and two active wells. Secure source capacity is 80 gpm or 115,200 gallons per day (with the largest single source out of service). Well 2 has been designated as a standby well as it does not have an annular seal. As a standby source, state regulations limit the use of Well 2 to not more than five consecutive days and a total of 15 days per year.

The current treatment consists of disinfection using a sodium hypochlorite solution and filtration. Storage is provided by a single 100,000-gallon welded steel tank. The tank was constructed in 1989 and recoated in 2013. The tank has no mechanical hold down provisions and piping connections are rigid. Well operations are based on the storage tank water level. Tank water level is communicated to the well pump controller using a telephone-line based telemetry system.

DISTRIBUTION SYSTEM

The distribution system consists of approximately 19,700 linear feet of piping ranging in size from 1.5- to 8-inch diameter. Piping material is PVC and asbestos cement. A distribution replacement project is currently ongoing. The project includes installing 52 replacement services (1-inch) and 20 fire hydrants. The fire hydrants are being installed on mains as small as 3-inch diameter.

The distribution system includes two pressure zones that result from a pressure reducing valve station on Loch Lomond Road between Ridge Road and Shenandoah Road. The PRV station consists of two hydraulically-actuated valves, a 6-inch and a 2-inch, in parallel. The station was designed with isolation valves so either control valve can be independently removed from service for maintenance. The larger valve may have been installed at the time the pipe was installed (1971).

Starview Water System

The Starview water system consists of the former County Service Area #18 – Starview (Starview), originally formed in June 1985 to provide public ownership and operation of the previously privately-owned domestic water system the Starview subdivisions. As part of the recent consolidation, a subdivision below the Starview water system, Alpine Meadows, was annexed into CAWD. As part of this annexation, Alpine Meadows will be served by the Starview water system facilities. Alpine Meadows is not a regulated public water system and, CAWD is receiving state aid to supply bottled drinking water to homes within the subdivision, indicating that the water previously distributed in the subdivision would most likely not meet state standards.

Starview served a population of approximately 400 people through 142 connections before the Valley Fire. Currently, there are 76 active connections. The connection of Alpine Meadows to Starview would add 14 connections to Starview, bringing the total system count to 156 connections (not all are active currently). Starview's total service area covers approximately 152 acres.

SOURCE, TREATMENT AND STORAGE

Starview has one inactive and one active supply source, Well 2 and Well 3, respectively. Raw water samples from Well 3 have exceeded the secondary MCL for iron (300 ug/L) in the past, with the most recent exceedance being in April 2009. The subsequent test results (in 2012, 2015, and 2018) did not exceed the secondary MCL.

Water produced by Well 3 is disinfected using sodium hypochlorite and is treated with two magnesium oxide filters in parallel for corrosion control. Storage is provided by a 100,000-gallon welded-steel storage tank. The tank was constructed in 1989. The foundation is a gravel pad retained by a steel ring. The tank has no mechanical hold down provisions and piping connections are rigid. The tank has never been recoated. Well operation is based on the tank water level. Tank water level is communicated to the well pump controls using a telephone-line based telemetry system.

DISTRIBUTION SYSTEM

The distribution system consists of piping ranging in size from 4-inch to 8-inch in diameter. A significant portion of the distribution system and nearly 90 percent of the homes were destroyed due to the Valley Fire. The damaged distribution system has since been replaced. The distribution system was replaced in two separate capital improvement projects prior to consolidation. The first project replaced water mains in the northern section of the distribution system and installed 25 new fire hydrants throughout the system. The

second project replaced 129 water services throughout the system. The distribution system now primarily consists of 6-inch PVC main in the northern section and 4-inch AC main in the southern section.

Mount Hannah Water System

The Mount Hannah water system consists of the former County Service Area #22 – Mount Hannah. The water system was originally constructed in the early 1970s to serve the Mount Hannah subdivisions and adjacent parcels. The Mount Hannah water system serves approximately 100 people through 36 connections over approximately 38 acres. The Mount Hannah water system came under the ownership and operation of CAWD with the recent consolidation efforts.

SOURCE, TREATMENT AND STORAGE

Water supply for the Mount Hannah system consists of two active groundwater wells and one inactive well. Operations staff reports that the static water level varies throughout the year, reflecting seasonal changes to the groundwater table. When the groundwater level is high, Well 2 can produce water at 37 gpm, the rating of the pump. During periods when the groundwater level is low, the well can become over-pumped because the well pump's capacity exceeds the ability of the well to produce water. Well 3 reportedly produces 15 gpm. The wells cannot be operated at the same time due to limitations in the power supply and controls system.

Water quality concerns with Well 2 include turbidity, aluminum, and iron. Water quality of Well 3 has not exceeded any primary or secondary standards based on a review of the well's water quality test results. Well water is disinfected with a sodium hypochlorite solution and filtered.

System storage is provided by a 97,000 gallon bolted-steel tank that was constructed in 2008. The tank connections to distribution piping are below grade. In addition, the tank is attached to the foundation by anchor bolts. The controls system turns the well pumps and chemical injection pump on and off. Well operation is based on a timer. The operators adjust the amount of time the well runs based on the tank level observed that day. Operations staff change which well is in operation via a manual switch. The building that houses the controls and treatment facilities is in disrepair.

DISTRIBUTION

The distribution system consists of piping ranging in size from 2- to 6-inch diameter. A new 6-inch diameter PVC main was installed in 2016 along Lovina Drive to replace an aging main. With the exception of that main segment, the larger diameter piping is "dip and wrap" steel pipe. Smaller diameter distribution and service piping is galvanized iron pipe. Water mains are located in the roadways, along cross-country routes, and even in customers' backyards.

Comparison of water production and water sales records suggest that 40 to 60 percent of water produced is unaccounted for. From 2013 through 2016, annual well production ranged from 145 to 196 gallons per day per connection as compared to annual sales of 75 to 100 gallons per day per connection. Potential explanations for the high losses include system leaks, unrecorded operational uses (main flushing), theft, and inaccurate production and sales meters.

Branding Iron/Hill 9 & 10 Water System

The Branding Iron/Hill 9 & 10 water system consists of the former Branding Iron Mutual Water Company and the former Hill 9 & 10 Water Association. The Branding Iron Mutual Water Company was formed in

1967 to serve water to the Branding Iron Acres Subdivision and several adjacent parcels. The water system served approximately 90 people through 27 connections. The Hill Nine and Ten Water Association was formed in 1970 to serve water to parcels along Diamond Dust Trail.

These two systems are in the process of being interconnected as the result of a capital improvement project. Environmental review of the interconnection project was conducted in 2018 (State Clearinghouse Number 2018042066). This system is not discussed further in this document.

PROJECT OBJECTIVES/PURPOSE AND NEED

Consolidation of the water districts into CAWD resulted in the CAWD operating and maintaining water systems that were in various states of repair and regulatory compliance. The Consolidation Improvements project's primary objective is to bring all of the water service areas up to current regulatory standards to continue to provide residents with safe and reliable drinking water. A secondary objective is to provide additional fire hydrants where the systems can support adequate fire flows.

EVALUATION CRITERIA

As part of the consolidation project, the existing water systems were assessed using current regulatory evaluation criteria from the California Code of Regulations, Lake County Code, and industry standards. These criteria define facilities that would comprise a reliable and safe drinking water system and have been used to identify deficiencies within the existing water systems and to develop recommendations where improvements are needed. The following evaluation criteria were utilized in identifying system deficiencies.

System Component	Evaluation Criteria
Source	
Source Capacity	Must meet maximum day demand of last 10 years with highest-capacity source offline
Well Construction	50 foot annular seal
	Wellhead 18" above finished grade
	Concrete surface seal: 2 feet laterally in all directions from casing and 4 inches thick
Well Pump	Pumping capacity to deliver maximum day demand (MDD)
	Automatically controlled and remotely monitored
Treatment	
Disinfection	Negative results on bacteriological tests
Treated Water Quality	Treated water to meet current drinking water standards
Treatment Equipment	Capacity to treat MDD
	Automatically controlled and remotely monitored
Storage¹	
Fire Storage	60,000 gallons (500 gpm for 120 min.) ^{2, 3}
Domestic Storage	Maximum Day Demand ³

¹ Storage requirement shall be the larger of the calculated storage volume (fire or domestic).

² All new houses are required to install fire sprinklers.

³ MDD and/or fire storage available for use in each service zone.

Distribution System	
Minimum Distribution Pressure	40 psi during normal operations 20 psi at all times including during emergency operations
Maximum Distribution Pressure	150 psi ⁴
Maximum Service Pressure	80 psi at the structure
Piping Material	HDPE, PVC, DIP; durable and corrosion-resistant
Water Main Sizes	4-inch minimum
Services	1-inch minimum service lateral and meter
Fire Flow	500 gpm ²
Fire Hydrants	Dry barrel
Fire Hydrant Spacing	500 feet maximum; 400 feet on dead end roads 200 feet from end of road

POLICY SETTING

Development in the project area is governed by the 2008 Lake County General Plan and the County's zoning code. Development in the Cobb Mountain area is also guided by the 1989 Cobb Mountain Area Plan. The CAWD is governed by a publicly elected board and is charged with operating and maintaining the water system facilities within its service areas.

PROJECT DESCRIPTION

The CAWD completed consolidation of seven small water service districts in the Cobb Mountain area in 2019. As part of the consolidation process, CAWD identified deficiencies in the existing water systems that need to be rectified to ensure reliable delivery of safe drinking water to Service Area residents. It is anticipated that the CAWD Consolidation Improvements project will be funded and constructed over several years. Phase 1 projects will be assessed at a project level of review in this document and Phase 2 projects will be assessed at the program level of review and be subject to subsequent environmental review when additional project details are known. Phase 1 and Phase 2 projects are shown on Figure 4. The Alpine Meadows Distribution project shown on Figure 7 represents the proposed project where access was allowed for biological and cultural resources investigation. Should additional area inside of the service area be permitted for investigation and the service area residents and CAWD determine upgrading the service area interior water main network is desirable, the CAWD may include those additional water mains in the Alpine Meadows project. The addition of those mains would require on-site surveys for biological and cultural resources as well as either an Addendum to this CEQA document or preparation of a Subsequent Mitigated Negative Declaration.

All water mains will include new lateral services to existing water meters, where necessary. Generally, water main installation will include a 24-inch wide by 42-inch deep trench in existing roadways, unless otherwise indicated to be outside of roadways. Some trenches could be as deep as 84 inches. Existing water mains will be abandoned in place or removed when necessary. Tank rehabilitation will be limited to the existing tank sites. The six Phase 1 projects are shown on Figures 5 through 10 and include the following:

⁴ Maximum distribution pressure may be higher if pipe materials are selected to withstand higher pressures.

ADAM SPRINGS DISTRIBUTION IMPROVEMENTS

The area has excessive pressure and leaks in the mains in the lower portion of the pressure zone. The distribution system has areas with undersized mains and mains that are leak prone. Undersized mains range from 1 1/2- to 3-inch diameter; the minimum main size is 4-inch diameter for community water systems per state regulations. Unaccounted for water losses in the service area ranged from 11% to 40% during the three year period ending in 2015 based on comparison of system production and sales records. Because inter-area water transfers are unmetered, it has not been possible to identify with certainty which service areas are experiencing higher water losses. Operations staff reports that some areas are more leak prone than others, in particular those where tar-wrapped steel pipe and/or ACP are prevalent.

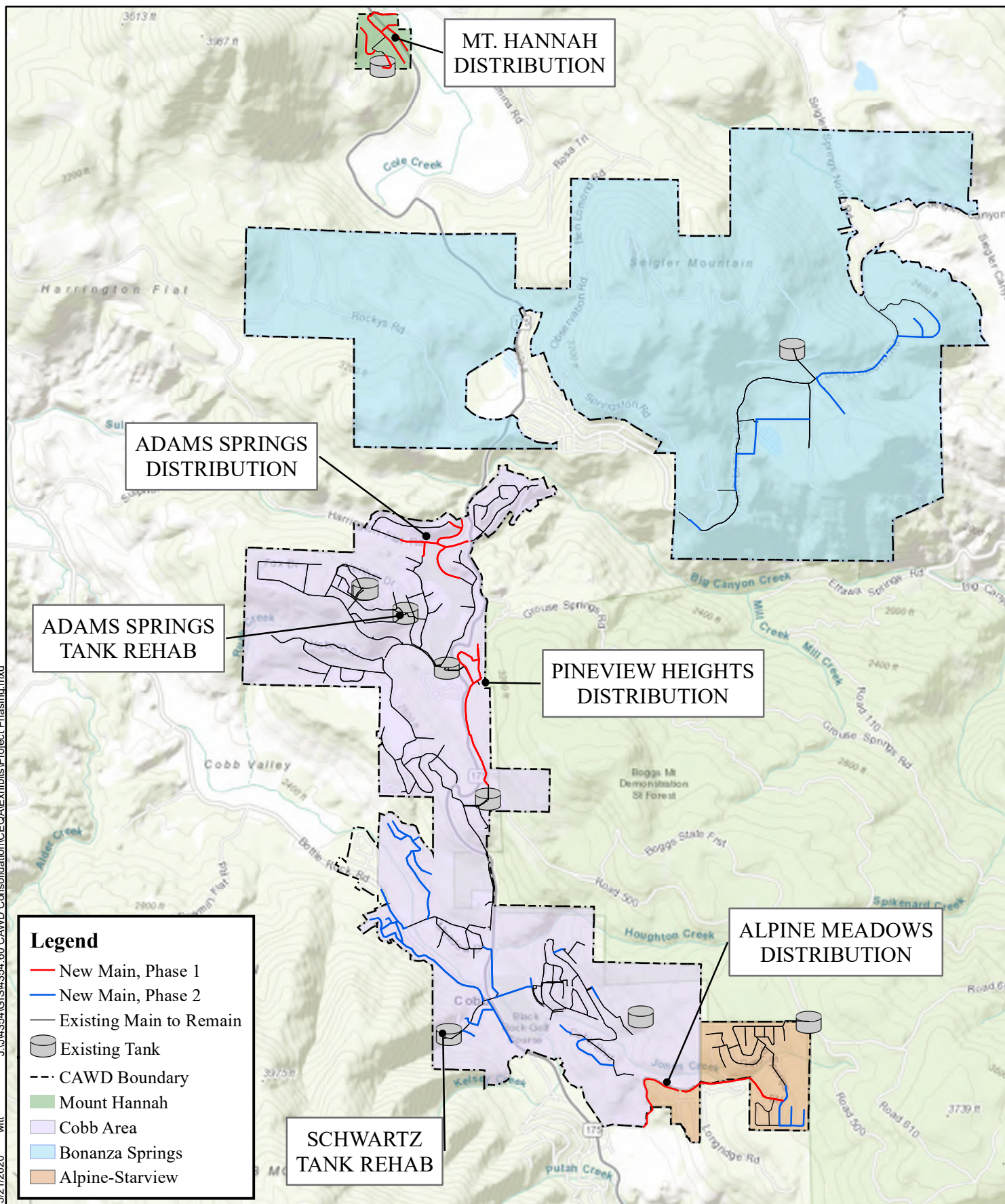
Existing undersized and leaking water mains will be replaced with new 2-, 6- and 8-inch water main and new fire hydrants will be installed. Approximately 5,300 liner feet of main will be installed, generally within existing roadways. Disturbed water services will be transferred to the new main. A pressure reducing valve station will be installed to moderate pressure in the distribution system. The project will impact approximately 21,000 square feet (0.48 acre). The Adams Springs Distribution Improvements are shown on Figure 5.

ADAMS SPRINGS TANK REHABILITATION

The Adams Springs tank was designed and installed in 1994 in compliance with AWWA D103 (1987), the bolted-steel tank standard at the time. The Adams Springs tank was inspected in 2017 and signs of interior corrosion were noted. U-channels that secure bolt heads to the tank were observed to be corroding. The tank could eventually develop leaks because the bolts will loosen as material between the bolt and nut is lost. All piping is rigidly connected to the tank.

The existing Adams Springs water tank will be refurbished, potentially including replacement of the interior and exterior coatings. Existing rigid connections will be replaced with flexible connections to resist seismic forces. The Adams Springs Tank site is shown on Figure 6.

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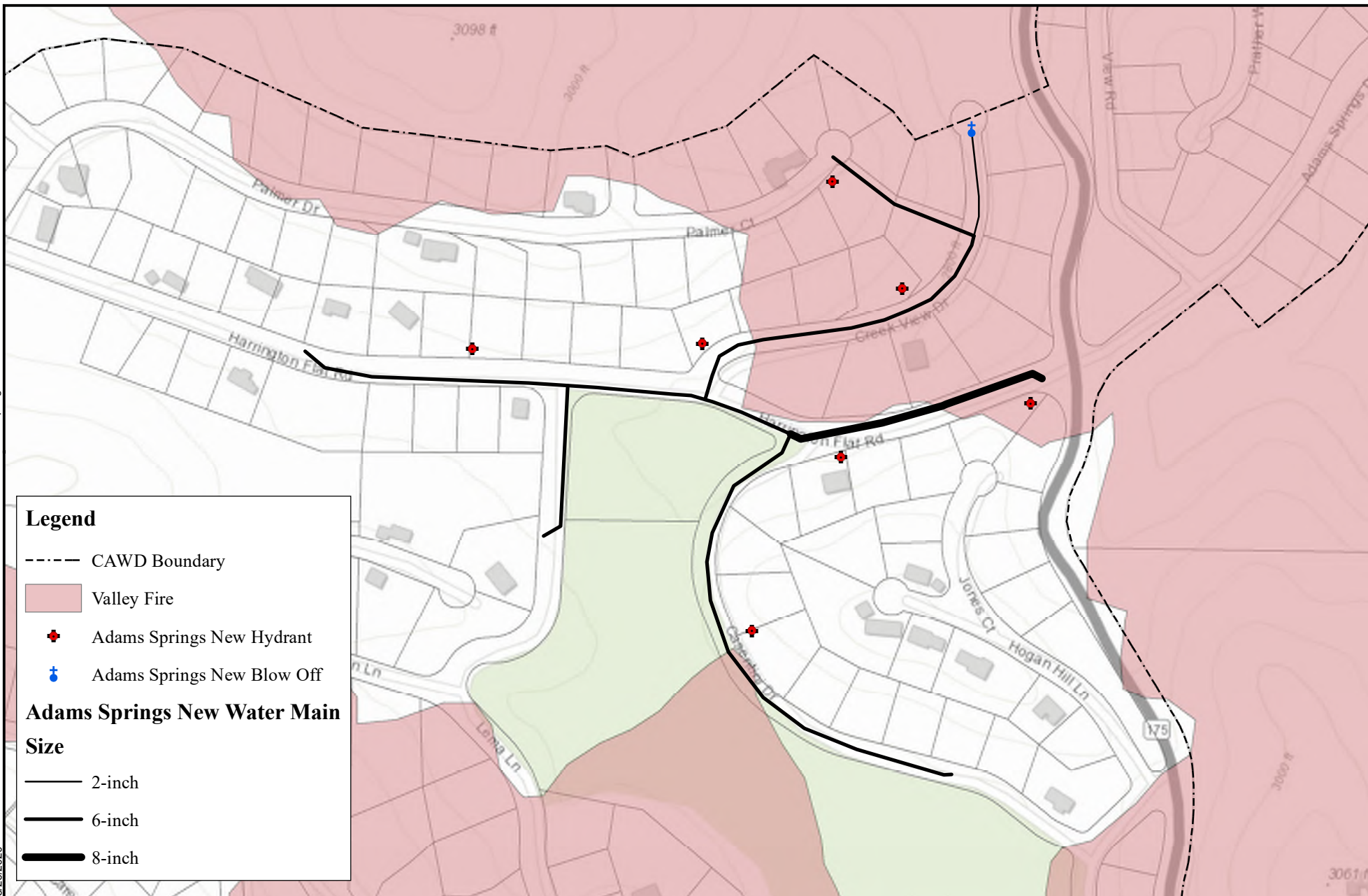


Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 0.15 0.3 0.6 Miles

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5/26/2020 Author



Legend

- CAWD Boundary
- Valley Fire
- Adams Springs New Hydrant
- Adams Springs New Blow Off

Adams Springs New Water Main Size

- 2-inch
- 6-inch
- 8-inch

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

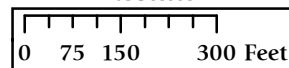
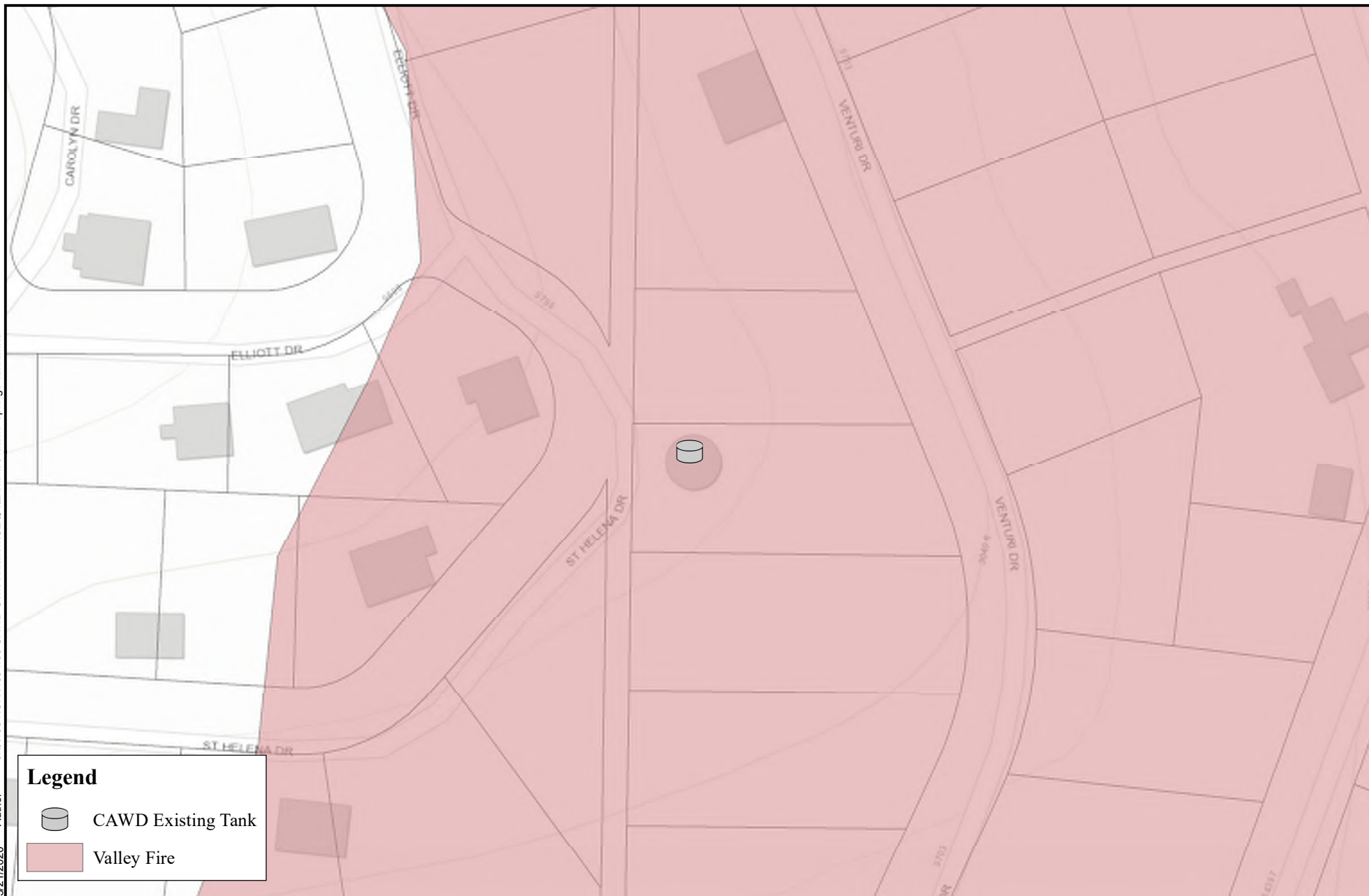




FIGURE 5
ADAMS SPRINGS
DISTRIBUTION IMPROVEMENTS

CAWD
MAY 2020



Legend

-  CAWD Existing Tank
-  Valley Fire

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

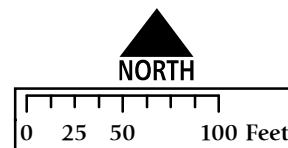


FIGURE 6
ADAMS SPRINGS
TANK REHABILITATION

CAWD
MAY 2020

ALPINE MEADOWS DISTRIBUTION IMPROVEMENTS

The existing Alpine Meadows distribution system consists of 4-inch and smaller PVC pipe patched together with HDPE. The system appears to be in a state of disrepair and would not support fire flows. Due to the poor condition of the Alpine Meadows system, it is recommended that Alpine Meadows be connected to the Starview system via a physical connection. Starview has sufficient source and storage capacity to serve Alpine Meadows, minus source redundancy.

Approximately 5,000 feet of new 6-inch water main will be constructed within existing roadways to interconnect the Alpine Meadows area to the Starview area. Disturbed water services will be transferred to the new main. A pressure reducing valve station will be installed to moderate pressure in the distribution system. The project will disturb between 13,000 and 19,000 square feet (0.30 to 0.44 acre). The Alpine Meadows Distribution Improvements are shown on Figure 7.

The Alpine Meadows Distribution project shown on Figure 7 represents the proposed project where access was allowed for biological and cultural resources investigation. Should additional area inside of the service area be permitted for investigation and the service area residents and CAWD determine upgrading the service area interior water main network is desirable, the CAWD may include those additional water mains in the Alpine Meadows project. The addition of those mains would require on-site surveys for biological and cultural resources as well as either an Addendum to this CEQA document or preparation of a Subsequent Mitigated Negative Declaration.

MOUNT HANNAH DISTRIBUTION IMPROVEMENTS

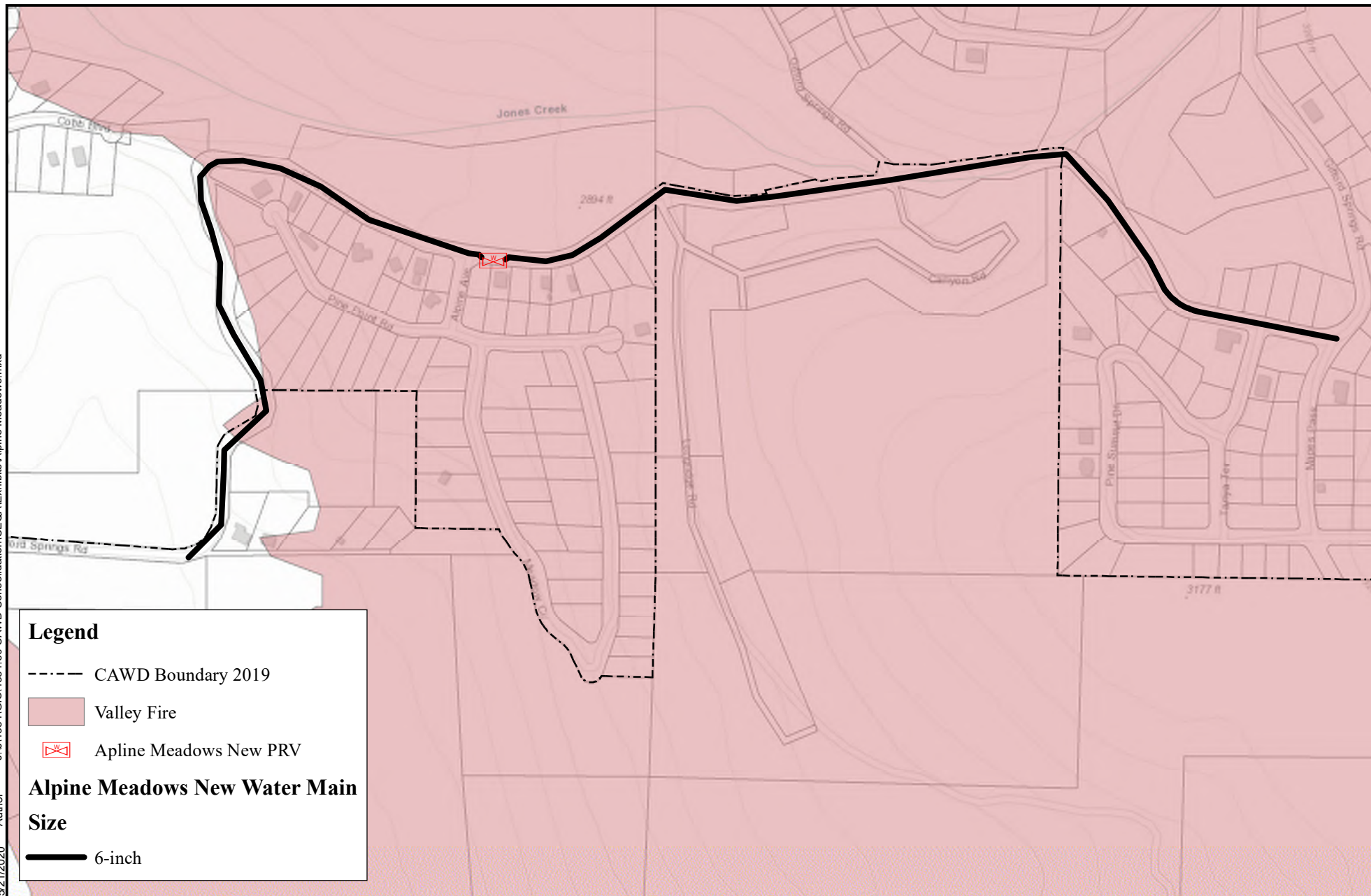
The existing distribution system is constructed primarily of dip and wrap steel pipe. The pipe is relatively thin; therefore, leaks develop quickly in this pipe material once corrosion begins. The number and severity of leaks on record led to the conclusion that the distribution system has reached the end of its useful life. In addition to water loss, leaks can result in damage to property and can increase well pump runtime, resulting in higher power and treatment costs. Distribution piping within the system also does not follow the roadways so access for repairs is often difficult. Recently, a small section of the system was replaced with PVC piping.

With the exception of the recently installed PVC pipe, the distribution system will be completely replaced with mains and services sized to deliver fire flows and serve residential sprinkler systems. Existing mains will be replaced with 2- and 6-inch water mains. Disturbed water services will be transferred to the new mains. Approximately 4,900 linear feet of mains will be constructed within existing roadways except a portion along Highway 175 that will be constructed near the easterly road shoulder. The project will disturb approximately 15,000 square feet (0.35 acre). The Mount Hannah Distribution Improvements are shown on Figure 8.

PINE VIEW HEIGHTS DISTRIBUTION IMPROVEMENTS

Pine View Heights suffers from the same leakage and undersized mains as the Adams Springs area. The area of Quail Drive, Dove Drive, Grouse Drive, Entrance Road, Highway 175, and Evergreen Road has excessive leaks, inaccessible mains, and mains that are undersized for fire protection flows.

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5/21/2020 Author



Legend

----- CAWD Boundary 2019

Valley Fire

Alpine Meadows New PRV

Alpine Meadows New Water Main

Size

6-inch

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

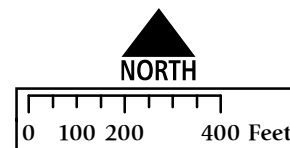






FIGURE 7
ALPINE MEADOWS
DISTRIBUTION IMPROVEMENTS

CAWD
MAY 2020

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5/21/2020 Author



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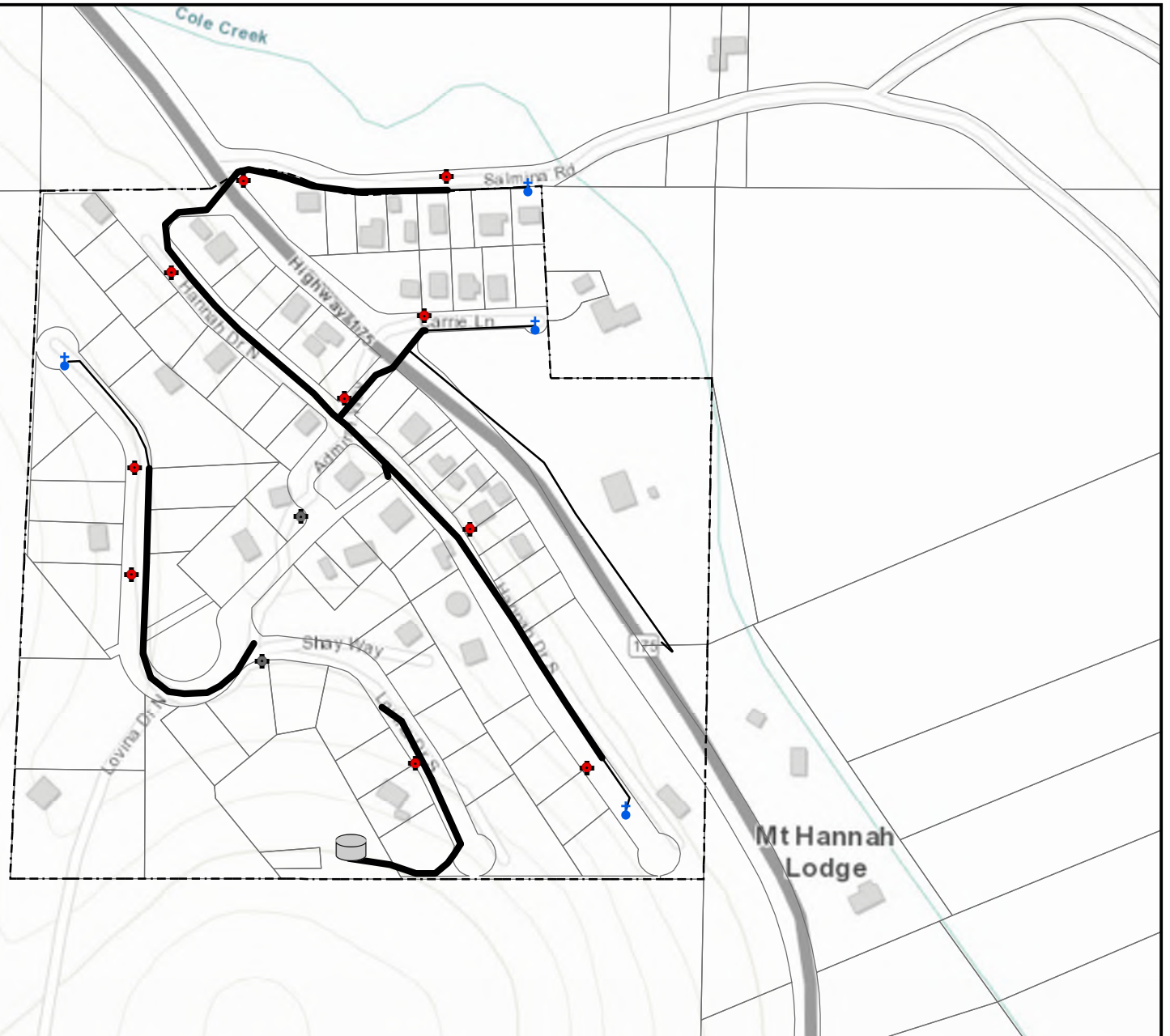
-  Mt Hannah Existing Hydrant
-  Mt Hannah Existing Tank
-  Mt Hannah New Blow Off
-  Mt Hannah New Hydrant

----- CAWD Boundary 2019

Mt Hannah New Water Main

Size

-  2-inch
-  6-inch



Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 75 150 300 Feet

FIGURE 8
MOUNT HANNAH
DISTRIBUTION IMPROVEMENTS

CAWD
MAY 2020

Existing mains will be replaced with 2- and 6-inch water mains. Approximately 5,100 linear feet of main will be constructed within existing roadways except a portion along Highway 175 that would be constructed near the easterly road shoulder to replace the portion of the existing main that is inaccessible. New fire hydrants would be installed. The project would disturb approximately 23,000 square feet (0.53 acre). The Pine View Heights Distribution Improvements are shown on Figure 9.

SCHWARTZ TANK REHABILITATION

The Schwartz tank was rehabilitated in 2014. The tank has two uncoated access panels and several seeps at joints that have continued since the inside of the tank was last rehabilitated. There are also several areas on the exterior coating that require paint touch up. All piping is rigidly connected to the tank above ground. Installing flexible connections to the tank will bring it up to current tank design standards and allow the tank to better withstand the effects of a seismic event. The foundation is a gravel pad. While the tank does not meet current seismic requirements due to changes in the building code, it should remain serviceable for many more years with modest investment in the absence of a significant seismic event.

The interior and exterior coatings will be assessed and potentially replaced. Existing rigid connections will be replaced with flexible connections to resist seismic forces. The Schwartz Tank Rehabilitation site is shown on Figure 10.

PHASING

As indicated above, the six Phase 1 projects are planned to proceed before Phase 2 projects. It is anticipated that two Phase 1 projects would be contained in each application for construction funding. One or two of the projects may be constructed each construction season depending on funding and CAWD resources to manage the construction projects. Mount Hannah and Pine View Heights distribution systems are the CAWD's top priorities followed by the tank improvements. The other Phase 1 projects would follow. Phase II projects will be subject to a subsequent CEQA assessment. As indicated above, the Alpine Meadows Distribution project may be expanded to include interior service area water main replacements. Such expansion would require additional CEQA review.

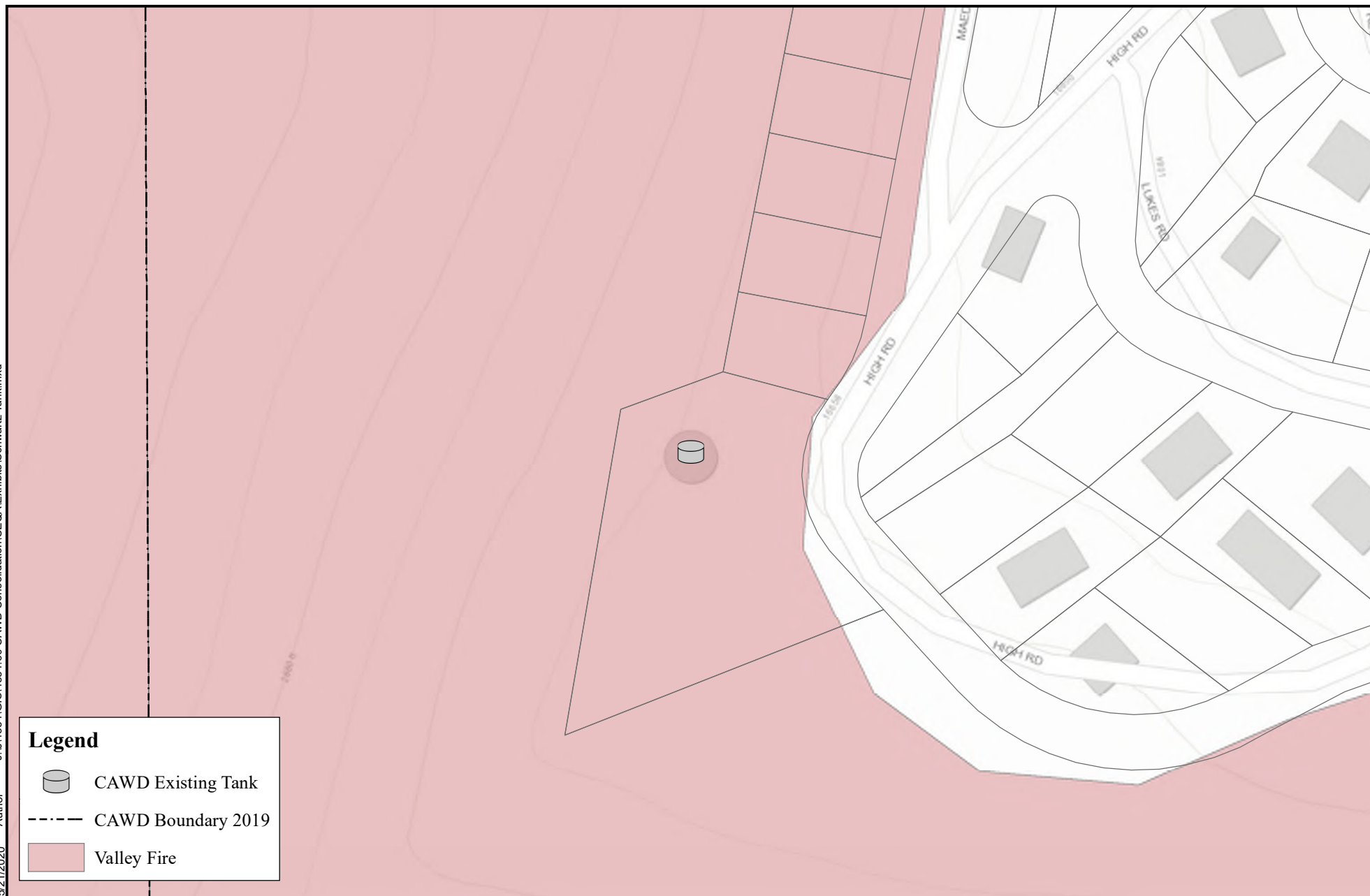
PROJECT CONSTRUCTION

It is anticipated that the majority of the construction will include eight-person crew(s) working weekdays. Equipment is anticipated to include: an excavator, a loader, a dump truck, a skip loader, an air compressor, a transport truck, an earth compactor, a pavement grinder, a paving machine, a directional drill rig, a vacuum trailer, and a generator. Operations and material stockpiling will be constrained to paved areas. Each Phase I project would include an erosion control plan to be prepared by the contractor that would be consistent with the Construction General Permit but not subject to reporting requirements. Additional project construction information is provided below.






FIGURE 9
PINE VIEW HEIGHTS
DISTRIBUTION IMPROVEMENTS

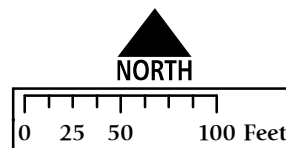
CAWD
MAY 2020



Legend

-  CAWD Existing Tank
-  CAWD Boundary 2019
-  Valley Fire

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US



**FIGURE 10
SCHWARTZ
TANK REHABILITATION**

CAWD
MAY 2020

Pipeline Installation

In most areas, the pipeline would be installed using open cut trenching. It is anticipated that the pipeline would be installed within existing paved roadways and/or on road shoulders. Pipeline construction rates are expected to exceed 150 feet per day for each crew that is installing pipeline.

Construction equipment will generally be limited in size due to roadway widths in the project area. It is expected that each pipeline crew would utilize an excavator (midi or small standard size excavator), compaction equipment and loader and be supported by two axle, six-yard dump trucks or three axle, ten-yard dump trucks for handling spoils and supplying backfill materials. A large hoe-ram may be needed to complete the excavation where large boulders are encountered. The trench depths will be generally be 42 inches deep and trench widths will vary from a minimum of 12 inches and likely no wider than 24 inches. It is anticipated that 30 to 60 cubic yards of material per pipeline crew would be exported from trenches per day and the same amount of material would be imported per day for backfill resulting in approximately 12 truck trips per day associated with trenching for each crew.

Where the pipeline would cross a culvert, the pipeline will be installed above it where possible or below it. Where the pipeline crosses a culvert the culvert itself would not be modified. It is anticipated that the some of the culverts may be failing (rusted through) and will need to be repaired as part of the project. The repair would consist of reinforcement of the culvert in the area of the trench and backfilling the trench with concrete slurry at the culvert. There will be no impact to the downstream area under either circumstance. Where the pipeline would cross under a culvert the trench depth could reach six feet deep and may exceed that depth if the culvert is large. Trenches deeper than five feet will require the use of shoring to support the trench walls.

If shallow groundwater were to be encountered during construction activities, dewatering activities would be required. In the event that groundwater encountered during pipeline construction could not be contained on site or could not be pumped into tank trucks and transported to a disposal facility, the groundwater could be discharged to a surface water body. This would require obtaining a General Order for Dewatering and Other Low Threat Discharges to Surface Water Permit (National Pollutant Discharge Elimination System (NPDES) # CA0083356 from the Central Valley Regional Water Quality Control Board (CVRWQCB).

Trench Backfill

Trench backfilling would begin immediately after the pipe was installed in the trenches. Appropriate backfill materials will be used to prevent damage to the pipelines and allow adequate backfill compaction using appropriate equipment. Imported backfill would be delivered to stockpiles near the open trenching. During construction, vertical wall trenches would be temporarily closed at the end of each work day, either by covering with steel trench plates, using backfill material, or installing barricades to restrict access, depending on the conditions of the encroachment permits from Caltrans and the County. Once backfilling is complete, surfacing restoration would be completed.

Surface Restoration

Typical surface restoration within paved roadways would include compacting 12 inches of Class 2 aggregate and installing a pavement patch that extends 12 inches beyond each side of the trench over its entire length after backfilling and compaction are complete. The surface restoration crew would typically use a grinder, a skip loader, a roller, and a paving machine. It is anticipated that the paving would produce approximately two trucks of off-haul and require three trucks of asphalt per day.

Services, Hydrants, and Combination Air Valves

It is anticipated that services, hydrants, and combination air valves would be installed in a similar manner to the pipeline. The service meter boxes, hydrants, and air valves are required to be outside the paved roadway resulting in disturbed areas in native areas. Each native area to be disturbed will be reviewed by a biologist for special status plants prior to construction. Crew size for service, hydrant, and air valve installation may be three to four people. Each service and air valve location is expected to produce a small volume of spoils (less than one cubic yard) to off haul and a similar volume of backfill material will need to be imported. The service and air valve installations will generate four total truck trips per day, two for spoils off-haul and two for imported backfill. It is anticipated that, on average, each hydrant installation will generate about one truck load of spoils and require one truck trip of imported backfill. The hydrant installation crew should install two hydrants a day resulting in four total truck trips per day.

Pressure Reducing Valve Stations

Pressure reducing valve stations will require excavation, placement of vault, and piping. Crew size will be compatible with the services crew, with three to four people for excavation and two to three people for piping. Each pressure reducing valve station will generate about six truck trips, with more material being exported than imported. The valve station should be installed in two to four weeks.

Tank Improvements

All tank sites will require piping modifications and some coating rehabilitation. Equipment to be used will include an air compressor, a sandblaster, a pressure washer, an excavator, a loader, a dump truck, an earth compactor, a pavement grinder, and a roller. Crew sizes will vary from three to six people, depending on the work. Tank improvements duration will vary from two to 12 weeks at each site.

Stream Crossings

There are several locations where pipelines will require stream crossings. Where feasible, pipelines will be installed over existing culverts and will not impact the existing streams or culverts. Alternately, pipelines could be installed under existing culverts where there is insufficient cover above the existing culvert. Where this is not feasible, pipelines would be installed below streams using trenchless technology (directional drilling, bore and jack, etc.). No stream crossings that do not utilize existing culverts (and do not impact the stream or culvert) would occur without consultation and approval by the appropriate regulatory agencies.

Schedule

Projects contained in Phase 1 will occur over several years, dependent on funding and the CAWD's ability to manage multiple projects. Grading during the rainy season would be limited by the project's erosion control plan but construction within stabilized areas may occur during the rainy season. The anticipated schedule for each Phase 1 project follows, listed by priority.

Mount Hannah Distribution System, 2021

It is anticipated that the construction would last approximately six months. It is assumed that there would be two crews working on different parts of the project.

Pine View Heights Distribution System, 2021

It is anticipated that the construction would last approximately five months. It is assumed that there would be two crews working on different parts of the project.

Alpine Meadows Distribution System, 2022

It is anticipated that the construction would last approximately six months. It is assumed that there would be two crews working on different parts of the project.

Tank Rehabilitations, 2023

It is anticipated that the construction would last approximately four months for both tank rehabilitations. It is assumed that there would be two crews working on different parts of the project.

Adams Springs Distribution System, 2023

It is anticipated that the construction would last approximately five months. It is assumed that there would be two crews working on different parts of the project.

GROWTH INDUCEMENT POTENTIAL

The proposed project does not induce growth. The CAWD is already obligated to provide water service to parcels within its service area and the project does not expand the service area. The project provides infrastructure improvements to existing water systems to meet current regulatory standards. Any growth within the water service areas would be according to relevant General Plan and zoning designations currently planned for by the County

OTHER PUBLIC AGENCY APPROVALS

The project is under CAWD review authority. The project may require additional permitting approvals from the following agencies:

County of Lake

All work within the County of Lake right of way would require encroachment permits.

Central Valley Regional Water Quality Control Board

CVRWQCB has discretionary authority regarding the following permits and approvals:

- NPDES permit. The U.S. Environmental Protection Agency (EPA) has delegated responsibility for issuance of Clean Water Act (CWA) NPDES permits to the Regional Water Quality Control Boards within California. These permits are required to ensure protection of surface waters from construction and other land-disturbing activity.
- 401 Water Quality Certification. If impacts to wetlands occur, a 401 Water Quality Certification would be required.

State of California Water Resources Control Board, Division of Drinking Water (DDW)

DDW may require an amendment to the existing domestic water supply permits to recognize the interties.

U.S. Fish and Wildlife Service (FWS) and the California Department of Fish and Wildlife (CDFW)

Consultation is required with these agencies if a project has the potential to take or otherwise harm federally listed or state-protected wildlife and plant species. Portions of the project that would occur within streams or associated riparian habitat would require a streambed alteration agreement from CDFW.

US Army Corps of Engineers (USACE)

A USACE permit would be required for the project if it results in fill of wetlands or impacts streams below ordinary high water.

Caltrans

Any work within Highway 175 would require an encroachment permit from Caltrans. Any work within the right of way would be subject to Caltrans permit requirements.

ENVIRONMENTAL SIGNIFICANCE CHECKLIST:

The following list of questions is provided by Appendix G of the CEQA Guidelines, in order to determine a project's environmental impacts. The checklist utilized herein was significantly updated by the State of California in 2019.

Based on the project description, answers to the questions fall into one of four categories:

- Potentially Significant Impact
- Less Than Significant Impact with Mitigation Incorporation
- Less Than Significant Impact
- No Impact

With regard to the checklist, a “No Impact” response indicates that no impact would result from implementation of the project. A “Less Than Significant Impact” response indicates that an impact would occur, but the level of impact would be less than significant. A “Less Than Significant with Mitigation Incorporation” response indicates that an impact is involved, and, with implementation of the identified mitigation measure, such impact would be less than significant. A “Potentially Significant Impact” response indicates that there is substantial evidence that impacts may be significant if mitigation measures are unknown, infeasible, or not proposed. Each response is discussed at a level of detail commensurate with the potential for adverse environmental effect.

The discussion following each checklist item consists of an *Analysis* section, a *Cumulative Impacts* discussion, and a section for identification of *Mitigation Measures*, as necessary. The *Analysis* section includes a discussion addressing whether the project would result in potential adverse environmental impacts. All potential impacts have been considered, including on-site and off-site impacts, direct and indirect impacts, construction and operation-related effects, as well as cumulative effects. The recently updated 2019 CEQA Guidelines contain revised regulations relative to the project's potential for contributing to cumulative effects⁵. The *Cumulative Impacts* section presents information regarding the project's potential cumulative impacts and is included in this section. If an impact(s) has been identified and mitigation is identified to reduce the impact to a less than significant level, then such measures are contained in the *Mitigation Measures* sections.

⁵ California Environmental Quality Act Guidelines, §15064(i).

I AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Environmental Setting

The project is primarily located in an unincorporated rural community of Cobb Mountain in southwest Lake County, California. Portions of the CAWD extend to the north of Cobb Mountain along Highway 175. The terrain consists of gently sloping hills and steep ridges with small intermittent valleys. The project area is rural in nature and residential development is generally clustered within the water service areas. The major sources of light and glare in the project vicinity are from residential development and State Highway 175 vehicular traffic. Although there are potentially eligible state designated scenic highways in Lake County, Highway 175 is not designated as eligible. There are no other designated scenic highways in the project area. The project area was significantly burned by the Valley Fire and much of the project area has the visual character of a community recovering from disaster.

Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. Although the project area is not considered to be a scenic vista for the purposes of this environmental analysis, the site does have characteristics that most people would consider aesthetically pleasing and a positive visual resource. Most of the project locations are surrounded by rural residential development and occur in existing roadways or easements.

The proposed project would not result in the disturbance or elimination of open space areas or remove an object of aesthetic value. The project would not result in long-term physical adverse changes to the height or bulk of structures or view blockages within the view shed of the project area or along State Highway 175. The project involves below-ground water distribution pipelines that will not be visible once construction is complete and refurbishment of existing tanks. Therefore, obstruction of scenic views will be avoided.

Construction activities would create dust, expose soil from grading, and create soil piles from trenching and excavation but would cease after construction is complete. Short-term construction impacts associated with the project would not have a significant impact on any scenic vista. The project would not result in long-term impacts since the replacement water mains would be below ground and tanks to be refurbished already exist.

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

The 1989 Cobb Area Plan identifies Highway 175 as having the potential to be a County-designated scenic roadway through the entire plan area, though it was never officially designated. The pipelines would be installed below grade where it interties with the existing water distribution system in Highway 175 and within existing road right-of-ways. Any visual impacts would be short term and limited to the construction phase of the proposed project. None of the tank sites proposed for rehabilitation would be visible from Highway 175. As such, the proposed project would not introduce features that would adversely affect the future use of Highway 175 as a scenic roadway and would have no impact.

c. In nonurbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project will not significantly degrade the existing visual character of the project area. Many structures and trees in the project vicinity were destroyed during the Valley Fire and the project area continues to have the visual character of a fire recovery area. The new and replacement pipelines would be underground and the ground surface would be restored upon completion of construction. Homes currently being rebuilt are in accordance to current zoning and building codes and any new homes served by the new pipelines would similarly be built consistent with zoning and building codes. The project does not substantially degrade the existing visual character of the project sites or project area.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project will not create a new substantial source of light or glare. Replacement mains and appurtenances will be constructed below grade with surfaces restored. No lighting is proposed by the project.

Cumulative Impacts

There are no adverse cumulative environmental impacts to aesthetic resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to aesthetic resources have been identified; therefore, no mitigation is required.

II AGRICULTURAL & FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
c. Would the project 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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
e. Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Environmental Setting

Land uses in the project area include rural residential uses, agriculture and various transportation corridors, including Highway 175. The Valley Fire burned large portions of the communities in and surrounding the CAWD. None of the land in the project area subject to disturbance by the project is currently in agricultural use, although some agricultural use occurs in the project vicinity. The project will occur almost entirely in existing roadways, on existing tank sites or otherwise disturbed areas.

Project area zoning includes the following designations (shown on Figures XI-1 and XI-2 in the Lane Use & Planning section):

Zoning Designation	Agricultural Uses Allowed
Agricultural Preserve District (APZ)	Yes
Agricultural District (A)	Yes
Timberland Preserve District (TPZ)	Limited
Rural Lands District (RL)	Yes
Rural Residential District (RR)	Yes
Suburban Reserve District (SR)	Yes
Single-Family Residential District (R1)	No
Planned Development Residential District (PDR)	Limited
Planned Development Commercial District (PDC)	No
Highway Commercial District (CH)	No
Resort Commercial District (CR)	No
Local Commercial District (C1)	No
Community Commercial District (C2)	No
Service Commercial District (C3)	No
Open Space District (O)	Yes

Regulatory Setting

FARMLAND MAPPING AND MONITORING PROGRAM

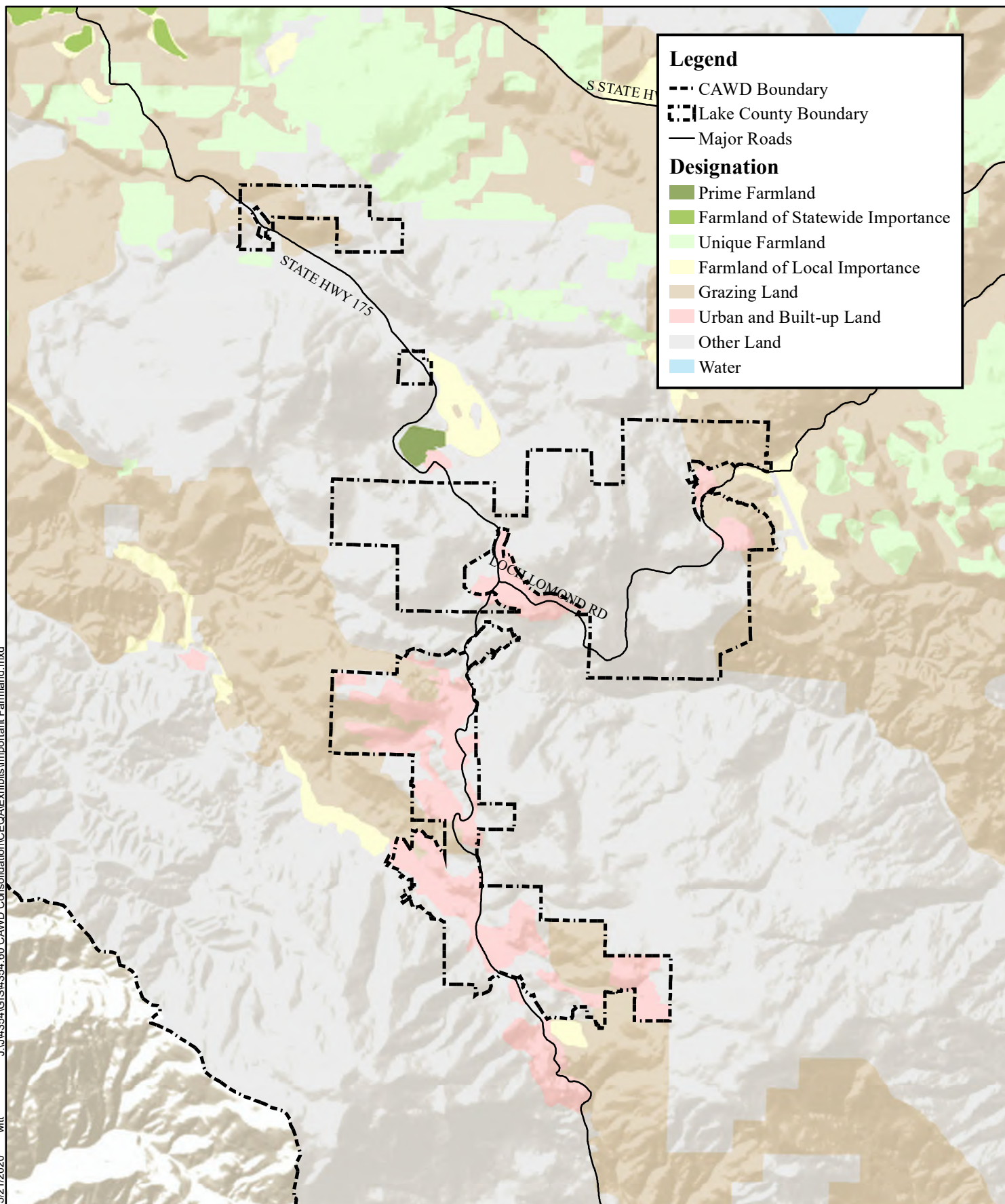
Agricultural lands within the state of California are rated according to soil quality and irrigation status by the Farmland Mapping and Monitoring Program (FMMP). The FMMP produces maps and statistical data used for analyzing impacts on California's agricultural resources. The best quality land is called Prime Farmland, followed by Unique Farmland, Farmland of Statewide Importance, and so on, in decreasing order of importance. The maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance.

The project area is primarily designated as Urban and Built-up Land and Other Land with minor areas of Grazing Land, as shown on Figure II-1.

WILLIAMSON ACT

Agricultural land in the project area may also be subject to the California Land Conservation Act of 1965, more commonly referred to as the Williamson Act. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are lower than normal because they are based on farming and open space uses as opposed to full market value. None of the project locations are under contract under the Williamson Act.

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Legend

- CAWD Boundary
- - - Lake County Boundary
- Major Roads

Designation

- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Farmland of Local Importance
- Grazing Land
- Urban and Built-up Land
- Other Land
- Water

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US
Data Source Information:
California Department of Conservation (2016)

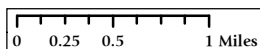


FIGURE II-1
IMPORTANT FARMLAND

CAWD
MAY 2020

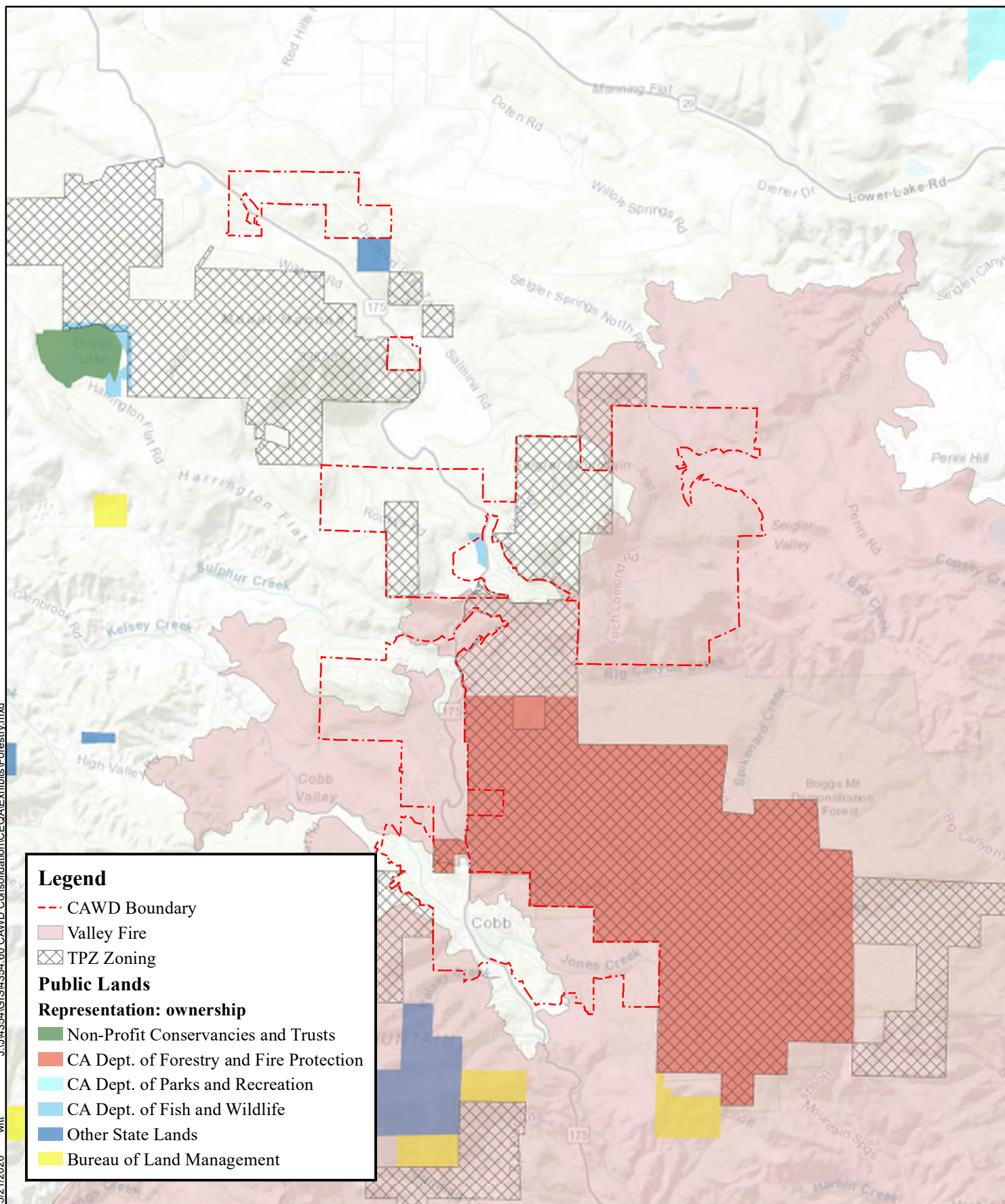
FOREST RESOURCES

The entire project area and its surroundings could generically be considered forest. The state defines Timberland, Timber Production Zones and Forest Land for use in local zoning code. The terms are defined as follows:

- Government Code, Title 5, Section 51104(f): “Timberland” means privately owned land, or land acquired for state forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre.
- Government Code, Title 5, Section 51104(g) “Timberland production zone” or “TPZ” means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h). With respect to the general plans of cities and counties, “timberland preserve zone” means “timberland production zone.”
- Public Resources Code, Division 10.5, Section 12220(g): “Forest land is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.”

As shown on Figure II-2, there are several public areas that could support Timberland and Forest Land. The County has also zoned a large portion of project area as TPZ, although very little of that area is within the CAWD service areas.

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Legend

--- CAWD Boundary

Valley Fire

TPZ Zoning

Public Lands

Representation: ownership

Non-Profit Conservancies and Trusts

CA Dept. of Forestry and Fire Protection

CA Dept. of Parks and Recreation

CA Dept. of Fish and Wildlife

Other State Lands

Bureau of Land Management

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Public Lands: CalFire (2017)

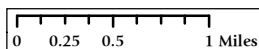


FIGURE II-2
FORESTRY RESOURCES

CAWD

MAY 2020

Analysis

- a. **Would the project 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?**

As shown on Figure II-1, the Farmland Mapping and Urban and Built-up Land and Other Land with minor areas of Grazing Land Urban. Project components would generally be located within developed roadways, roadway shoulders or already developed areas that do not support farmland. The project would not convert Farmland to non-agricultural uses.

- b. **Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

The project locations are in existing roadways, roadway shoulders or already developed with water infrastructure and are not located on any parcels with a Williamson Act contract not under Williamson Act contracts. While some of the zoning designations within the water service areas do allow agricultural uses, any existing agricultural use would not be impacted by implementation of the water system improvements.

- c. **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

Forest land, as defined by the U.S. Forest Service, includes land at least ten percent of which is stocked by trees of any size, or land formerly having had such tree cover that would be naturally or artificially regenerated. Forest land includes transition zones, such as areas between heavily forested and non-forested lands that are at least ten percent stocked with forest trees and forest areas adjacent to urban and built-up lands.

The project area meets the definition of forest land as most of the project area includes more than ten percent tree cover (although large areas were burned down in the Valley Fire). As shown on Figure II-2, large areas in the project vicinity are zoned TPZ. However, the project does not propose any activities related to timber harvest nor would it result in the conversion of forest land to non-forest uses. As such, there would be no impact to forest land or conversion of designated land to non-forest uses. All project areas are currently developed (or rebuilding) as rural residential.

- d. **Result in the loss of forest land or conversion of forest land to non-forest use?**

While the project area supports forestland, the project locations do not support forest land and would occur within existing roadways and easements of developed sites. The proposed project would not result in any impact to forest land.

- e. **Would the project 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?**

Because the project would be located primarily in existing roadways or public utility easements and in areas that do not currently support Farmland or forest land, the project would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

Cumulative Impacts

There are no adverse cumulative environmental impacts to agricultural and forestry resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to agricultural and forestry resources have been identified; therefore, no mitigation is required.

III AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations:	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
b. Would the project 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?	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>
c. Would the project expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>
d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Environmental Setting

The project is located within the Lake County Air Basin. The Lake County Air Quality Management District monitors and manages air quality in Lake County.

LAKE COUNTY AIR BASIN

The project area is located in the Lake County Air Basin (LCAB), which is contiguous with the boundaries of Lake County and the local air quality agency, the Lake County Air Quality Management District (LCAQMD). The LCAB is located within the northern Coast Ranges of California. This mountain system consists of long, parallel ridges which trend from the south to the north. In Lake County, the mountain pattern is conspicuously interrupted by the Clear Lake Basin. Clear Lake occupies this basin in approximately the middle one-third of the county. The northern third of the county is largely unoccupied, much of it lying within the Mendocino National Forest. Mountains are also predominant in the southern one-third of Lake County. The topography ranges from a low of approximately 1,100 feet in elevation to over 7,000 feet at the peaks of the surrounding coastal range.

REGIONAL CLIMATE AND METEOROLOGY

Lake County climate, like much of California, is Mediterranean in nature. Summers are warm and dry, and winters are cool and moist. Much local variation is standard in Lake County, reflective of its mountainous character. Lake County is near the edge of a more transitional climatic zone, which is influenced more by the Pacific Ocean. Its proximity to the oceanic influence, elevation, and mountainous influence combine to create a local climate that is somewhat more severe than many other parts of California. Rainfall predominantly occurs during the months of November through March. The normal historic rainfall average is approximately 31 inches annually. Winds are generally light due to the sheltering effect of surrounding mountains, with predominant winds from the northwest, particularly in the summer months. Wind during the

winter months tends to be more variable in direction. Average predominant wind speeds throughout the year are typically less than five miles per hour.

Regulatory Setting

Air quality in the project vicinity is regulated by several jurisdictions, including EPA, ARB, and LCAQMD. These entities, described below, develop rules, regulations, and policies to attain the goals or directives imposed upon them through legislation.

FEDERAL REGULATIONS

The Clean Air Act

The Federal Clean Air Act (FCAA) required the US EPA to establish National Ambient Air Quality Standards (NAAQS) and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The US EPA has responsibility to review all state SIPs to determine conformance to the mandates of the CAA, and the amendments thereof, and determine if implementation would achieve air quality goals. If the US EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area that imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

Federal Conformity Requirements

The CAA Amendments of 1990 require that all federally funded projects come from a plan or program that conforms to the appropriate State Implementation Plan (SIP). Federal actions are subject to either the Transportation Conformity Rule (40 Code of Federal Regulations [CFR] 51[T]), which applies to federal highway or transit projects, or the General Conformity Rule (40 CFR 51[W]), which applies to all other federal actions.

STATE REGULATIONS

California Clean Air Act

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act of 1988. The California Clean Air Act (CCAA) requires that all air districts in the state endeavor to achieve and maintain California Ambient Air Quality Standards (CAAQS) for ozone, CO, sulfur dioxide (SO₂), and nitrogen dioxide (NO₂) by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors, or (2) provide for implementation of all feasible measures to

reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

LOCAL REGULATIONS

Lake County Air Quality Management District (LCAQMD)

The LCAQMD is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. The LCAQMD is a regional agency created by the state that regulates stationary sources of air pollution within the LCAB. The District also regulates open burning and is delegated a variety of other programs such as state Air Toxic Control Measures (ATCMs) and federal New Source Performance Standards (NSPSs). The main purpose of the LCAQMD is to enforce local, state, and federal air quality laws, rules, and regulations in order to maintain the ambient air quality standards (AAQSs) and protect the public from air toxics through local, CARB ATCM, and federal EPA NESHAP specific control regulations. Because the county is an attainment area (or is unclassified) for all criteria pollutants, both federal and state, it is not required to prepare air quality attainment/management plans.

CRITERIA POLLUTANTS

Pollutants subject to federal ambient standards are referred to as “criteria” pollutants because the United States Environmental Protection Agency (US EPA) publishes criteria documents to justify the choice of standards. The federal and California ambient air quality standards are defined below for criteria pollutants. The federal and state ambient standards were developed independently with differing purposes and methods, although both federal and state standards are intended to avoid health related effects.

Federal

- Nonattainment: any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.
- Attainment: any area (other than an area identified in clause (i)) that meets the national primary or secondary ambient air quality standard for the pollutant.
- Unclassifiable: any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

State

- Unclassified: a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- Attainment: a pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a three-year period.
- Nonattainment: a pollutant is designated nonattainment if there was at least one violation of a State standard for that pollutant in the area.
- Nonattainment / Transitional: is a subcategory of the nonattainment designation. An area is designated nonattainment / transitional to signify that the area is close to attaining the standard for that pollutant.

Current California and Federal standards for certain types of pollutants are shown below.

Pollutant	Averaging Time	State Standard	Federal Primary Standard
Ozone	1-Hour	0.09 ppm	--
	8-Hour	0.07 ppm	0.070 ppm
PM10	Annual	20 ug/m ³	--
	24-Hour	50 ug/m ³	150 ug/m ³
PM2.5	Annual	12 ug/m ³	12 ug/m ³
	24-Hour	---	35 ug/m ³
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	20.0 ppm	35.0 ppm
Nitrogen Dioxide	Annual	0.03 ppm	.053 ppm
	1-Hour	0.18 ppm	100 ppb
Sulfur Dioxide	24-Hour	0.04 ppm	.14ppm
	3-Hour	--	--
	1-Hour	0.25 ppm	75 ppb
Lead	30-Day Avg.	1.5 ug/m ³	--
	Calendar Quarter	--	1.5 ug/m ³
	3-Month Avg.	--	0.15 ug/m ³

ppm = parts per million

ppb = parts per billion

ug/m³ = Micrograms per Cubic Meter

MONITORING STATION DATA

Ambient air quality measurements are routinely conducted at nearby air quality monitoring stations. LCAQMD maintains four monitoring stations and is designated as attainment or unclassified for all state and federal standards. Because the county is an attainment area (or is unclassified) for all criteria pollutants it is not required to prepare air quality attainment/management plans.

Both the California Air Resources Board (CARB) and the US EPA use this type of monitoring data to designate areas according to attainment status for criteria air pollutants established by the agencies. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvements. The three basic designation categories are nonattainment, attainment, and unclassified, as defined above.

The LCAB is currently designated either attainment or unclassified/attainment for all state and national ambient air quality standards. For this reason, the LCAQMD has not been required to prepare ambient air quality attainment plans for the basin (CARB, 2017).

Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The project is located within the LCAQMD. The LCAQMD is designated to be in attainment or unclassified for all federal and state constituents (see b., below). The LCAQMD does not have an applicable air quality plan as air quality meets attainment standards. Because the project would not result in population growth or long-term emissions, the project would not impact air quality plans.

b. Would the project 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?

The LCAQMD is responsible for monitoring and reporting air quality data for the Lake County air basin. Both the U. S. Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels that avoid specific adverse health effects associated with each pollutant, termed criteria pollutants.

As shown in the table below, the LCAQMD is designated to be in attainment or unclassified for all federal constituents and in attainment or unclassified for all state constituents. The LCAQMD does not have any management plans as air quality meets attainment standards.

Standard	2017 State Status ⁶	2017 Federal Status
Ozone 8-Hour	Attainment	Unclassified/Attainment
Ozone 1-Hour	Attainment	N/A
PM2.5	Attainment	Unclassified/Attainment
PM10	Attainment	Unclassified
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	N/A
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Attainment	N/A
Visibility Reducing Particles	Attainment	N/A

The LCAQMD has not adopted its own thresholds of significance for project emissions. For air quality impacts, the Bay Area Air Quality Management District (BAAQMD) provides useful guidance in assessing project impacts on attainment status. The BAAQMD's 2017 Air Quality Guidelines⁷ establish recommended thresholds of significance for criteria pollutants for project construction and operation for CEQA analysis. The Air Quality Guidelines do not provide screening levels for this type of project so it is necessary to conduct an analysis using the Road Construction Emissions Model (RoadMod), Version 8.1.0, per Air Quality Guidelines recommendations for linear pipeline projects.

The BAAQMD's thresholds are presented below with a comparison to modeled project construction-related emissions generated utilizing the RoadMod model. Emissions shown below assume non mitigated emissions with up to two Phase 1 projects per year with an approximately five month concurrent construction period. The model was based on construction parameters associated with the Pine View Heights project, the worst-case project with regard to construction-related emissions based on its scale.

⁶ <http://www.arb.ca.gov/desig/adm/adm.htm>

⁷ *California Environmental Quality Act Air Quality Guidelines*. Bay Area Air Quality Management District. May 2017.

BAAQMD Thresholds of Significance		Project RoadMod Construction Emission Estimates (lb/day)	
Criteria Air Pollutants & Precursors	Construction-related Average Daily Emissions (lb/day)	Pine View Heights Only	Pine View Heights + Additional Distribution Project
Reactive Organic Gases (ROG)	54	1.57	3.14
Nitrous Oxides (NOx)	54	14.51	29.02
Particulate Matter (PM10)	82 (exhaust only)	0.91	1.82
Particulate Matter (PM2.5)	54 (exhaust only)	0.72	1.44

As shown in the table above, the worse-case project's (Pine View Heights) construction-related emissions are modeled to be considerably lower than the BAAQMD's thresholds of significance. Two Phase 1 distribution projects could be constructed at the same time. Using the Pine View Heights project's worst-case projections, doubling those emissions with a second distribution project in the same construction year, emissions are still considerably below BAAQMD thresholds.

Phase 2 projects construction-related emissions would be contained in a subsequent CEQA document but are anticipated to be similar. Based on the above, emissions associated with project construction are considered to be less than significant. Long-term project operational emissions associated with all phases of the project would be essentially unchanged due to the replacement and improvement nature of the project.

Construction activities associated with the project have the potential to create localized short-term dust impacts, PM10 and PM2.5. Mitigation Measure AQ1 includes feasible control measures and reduces such impacts to a less than significant level, as recommended by the BAAQMD's Basic Construction Mitigation Measures.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

As a water infrastructure improvement project for existing water systems, on-going operation of the water systems would not alter air quality in any appreciable way and would not expose sensitive receptors to substantial pollutant concentrations. During the construction phase of the project, generation of dust and equipment exhaust can be expected to increase. A portion of this dust would contain PM10 and PM2.5, which are criteria air pollutants regulated at both the federal and state levels. Diesel particulate matter would be emitted by construction equipment and trucks. Equipment operation and trucks also emit nitrogen oxides during construction that contribute to regional ozone levels.

Although demolition, grading and construction activities would be temporary, they would have the potential to cause both nuisance and health air quality impacts. PM10 is the pollutant of greatest concern associated with dust. If uncontrolled, PM10 levels downwind of actively disturbed areas could possibly exceed state standards. Construction activities in the project area could impact residents within and adjacent to the community. Based on the linear nature of the projects, construction in any one vicinity would only be for a short duration, limited to a few days. Despite the limited duration, implementation of BAAQMD Basic Construction Mitigation Measures contained in mitigation measure AQ1 will mitigate air quality impacts associated with exposing sensitive receptors to substantial pollutant concentrations to less than significant levels.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people??

The project would not create objectionable odors or other emissions. The project includes replacement water distribution pipelines and other water system infrastructure that are not associated with creation of odors.

Cumulative Impacts

There are no adverse cumulative environmental impacts to air quality resulting from implementation of the proposed project.

Mitigation Measures

AQ1

The following Feasible Control Measures, as described by the Bay Area Air Quality Management District, shall be implemented during construction to minimize fugitive dust and emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or be covered.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed or stabilized as soon as possible. Building slabs shall be poured as soon as possible after grading unless seeding or soil binders are used to stabilize the pad.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the CAWD regarding dust complaints. This person shall respond and take corrective action within 48 hours. The LCAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

IV BIOLOGICAL RESOURCES

Sol Ecology, Inc. prepared a biological resources report for the project. The purpose of the biological assessment is to review the project in sufficient detail to determine to what extent the proposed action may affect any endangered or threatened species or designated critical habitats and to gather information necessary to complete a review of potential biological resource impacts from development of the proposed project, under CEQA. The Sol Ecology report describes the results of the site survey and assessment of the project site for the presence of sensitive biological resources protected by local, state, and federal laws and regulations. Excerpts of the report are contained in this section⁸.

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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 (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Would the project 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Would the project 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

⁸ *Biological Resources Report, Cobb Mountain Water District System Improvements Project, Phase I, Lake County, CA.* SolEcology, Inc. May 1, 2020.

Overview

On December 17, 2019 and January 30, 2020, Sol Ecology, Inc. (Sol Ecology) performed a biological resources assessment and surveys of the Phase 1 projects. The report includes information necessary to complete a review of potential biological resource impacts from development of the proposed project under CEQA. This report was prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (ESA) 50 CFR 402; 16 U.S.C. 1536 (c) and follows the standards established in the National Environmental Policy Act (NEPA) guidance and ESA guidance provided by the United States Fish and Wildlife Service (USFWS). It describes the results of the site survey and assessment of the project sites for the presence of sensitive biological resources protected by local, state, and federal laws and regulations.

METHODS

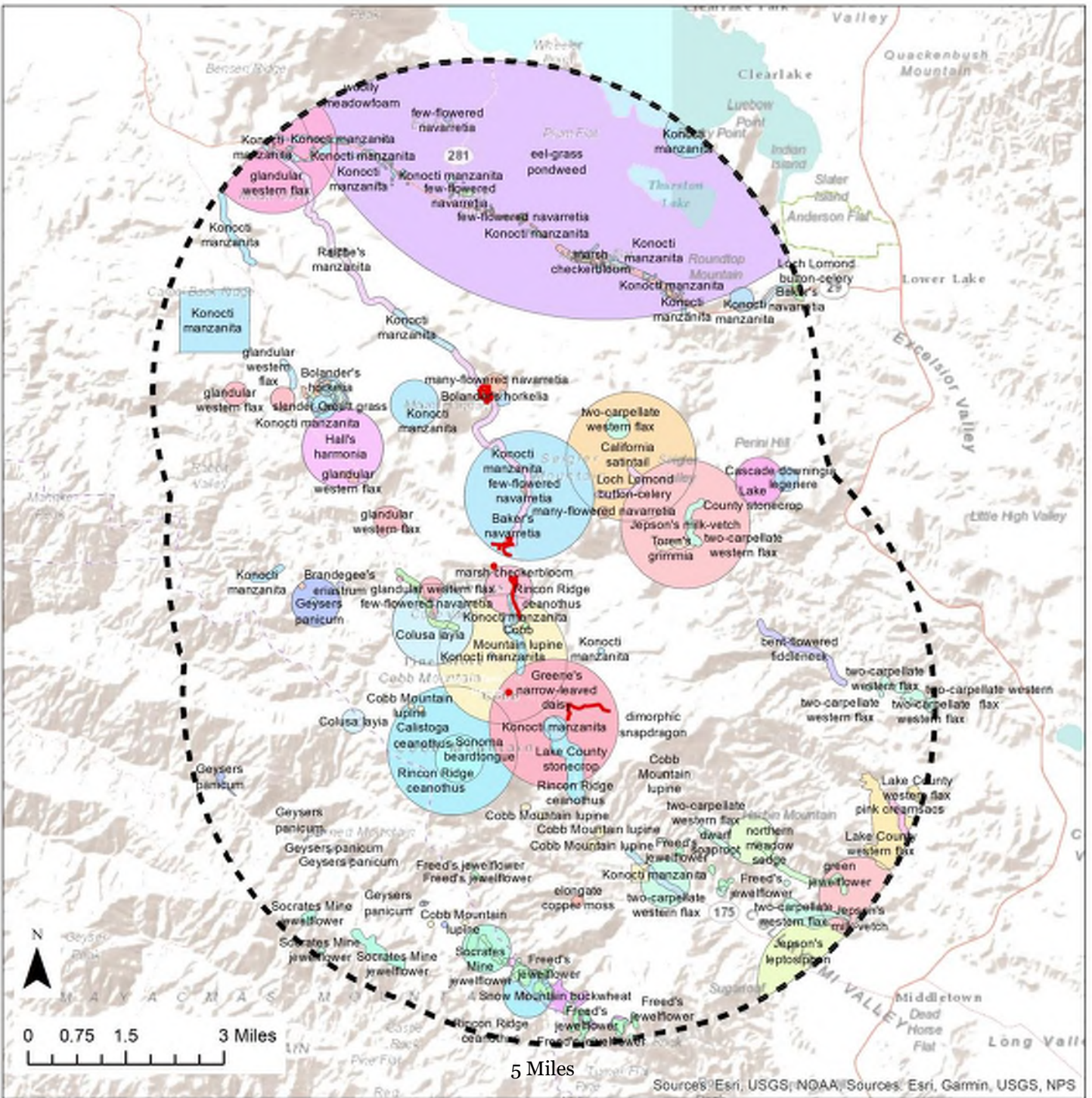
Literature Review

To evaluate whether special-status species or other sensitive biological resources (e.g., wetlands) could occur in the project area and vicinity, Sol Ecology biologists reviewed the following:

- California Native Plant Society's (CNPS's) Inventory of Rare and Endangered Plants of California search for U.S. Geological Survey (USGS) 7.5-minute Clearlake Highlands and Whispering Pines quadrangles and eight adjacent quadrangles (CNPS 2020a);
- California Natural Diversity Database (CNDDB) records search for USGS 7.5-minute Clearlake Highlands and Whispering Pines quadrangles and eight adjacent quadrangles (California Department of Fish and Wildlife [CDFW] 2020);
- U.S. Fish and Wildlife Service (USFWS) list of threatened and endangered species for the project Site (USFWS 2020a);
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990);
- CDFG publication California Bird Species of Special Concern (Shuford and Gardali 2008);
- CDFW and University of California Press publication California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016);
- USFWS National Wetlands Inventory, Wetlands Mapper (USFWS 2020b);
- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Web Soil Survey (USDA 2019).

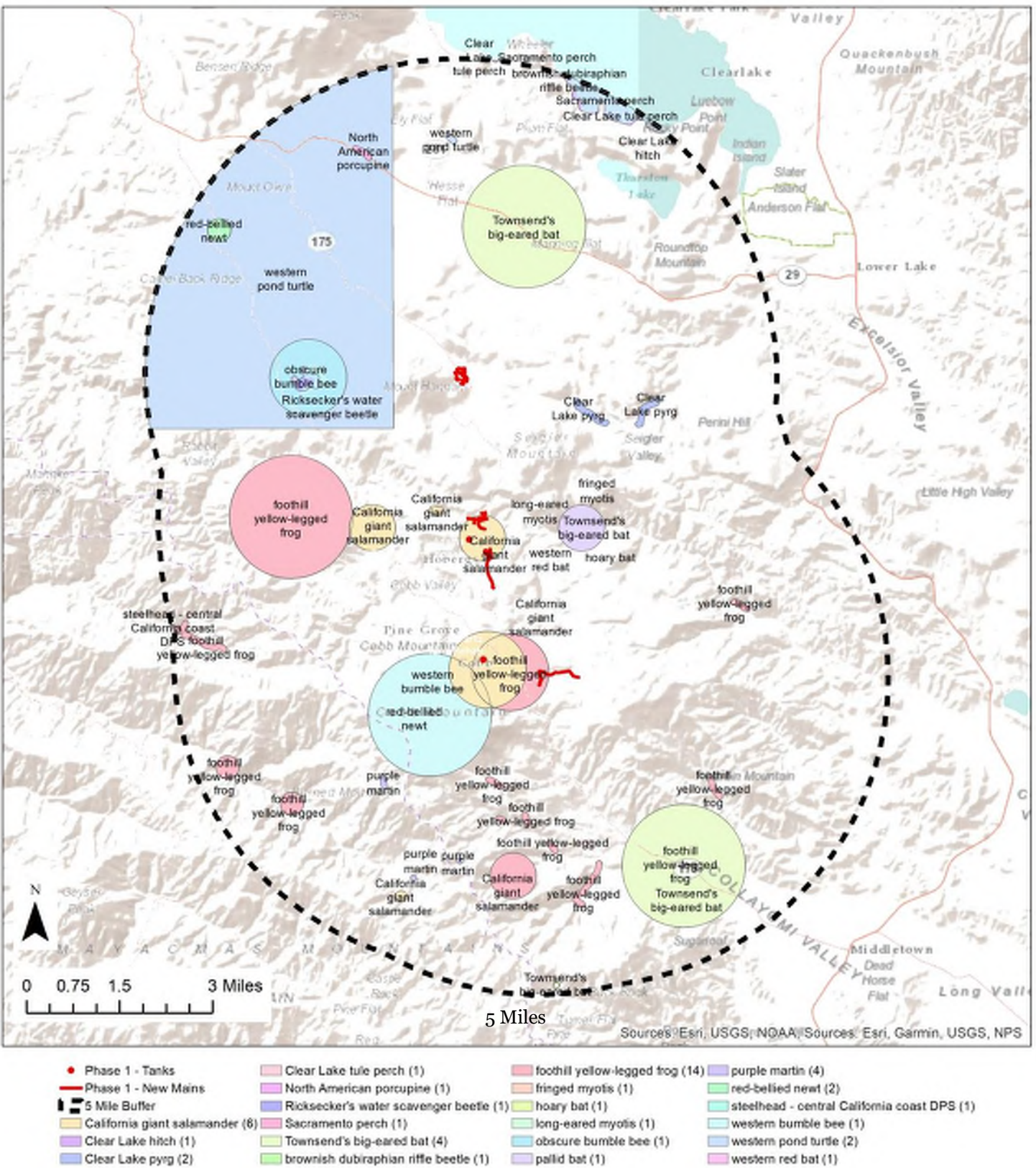
Based on information from the above sources, Sol Ecology developed lists of special-status species and natural communities of special concern that could be present in the project vicinity. Figures IV-1 presents special-status plant species and Figure IV-2 presents special-status animal species from the results of a 5-mile CNDDB record search around the project area. All biological resources were evaluated for their potential to occur within the project area.

Cobb Mountain Water District System Improvements Project, Lake County, CA



- | | | | | |
|-------------------------------|------------------------------------|----------------------------------|-------------------------------|------------------------------------|
| ● Phase 1 - Tanks | ■ Cascade downingia (1) | ■ Lake County stonecrop (4) | ■ dimorphic snapdragon (1) | ■ northern meadow sedge (1) |
| ● Phase 1 - New Mains | ■ Cobb Mountain lupine (8) | ■ Lake County western flax (2) | ■ dwarf soaproot (1) | ■ oval-leaved viburnum (1) |
| ■ 5 Mile Buffer | ■ Colusa layia (2) | ■ Loom Loamond button-celery (3) | ■ eel-grass pondweed (1) | ■ pink creamsacs (1) |
| ■ Baker's navaretia (3) | ■ Freed's jewelflower (5) | ■ Raiche's manzanita (1) | ■ elongate copper moss (1) | ■ slender Orcutt grass (1) |
| ■ Boggs Lake hedge-hyssop (3) | ■ Geysers panicum (5) | ■ Rincon Ridge ceanothus (4) | ■ few-flowered navaretia (5) | ■ three-fingered morning-glory (1) |
| ■ Bolander's horkelia (8) | ■ Greene's narrow-leaved daisy (1) | ■ Snow Mountain buckwheat (1) | ■ glandular western flax (6) | ■ two-carpellate western flax (7) |
| ■ Brandegee's eriastrium (2) | ■ Hall's harmonia (1) | ■ Socrates Mine jewelflower (4) | ■ green jewelflower (1) | ■ watershield (1) |
| ■ Burke's goldfields (2) | ■ Jepson's leptosiphon (1) | ■ Sonoma beardtongue (1) | ■ legene (2) | ■ woolly meadowfoam (1) |
| ■ California satintail (1) | ■ Jepson's milk-vetch (2) | ■ Toren's grimmia (1) | ■ many-flowered navaretia (5) | |
| ■ Calistoga ceanothus (3) | ■ Knott's manzanita (20) | ■ bent-flowered fiddleneck (1) | ■ marsh checkerbloom (4) | |

Figure IV-2 Special Status Animal Species within 5 Miles of the Project Sites
Cobb Mountain Water District System Improvements Project, Lake County, CA



Field Survey

Sol Ecology biologists conducted biological resources surveys on December 17, 2019 and January 30, 2020. Biologists walked through accessible portions of the project area identifying all plant and wildlife species encountered and mapping vegetation communities. Plant species were recorded and identified to a taxonomic level sufficient to determine rarity using the second edition of the *Jepson Manual* (Baldwin et al. 2012). Vegetation communities were identified using the online version of *A Manual of California Vegetation* (CNPS 2020b). Dispersal habitat, foraging habitat, refugia or estivation habitat, and breeding (or nesting habitat) were noted for wildlife species.

In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of Sol Ecology biologists with experience working with the species and habitats. If a special-status species was observed during the site visit, its presence is recorded and discussed. For some threatened and endangered species, a site survey at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies and additional surveys are included as mitigation measures.

Concurrently with the botanical and wildlife surveys, biologists identified wetland and non-wetland waters potentially subject to regulation by the federal government (U.S. Army Corps of Engineers [USACE]) and the state of California (Regional Water Quality Control Board [RWQCB] and CDFW). The delineation of wetland boundaries was based on the presence/absence of indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. The boundaries of non-wetland waters were identified by locating the ordinary high-water mark (OHWM).

EXISTING CONDITIONS AND GENERAL WILDLIFE USE

Elevations in the project area range from approximately 2,500 to 3,200 feet (750 – 1,000 meters). The project sites include twelve soil map units identified by the USDA, NRCS (USDA 2019):

- Bressa-Millsholm loams, 15 to 30 percent slopes: This soil is well drained and occurs in hills and backslopes. The Bressa series parent material is residuum weathered from sandstone. The Millsholm series parent material is residuum weathered from sandstone and shale.
- Collayomi-Aiken-Whispering complex, 5 to 30 percent slopes: This complex is well drained and occurs in mountains and backslopes. The Collayomi, Aiken, and Whispering series parent material is residuum weathered from andesite.
- Collayomi-Aiken-Whispering complex, 30 to 50 percent slopes: This complex is similar to Collayomi-Aiken-Whispering complex, 5 to 30 percent slopes including its geomorphic position and series parent material.
- Collayomi-Whispering complex, 30 to 50 percent slopes: This complex is similar to Collayomi-Aiken-Whispering complex, 5 to 30 percent slopes including its geomorphic position and series parent material.
- Maymen-Hopland-Mayacama complex, 9 to 30 percent slopes: This complex is well drained to somewhat excessively drained and occurs in mountains and backslopes. The Maymen and Hopland series parent material is residuum weathered from sandstone and shale. The Mayacama series parent material is residuum weathered from sandstone.
- Oxalis variant silt loam: This soil is poorly drained and occurs in alluvial flats and backslopes. The Oxalis series parent material is alluvium derived from volcanic rock.
- Speaker-Marpa-Sanhedrin gravelly loams, 30 to 50 percent slopes: This soil is well drained and occurs on mountains and backslopes. The Speaker series parent material is residuum weathered from

sandstone and shale. The Marpa and Sanhedrin series parent material is residuum weathered from sandstone.

- Speaker-Sanhedrin gravelly loams, 50 to 75 percent slopes: This soil is well drained and occurs in mountains and backslopes. The Speaker and Sanhedrin series parent material is the same as those listed above.
- Speaker-Sanhedrin-Maymen association, 30 to 50 percent slopes: This association is well drained and occurs in mountains, backslopes, ridges, summits, and shoulders. The Speaker, Maymen, and Sanhedrin series parent material is the same as those listed above.
- Speaker-Speaker variant-Sanhedrin association, 5 to 30 percent slopes: This association is well drained and occurs in ridges, backslopes, summits, and shoulders. Both Speaker series and Sanhedrin series parent material is residuum weathered from sandstone.
- Still gravelly loam: This soil is well drained and occurs in alluvial flats, backslopes, and depressions. The Still series parent material is alluvium derived from sandstone and shale.
- Whispering-Collayomi complex, 50 to 75 percent slopes: This complex is well drained and occurs in mountains and backslopes. The Whispering and Collayomi series parent material is the same as those above.

Communities Present

Vegetation communities present in the project area were classified using the online version of *A Manual of California Vegetation* (CNPS 2020b). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Vegetation communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations. Figures IV-3 through IV-5 show generalized mapped vegetation communities.

Non-Sensitive Natural Communities

Lower Montane Coniferous Forests

Lower montane coniferous forests are dominated by trees greater than 75 meters tall. This vegetation community occurs in uplands typically associated with raised stream benches, terraces, slopes, and ridges of all aspects. The canopy is mostly continuous with sparse shrub and herbaceous layers. Within the project area, lower montane coniferous forests include the Ponderosa pine (*Pinus ponderosa*) – Douglas-fir (*Pseudotsuga menziesii* var. *menziesii*) forest alliance [S4, G4] and Ponderosa pine forest alliance [S4, G5]. Other tree species noted in the canopy include California black oak (*Quercus kelloggii*), gray pine (*Pinus sabiniana*), incense cedar (*Calocedrus decurrens*), and Pacific madrone (*Arbutus menziesii*).

Burned

Vegetation communities that burned during wildfires were observed at the Adams Spring water tank and Adams Springs, Alpine Meadows, and Pineview Heights Area waterline distribution improvements. These areas were vegetated with lower montane coniferous forests prior to the wildfires. Current plant species composition is mostly non-native herbaceous species including bristly dogtail grass (*Cynosurus echinatus*), brome (*Bromus* sp.), oats (*Avena* sp.), nit grass (*Gastridium phleoides*), Spanish broom (*Spartium junceum*), woolly mullein (*Verbascum thapsus*), and yellow star-thistle (*Centaurea solstitialis*). Coyote brush (*Baccharis pilularis*) and manzanita (*Arctostaphylos* sp.) are native species noted within the burned areas.

Figure IV-3 Vegetation Communities (Mt. Hannah Area)
 Cobb Mountain Water District System Improvements Project, Lake County, CA

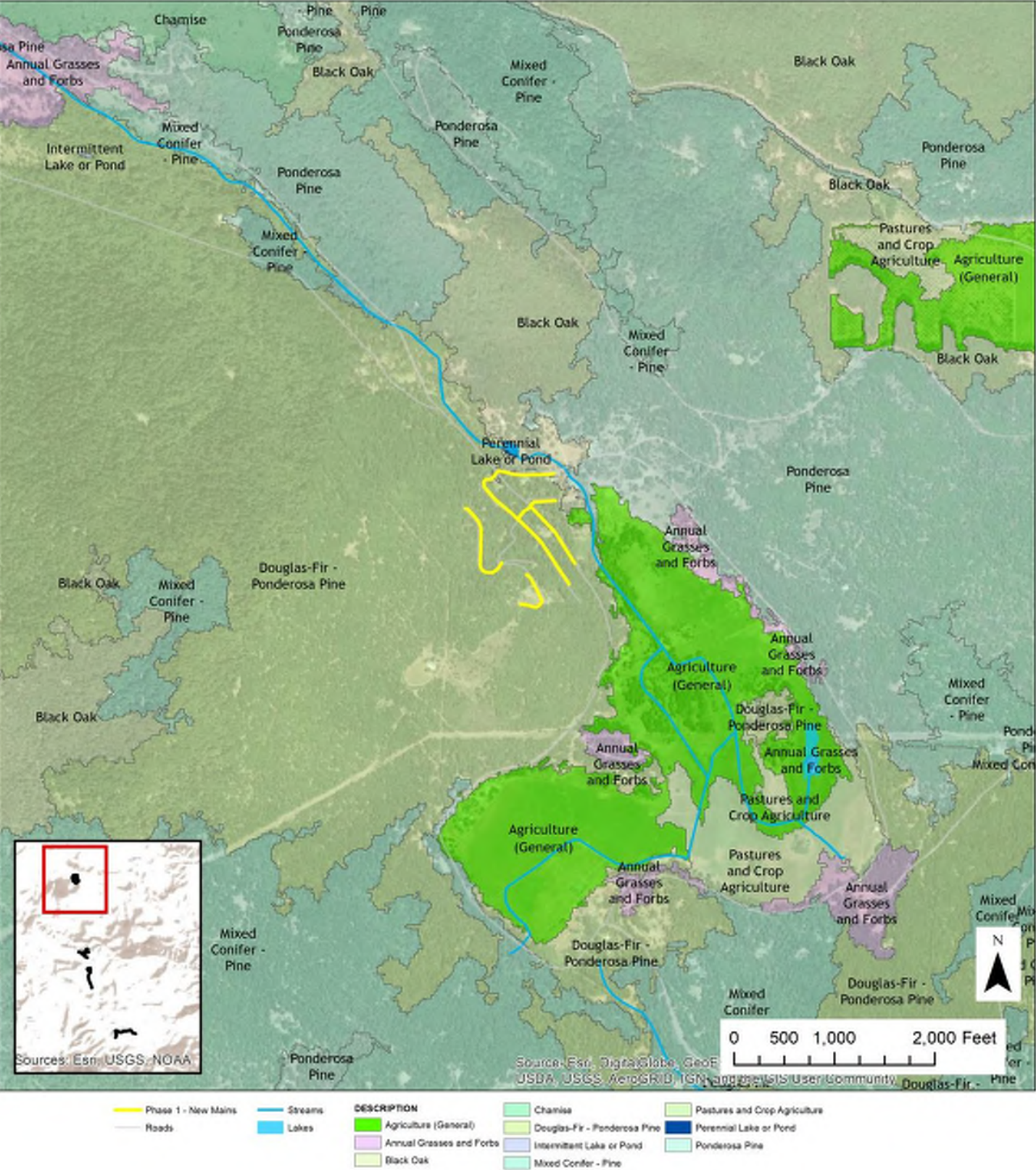


Figure IV-4 Vegetation Communities (Adams Spring & Pineview Heights Areas)
Cobb Mountain Water District System Improvements Project, Lake County, CA

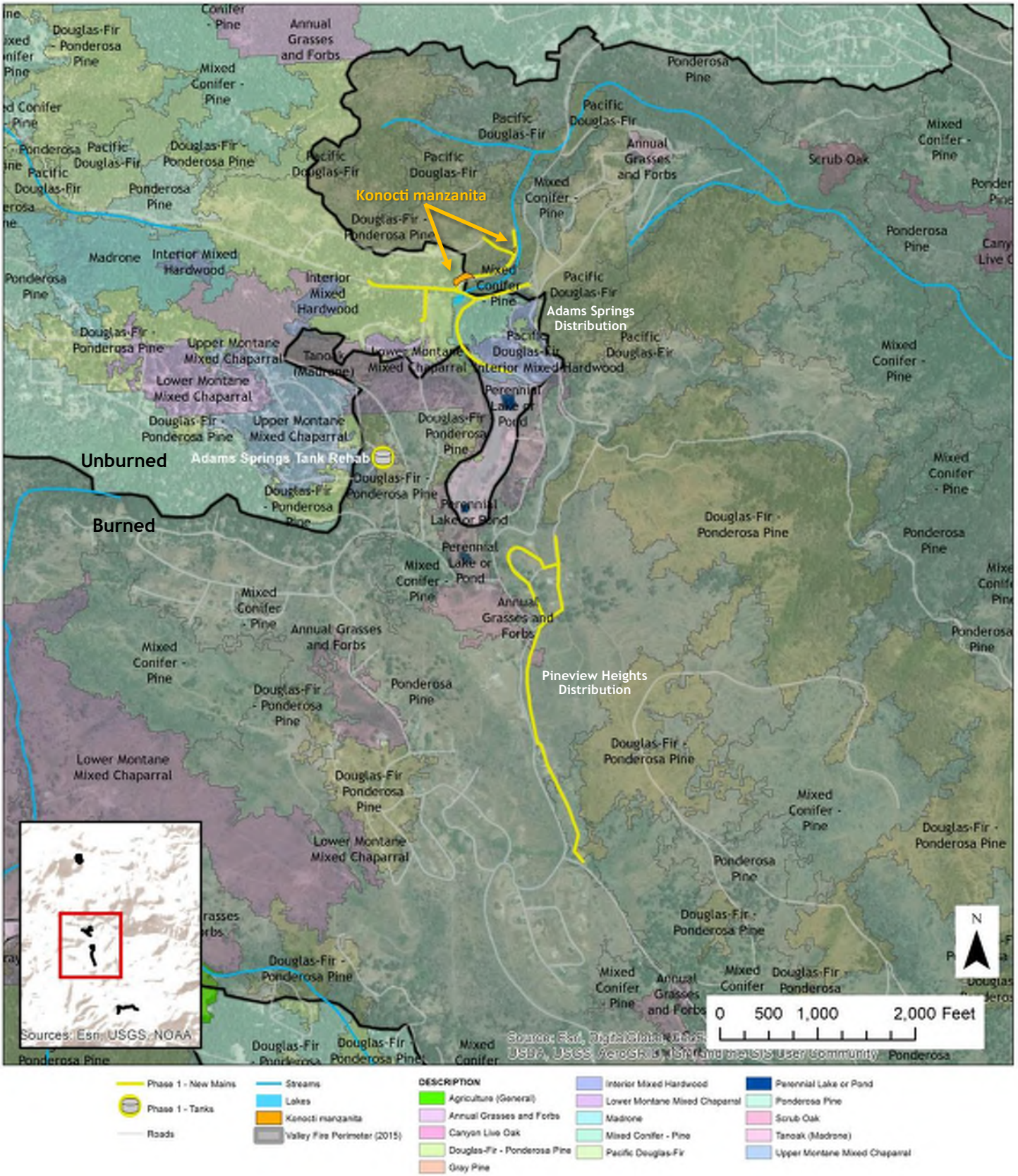
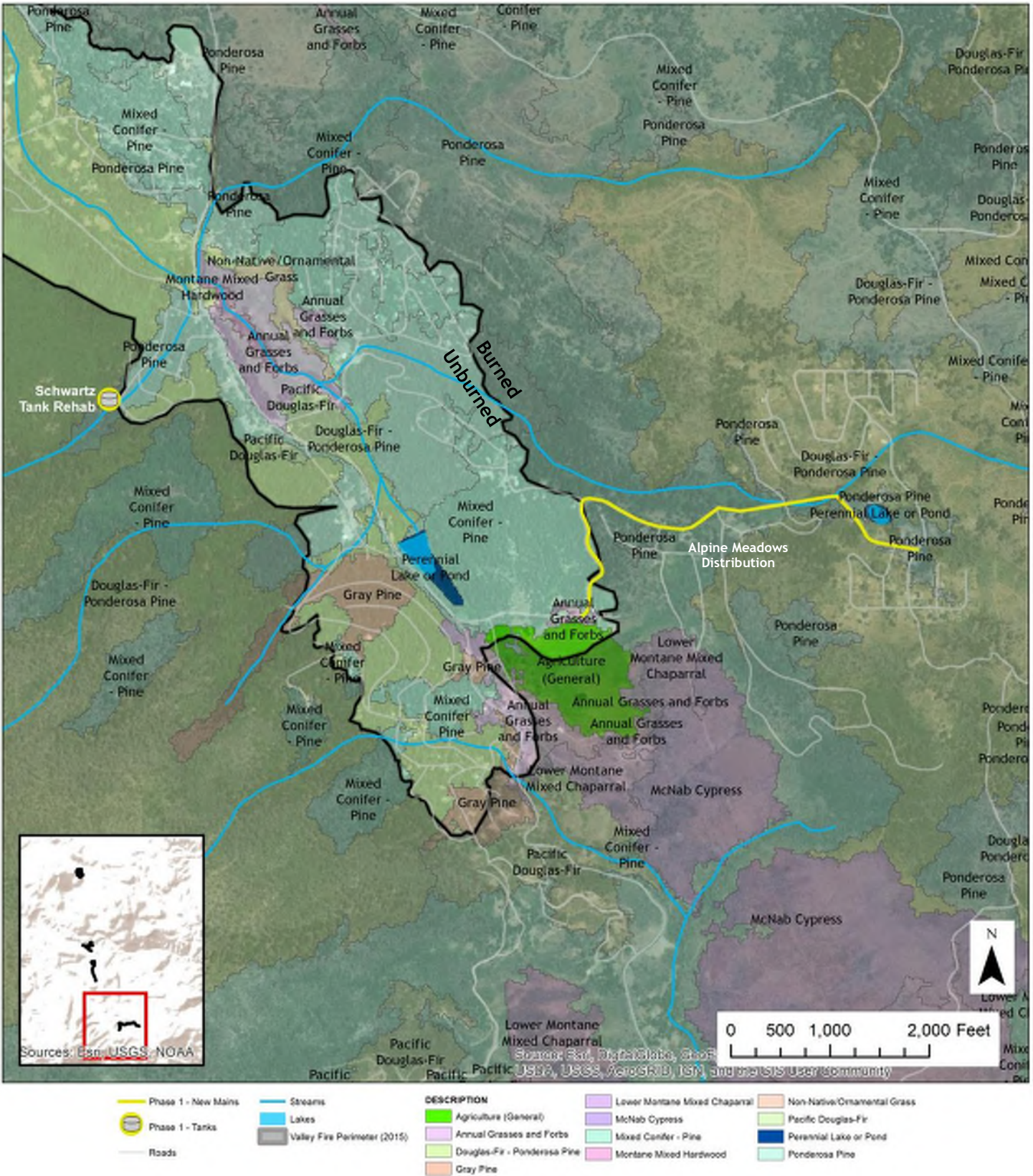


Figure IV-5 Vegetation Communities (Schwartz, Alpine Meadows & Starview Areas)
 Cobb Mountain Water District System Improvements Project, Lake County, CA



Developed

Developed areas within the project area mainly consist of roads, residential housing, and Adams Springs Golf Course. These areas are associated with non-native herbaceous species, ornamental landscaping, and turf.

Sensitive Natural Communities

Sensitive natural communities in the project area consist of seasonal wetlands, ponds and creeks. These are shown on Figures IV-6 through IV-8 and described below.

Seasonal Wetland

A small, seasonal wetland occurs to the west of the Adams Springs waterline distribution improvements near the Adams Springs Golf Course (Figure IV-6). This seasonal wetland is on the west side of Lema Lane. The wetland drains east through a series of culverts and ditches to a pond that is hydrologically connected to Big Canyon Creek. The seasonal wetland is dominated by rush (*Juncus* sp.).

Pond/Lake

Two freshwater ponds/lakes occur within or adjacent to the project area. One freshwater lake occurs within the Adams Springs Golf Course and adjacent to the Adams Springs waterline distribution improvements (Figure IV-6). This lake is in the northeast corner of Harrington Flat Road and Casentini Drive. The lake is associated with willows (*Salix* sp.) and is hydrologically connected to Big Canyon Creek. Another freshwater pond/lake is found northeast of Gifford Springs Road next to the waterline distribution improvements for Alpine Meadows (Figure IV-7).

Non-wetland Waters of the United States

Potentially jurisdictional tributaries, Big Canyon Creek, Jones Creek, and Cole Creek occur within or adjacent to the project area (Figures IV-6 through IV-9). These non-wetland waters of the United States and their associated riparian vegetation communities are considered sensitive natural communities. Riparian plant species observed within the project area include big-leaf maple (*Acer macrophyllum*), California blackberry (*Rubus ursinus*), ferns, western poison oak (*Toxicodendron diversilobum*), and willow (*Salix* sp.).

Big Canyon Creek occurs next to the Adams Springs waterline distribution improvements. Big Canyon Creek is a tributary to Putah Creek which flows to the Yolo Bypass and ultimately, the Sacramento River. A tributary to Kelsey Creek runs alongside the road near Schwartz water tank. Kelsey Creek is the third largest tributary to Clear Lake which drains to the east via Cache Creek into the Sacramento River (County of Lake 2010). Alpine Meadows waterline distribution improvements will occur at two locations on Jones Creek. Jones Creek is a tributary of Kelsey Creek. Cole Creek is adjacent to waterline distribution improvements at Mount Hannah. Cole Creek is also a tributary to Kelsey Creek.

Figure IV-6 Waterways (Big Canyon Creek)
Cobb Mountain Water District System Improvements Project, Lake County, CA

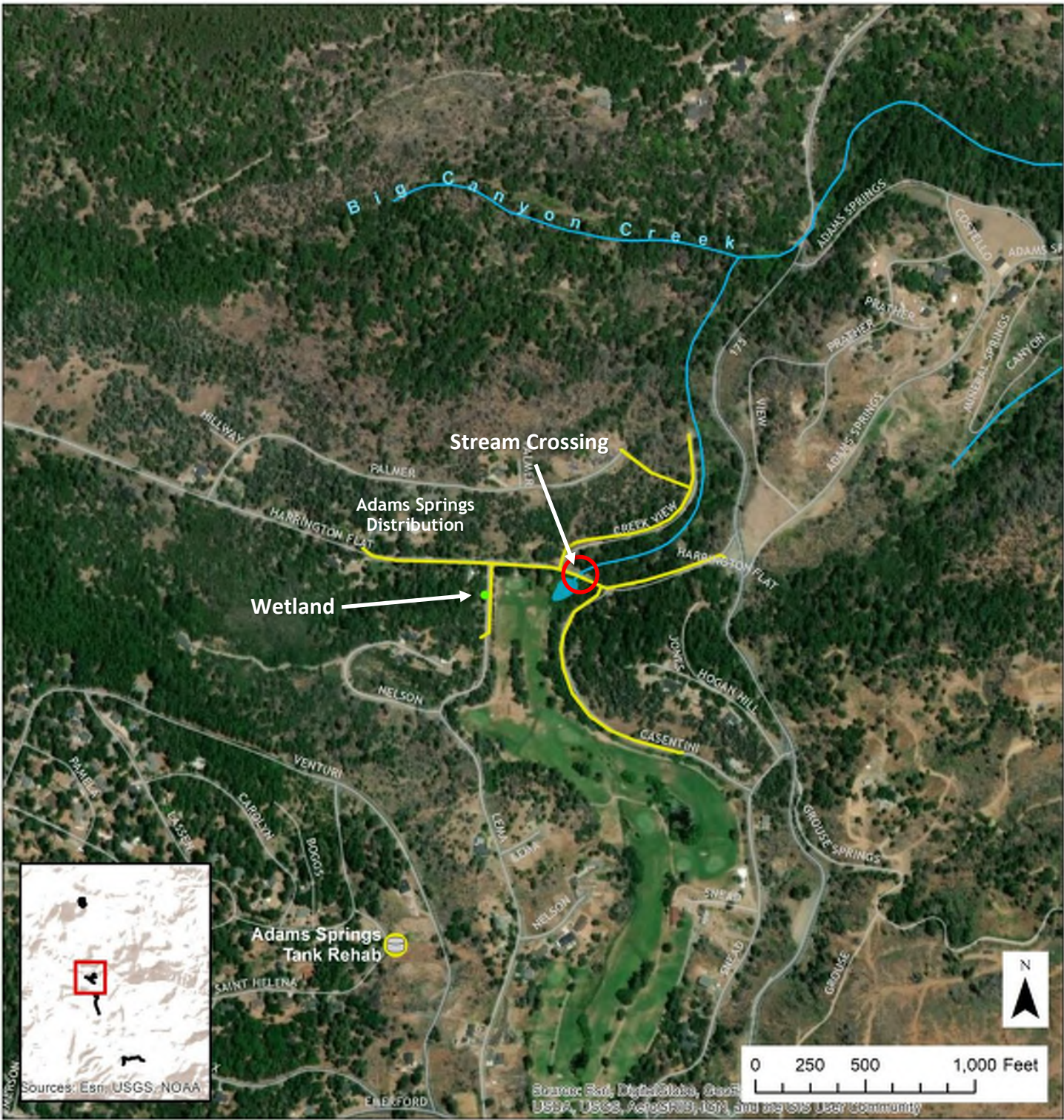


Figure IV-7 Waterways (Jones Creek)
Cobb Mountain Water District System Improvements Project, Lake County, CA



Figure IV-8 Waterways (Cole Creek)
Cobb Mountain Water District System Improvements Project, Lake County, CA



Figure IV-9 Waterways (Kelsey Creek)
Cobb Mountain Water District System Improvements Project, Lake County, CA



Special-Status Plants

Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed species and those that are formal candidates for listing. Plant species on the California Native Plant Society Rare and Endangered Plant Inventory with California Rare Plant Ranks of 1 and 2 are also considered special-status plant species and must be considered under CEQA.

Based upon a review of the resources and databases, 70 special-status plant species have been documented within a 12-quad search of the project area (Figure IV-1). Ten special-status plant species are documented in the region and can be found in lower montane coniferous forest, pine/oak woodland, and streams and associated riparian habitat, shown below.

Special Status Plants Potentially Present in the project area

Scientific Name/ Common Name	Status ¹	Habitat	Elevation (meters)	Flowering Period
<i>Arctostaphylos manzanita</i> subsp. <i>elegans</i> Konocti manzanita	1B.3	Chaparral, cismontane woodland, lower montane coniferous forest; volcanic soils	220-1,850	Feb-May
<i>Brodiaea leiptandra</i> narrow-flowered California brodiaea	1B.2	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland	40-1,220	May-July
<i>Ceanothus confusus</i> Rincon Ridge ceanothus	1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland, pine/oak woodland; usually on volcanic or serpentinite soils	75-1,100	Feb-Apr
<i>Ceanothus divergens</i> Calistoga ceanothus	1B.2	Chaparral, pine/oak woodland; usually serpentinite or volcanic, rocky soils	150-950	Feb-Apr
<i>Erigeron greenei</i> Greene's narrow-leaved daisy	1B.2	Chaparral, woodland, conifer forest; usually serpentinite or volcanic soils	(100)500-1600	May-Sept
<i>Horkelia bolanderi</i> Bolander's horkelia	1B.2	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland	450-1,100	May-Sept
<i>Lupinus sericatus</i> Cobb Mountain lupine	1B.2	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest	500-1,500	Mar-Jun
<i>Potamogeton</i> <i>zosteriformis</i> eel-grass pondweed	2B.2	Ponds, lakes, streams	< 1,300	Jun-Jul
<i>Sidalcea oregana</i> subsp. <i>hydrophila</i> marsh checkerbloom	1B.2	Meadows and seeps, riparian forest	440-2,300	Jul-Sep
<i>Viburnum ellipticum</i> Oval-leaved viburnum	2B.3	Chaparral, cismontane woodland, lower montane coniferous forest	300-1,400	Jun-Aug

¹ California Rare Plant Rank

1B – Plants rare, threatened, or endangered in California and elsewhere.

2B – Plants rare, threatened, or endangered in California but more common elsewhere.

0.1 – Seriously threatened in California

0.2 – Moderately threatened in California

0.3 – Not very threatened in California

Other special-status plant species documented in the area are unlikely or have no potential to occur on the project area for one or more of the following reasons:

- Hydrologic conditions (e.g. marsh habitat, wet meadow, seeps) necessary to support the special-status plants do not exist on site;
- Edaphic (soil) conditions (e.g. sandy soils) necessary to support the special-status plants do not exist on site;
- Topographic conditions (e.g. slopes) necessary to support the special-status plants do not exist on site;
- Unique pH conditions (e.g. serpentine) necessary to support the special-status plant species are not present on the project Site;
- Associated vegetation communities (e.g. chaparral, broadleaved upland forest) necessary to support the special-status plants do not exist on site.

During the January 30, 2020 site visit, Konocti manzanita (*Arctostaphylos manzanita* subsp. *elegans*) was observed at the Adams Springs waterline distribution improvements site (Figure IV-4). Approximately 20 individuals occur north of Harrington Flat Road and Creek View Drive in burned habitat with intermittent California black oak, gray pine, and Ponderosa pine.

Special Status Wildlife

In addition to wildlife listed as federal or state endangered and/or threatened, federal and state candidate species, CDFW Species of Special Concern, CDFW California Fully Protected species, USFWS Birds of Conservation Concern, and CDFW Special Status Invertebrates are all considered special-status species. Although these species generally have no special legal status, they are given special consideration under CEQA. The federal Bald and Golden Eagle Protection Act also provides broad protections to both eagle species that are roughly analogous to those of listed species. Bat species are also evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity; bats named as a “High Priority” or “Medium Priority” species for conservation by the WBWG are typically considered special-status and also considered under CEQA; bat roosts are protected under CDFW Fish and Game Code. In addition to regulations for special-status species, most native birds in the United States (including non-status species) are protected by the federal Migratory Bird Treaty Act of 1918 (MBTA) and the California Fish and Game Code (CFGC), i.e., sections 3503, 3503.5 and 3513. Under these laws, deliberately destroying active bird nests, eggs, and/or young is illegal.

Twenty-two (22) special-status wildlife species have been documented within five miles of the project area (Figure IV-2). Based on the presence of biological communities described above, the project sites have the potential to support 12 of these species. These species are described below.

Special Status Wildlife Potentially Present in the project area

Scientific Name/ Common Name	Status ¹	Habitat	Potential Location	Potential for Occurrence/Impacts
<i>Mammals</i>				
western red bat <i>Lasiurus blossevillei</i>	SSC, WBWG High	Typically, solitary species, roosts primarily in the foliage of trees or shrubs, usually in broad-leaved trees including cottonwoods, sycamores, alders, and maples. Day roosts are common in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas.	Adams Spring, Alpine Meadows	A small amount of suitable habitat is present along Big Canyon Creek near the golf course and at the western terminus of Alpine Meadows.
hoary bat <i>Lasiurus cinereus</i>	WBWG Medium	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees near the end of branches. Feeds primarily on moths. Requires water. This species tolerates a wide range of temperatures.	Adams Spring, Alpine Meadows	A small amount of suitable habitat is present along Big Canyon Creek near the golf course and at the western terminus of Alpine Meadows.
long eared myotis <i>Myotis evotis</i>	WBWG Medium	Occurs in semiarid shrublands, sage, chaparral, and agricultural areas, but is usually associated with coniferous forests from sea level to 9,000 feet. Individuals roost under exfoliating tree bark, and in hollow trees, caves, mines, cliff crevices, and rocky outcrops on the ground; sometimes in buildings and under bridges.	Mount Hannah, Schwartz tank	Suitable tree roosting habitat is present.
fringed myotis <i>Myotis thysanodes</i>	WBWG High	Associated with a wide variety of habitats including dry woodlands, desert scrub, mesic coniferous forest, grassland, and sage-grass steppes. Oak and pinyon-juniper woodlands are most commonly used. Buildings, mines and large trees and snags are important day and night roosts.	Mount Hannah, Schwartz tank	Suitable tree roosting habitat is present; however, preferred habitat is not present.
<i>Birds</i>				
northern spotted owl <i>Strix occidentalis caurina</i>	FT, ST	Year-round resident in dense, structurally complex forests, primarily those with old-growth conifers. Nests in cavities or on platforms in large trees, preferentially inhabiting old growth forests, though it can be found in mixed primary- and secondary-growth forests in the southern part of its range (southern Oregon and California). Preys on mammals. Each nesting pair requires a large territory for hunting and raising young.	Mount Hannah	A single Northern spotted owl occurrence is located at the northern edge of the Mount Hannah site. However, this area is partially developed and therefore is not likely suitable for nesting, though the species may forage in this area.
bald eagle <i>Haliaeetus leucocephalus</i>	FD, SE, CFP, BCC	Occurs year-round in California, but primarily a winter visitor. Nests in large trees in the vicinity of larger lakes, reservoirs and rivers. Wintering habitat somewhat more variable but usually	Mount Hannah, Alpine Meadows	Limited potential nesting habitat is located on the western portion of the Mount Hannah site and the western end of the

CAWD District Consolidation Improvements
Cobb Area Water District

		features large concentrations of waterfowl or fish.		Alpine Meadows site. No nest structures were observed.
purple martin <i>Progne subis</i>	SSC	Inhabits woodlands and low elevation coniferous forests. Nests in old woodpecker cavities and human-made structures. Nest is often located in tall, isolated tree or snag.	Mount Hannah, Pineview Heights, Alpine Meadows	This species may utilize burned trees/snags for nesting and thus, may occur throughout the project area, though less commonly in residential areas.
<i>Amphibians and Reptiles</i>				
California giant salamander <i>Dicamptodon ensatus</i>	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams, often in headwater reaches. Larvae usually remain aquatic for over a year.	Adams Spring, Alpine Meadows	This species is documented in the Adams Spring area and likely breeds in Big Canyon Creek, and potentially in Jones Creek within the Alpine Meadows area; may utilize terrestrial habitat in these areas where moist leaf litter is present.
red-bellied newt (<i>Taricha rivularis</i>)	SSC	Lives in terrestrial habitats in redwood forests along the coast and will migrate several hundred meters in a season to breed in fast-moving streams with rocky bottoms. After breeding, adults leave streams but usually remain in the same drainages or may use underground refugia and forage at the surface when dispersing.	Adams Spring, Alpine Meadows	This species is documented west of Alpine Meadows and potentially breeds in both Big Canyon Creek, and Jones Creek; may utilize terrestrial habitat in the surrounding area.
foothill yellow-legged frog <i>Rana boylei</i>	SSC (North Coast clade)	Found in or near rocky streams in a variety of habitats. Prefers partly shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	Adams Spring, Alpine Meadows	This species is documented west of Alpine Meadows and potentially occurs in both Big Canyon Creek, and Jones Creek. This species is unlikely to be found outside aquatic habitat.
Pacific (western) pond turtle <i>Actinemys marmorata</i>	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require warm, shallow, low flowing or stagnant nutrient rich waters with basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying. Nesting occurs from late April through July and requires open, dry upland habitat with friable soils for nesting and prefer to nest on unshaded slopes within 5 to 100 meters of suitable aquatic habitat. Adults may also take refuge in vegetated, upland habitat for up to four months.	Adams Spring, Alpine Meadows	This species may be present in Big Canyon Creek and upstream pond habitat, and in Jones Creek and nearby pond habitat; may nest on open or vegetated slopes up to 100 meters along Big Canyon Creek or Jones Creek. Not likely to occur in residential areas.

<i>Fish</i>				
steelhead - central CA coast DPS <i>Oncorhynchus mykiss irideus</i>	FT (NMFS)	Occurs from the Russian River south to Soquel Creek and Pajaro River and in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for one or more years before migrating downstream to the ocean.	Adams Spring	This species may be present in Big Canyon Creek only.

The remaining species found in the review of background literature were determined to be unlikely to occur due to absence of suitable habitat elements and/or community types in and immediately adjacent to the project sites.

Analysis

- a. **Would the project 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 (CDFW) or U.S. Fish and Wildlife Service (USFWS)?**

There are ten special-status plant species and 12 special-status animal species with the potential to be present, as indicated in the tables above. Potential impacts to these species are described below.

Special Status Plant Species

Ten special-status plants have potential to occur in the project area including, Konocti manzanita, narrow-flowered California brodiaea, Rincon Ridge ceanothus, Calistoga ceanothus, Greene's narrow-leaved daisy, Bolander's horkelia, Cobb Mountain lupine, eel-grass pondweed, marsh checkerbloom and oval-leaved viburnum. None of these are listed by CDFW or USFWS but are listed by the California Native Plant Society and are considered special-status species.

Konocti manzanita was observed at the Adams Springs waterline distribution improvements on January 30, 2020 (see Figure IV-4). Most work is proposed to occur within the existing roadway and previously impacted areas and thus, potentially significant impacts to these ten special-status plant species are not likely to occur in most the project area.

Where vegetation removal cannot be avoided and/or trench work is proposed in vegetated areas, potential direct impacts may occur including mortality or removal of special-status plants, if present. Staging and access may also cause trampling, which can also result in mortality. Mortality to special-status plants would be considered a potentially significant impact. This potential impact would be reduced to a level of less than significant with incorporation of Mitigation Measure BIO1.

Special Status Wildlife Species

Four special-status bats (western red bat, hoary bat, long eared myotis, and fringed myotis) may potentially roost in trees and snags located throughout the project area. Removal of trees containing a roost and/or disturbance (including removal) to maternity roosts would be considered a significant impact under CEQA. Mitigation Measure BIO2 is included to reduce potential impacts to special-status bat species through avoidance and preconstruction surveys to less than significant.

Three special-status birds (Northern spotted owl, bald eagle, and purple martin) plus many common birds protected under the Migratory Bird Treaty Act may potentially nest throughout the project area. Removal of or disturbance to nesting birds causing the nest to be abandoned or fail is considered a significant impact under CEQA. Likewise, impacts to bald eagle nests are considered a violation of the California ESA. Preconstruction nesting surveys are required by Mitigation Measure BIO3 and will reduce the potential impact to nesting birds to a level of less than significant. In addition, impacts to nesting Northern spotted owl (including noise disturbance within 500 feet of an active nest) is considered a violation of the state and federal ESA (listed as threatened). Northern spotted owl are known to occur (Figure IV-10) within the project area but potential impacts would be limited to the Mount Hannah area due to the tree loss associated with the wildfire in the rest of the project areas. Mitigation Measure BIO4 will reduce potential impacts to Northern spotted owl to a level of less than significant.

Three special-status amphibians (California giant salamander, red-bellied newt, and foothill yellow-legged frog) and one reptile (western pond turtle) may potentially be present where improvements are located near streams and/or lakes (pond turtle only). These species are California species of special concern and may be directly impacted if present during construction activities in close proximity to aquatic habitat (typically within 100 meters). Incidental mortality is considered less than significant. However, impacts to multiple species in a given area, including nesting or breeding individuals may be considered significant under CEQA unless measures are taken to avoid impacts. Mitigation Measure BIO5 is included to reduce potential impacts to less than significant.

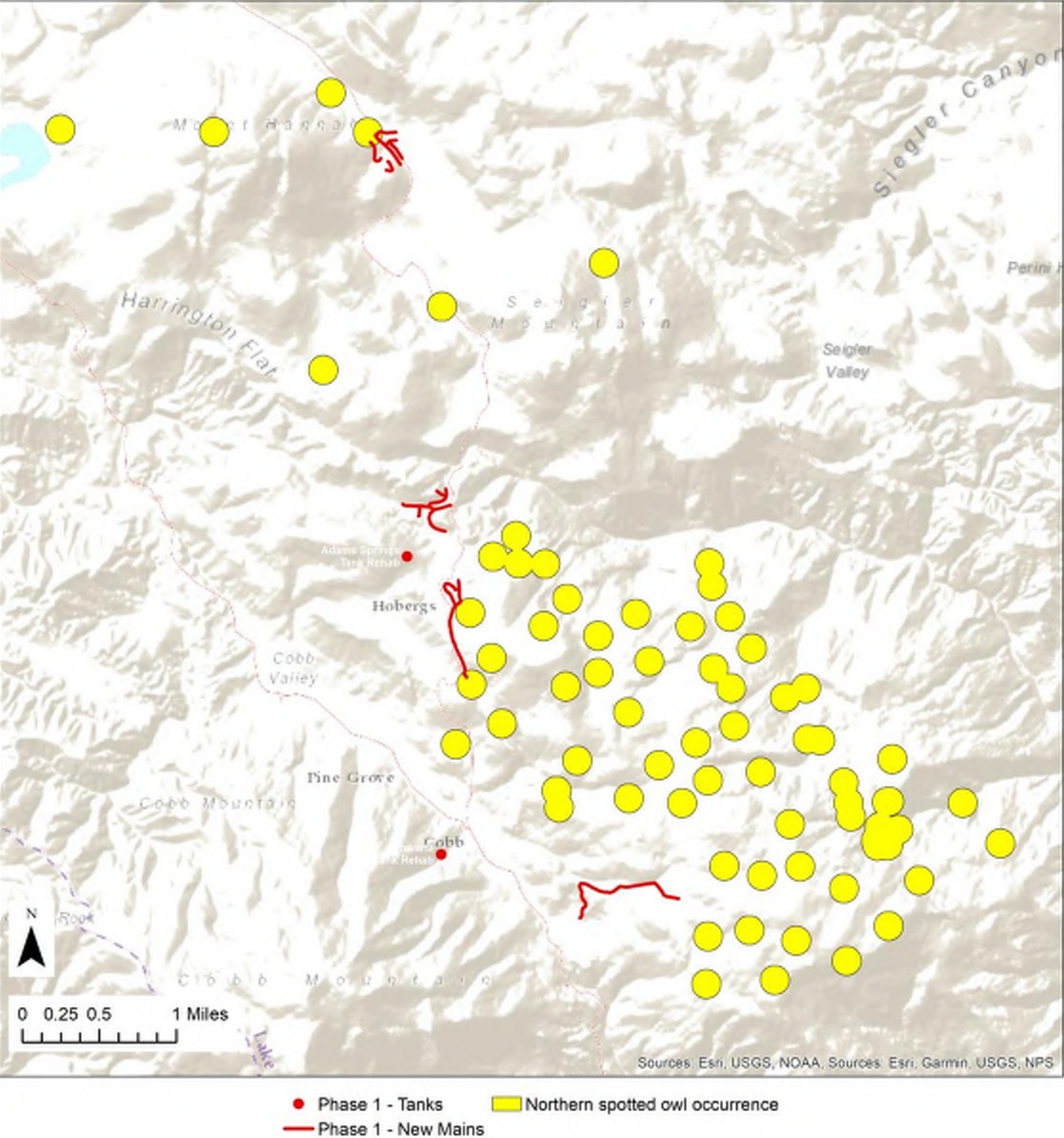
One special-status fish (steelhead) may be present in Big Canyon Creek. Because all work will take place outside the creek, no significant impacts to this species are likely to occur.

b. Would the project 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?

A seasonal wetland, two ponds, and non-wetland waters (streams) and their associated riparian vegetation are sensitive natural communities occurring within the project area (Figures IV-6 to IV-9). Any permanent loss of seasonal wetland or pond habitat would be a potentially significant impact under CEQA. The seasonal wetland and ponds are likely within USACE jurisdiction under Section 404 of the Clean Water Act and under the jurisdiction of the Central Valley RWQCB according to the Porter-Cologne Act. No project activities are anticipated to occur within the ponds or potential wetlands. However, any proposed project activities that would occur in seasonal wetland and pond habitat would require mitigation to compensate for the functions of those wetlands proposed to be filled and appropriate permits would be required.

Big Canyon Creek, the tributary to Kelsey Creek at Pine View Heights Area/Schwartz water tank, Jones Creek, and Cole Creek are tributaries to the Sacramento River, a traditional navigable water (TNW). These non-wetland waters of the United States are subject to USACE jurisdiction due to their connection with a TNW of the United States and may also be considered waters of the state subject to the RWQCB and CDFW.

Figure IV-10 Northern Spotted Owl Occurrences
 Cobb Mountain Water District System Improvements Project, Lake County, CA



Activities that result in the substantial modification of the bed, bank or channel of a stream or lake would require a Streambed Alteration Agreement from CDFW pursuant to Sections 1600-1607 of the California Fish and Game Code and/or a Section 401 Water Quality Certification or NPDES permit from the RWQCB. On streams, creeks and rivers, the extent of CDFW and RWQCB jurisdiction extends from the top of bank to top of bank or the outer limits of the riparian canopy, whichever is wider. As such, any impacts to streams or riparian vegetation could be significant unless mitigated through consultation with CDFW and RWQCB. Phase 1 stream crossings would all be accomplished by crossing above or below an existing culvert under an established roadway and would not impact the stream.

Mitigation Measure BIO6 includes avoidance measures to reduce potential impacts to sensitive habitats to less than significant as well as the requirement to obtain appropriate permits for any activities that would result in direct impacts within jurisdictions described above.

- c. Would the project 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?**

The project occurs primarily within existing roadways or disturbed areas. As described in b.) above, the project is not expected to impact wetlands. In the unlikely event wetlands would be impacted, appropriate permits would be obtained and mitigation at not less than a 1:1 ratio would occur, as provided in Mitigation Measure BIO6.

- d. Would the project 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?**

The project is primarily located underground in existing roadways or disturbed locations and would not disrupt movement of migratory fish or wildlife species or impede the use of wildlife nursery sites.

- e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

The County does not have a tree protection ordinance. No tree removal is anticipated to occur associated with the project. Much of the tree cover in the project area burned during the Valley Fire.

- f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

The project location is not part of an adopted Habitat Conservation Plan or Natural Community Conservation Plan.

Cumulative Impacts

There are no adverse cumulative environmental impacts to biological resources resulting from implementation of the proposed project.

Mitigation Measures

BIO1

The following measures will avoid and/or mitigate for potential impacts to special-status plants due to vegetation removal at select locations:

1. A pre-construction plant survey shall be performed in all locations where work will occur beyond the limits of the roadway or will require some vegetation removal to access. Surveys shall be performed during the blooming period for each of the species, which can vary from year to year. To ensure coverage of the ten species with potential to occur (Konocti manzanita, narrow-flowered California brodiaea, Rincon Ridge ceanothus, Calistoga ceanothus, Greene's narrow-leaved daisy, Bolander's horkelia, Cobb Mountain lupine, eel-grass pondweed, marsh checkerbloom and oval-leaved viburnum), surveys in 2020 are recommended to occur in May and July.
2. If special-status plants are found, they should be completely avoided; orange construction fencing should be placed around the plants to ensure impacts during activities do not occur. In the event a plant cannot be completely avoided then a relocation or propagation plan shall be prepared and implemented prior to activities in those areas or it may be salvaged and transplanted following work in that area (shrub or manzanitas only). Avoidance, salvage/transplanting, or reseedling (propagation) will ensure no significant impacts to special-status plants occur.

BIO2

To reduce potential impacts to bat species (western red bat, hoary bat, long eared myotis, and fringed myotis), the following mitigation measures shall be implemented.

1. Prior to activities in areas where bat roosts may be present and subject to disturbance during the maternity season between April and September, a qualified bat biologist shall perform a pre-construction roost survey (dusk emergence survey) no more than 10 days prior to the start of activities to avoid potential impacts to active maternity sites and/or pregnant females.
2. If a maternity roost is located whether solitary or colonial, that roost shall remain undisturbed until September 1 or until a qualified biologist has determined that the roost is no longer active. A no-disturbance buffer may be established around the roost at the direction of the biologist.
3. Tree removal may have the potential to impact non-maternity roosting bats that may be present. As such, any felled trees should be left overnight prior to removal from the site or on-site chipping to allow any bats to exit the roost.

BIO3

To avoid impacts to migratory nesting birds, bald eagle and purple martin, the following mitigation measures shall be implemented.

1. Tree removal and roadway construction should be initiated during the non-nesting season from September 1 to January 31.
2. If work cannot be initiated during this period, or if there is a break in activity lasting more than 14 days after February 1, then nesting bird surveys shall be performed within 500 feet of proposed activities.
3. If nests are found, a no-disturbance buffer shall be placed around the nest until young have fledged or the nest is determined to be no longer active by the biologist. The size of the buffer may be

determined by the biologist based on species and proximity to activities; larger buffers up to 500 feet are recommended for special status raptor species.

BIO4

To avoid impacts to Northern Spotted Owl, the following mitigation measures shall be implemented.

1. All construction related activities, including tree removal and/or road construction (grading or paving) shall be performed outside the nesting season for northern spotted owl in areas where it may occur (Mount Hannah only). The nesting season for northern spotted owl is from March 15 to August 31. Alternatively, protocol-level surveys may be performed. A minimum of 6 surveys is required. If Northern spotted owl are determined to be present by surveys, consultation with USFWS and CDFW would be required prior to any construction.

BIO5

To reduce potential impacts to special-status amphibians and reptiles (California giant salamander, red-bellied newt, foothill yellow-legged frog, and western pond turtle), the following mitigation measures shall be applied.

1. A pre-construction surveys for special status amphibians and reptiles shall be conducted within 48 hours of ground disturbing activities if within 100 meters (328 feet) of any aquatic habitat and outside existing hardscape area and/or private property. Surveys are to be conducted by approved qualified biologist with experience surveying for each species. If any species is found on the project site, it should be allowed to leave the area on its own. If the animal does not leave the area on its own, CDFW should be contacted. Non-listed species if found, may be relocated to suitable habitat outside the project Site.
2. Tightly woven fiber netting or similar material shall be used for erosion control or other purposes to ensure amphibian and reptile species do not get trapped. Plastic monofilament netting (erosion control matting), rolled erosion control products, or similar material should not be used. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.
3. All over-water work shall be performed during the dry season, unless otherwise authorized by state issued permits.
4. If the stream contains standing or flowing water during the dry season, a catch basin shall be installed to prevent discharge of materials and/or equipment into the live waterway that may impact aquatic species.

BIO6

Any proposed project activities that will occur in the seasonal wetland or pond habitat will require mitigation to compensate for the functions of those wetlands proposed to be filled. The minimum replacement ratio is 1:1. Higher replacement ratios are required for high quality wetlands. A USACE Section 404 permit is required to fill in any wetland and shall be obtained prior to any portions of the project that would fill wetlands.

The following measures are recommended to avoid and/or mitigate for potential direct and indirect impacts to wetland and non-wetland waters of the United States and their associated riparian habitat in the project area:

1. Orange construction fencing shall be placed around all existing wetland, riparian and stream vegetation to avoid potential impacts to these sensitive vegetation communities during construction-related activities. Placement of exclusion fencing should be performed under the direction of a biologist to ensure maximum avoidance of sensitive vegetation communities.
2. In addition to orange construction fencing, silt fence shall be installed and maintained between the work area and non-wetland waters of the United States to prevent any contaminants from entering the waterway.
3. Best management practices should be employed including the preparation of a spill prevention plan to prevent discharge or spilling of materials or liquids into sensitive habitats.
4. Work at Jones Creek and Big Canyon Creek is anticipated to be accomplished above or below the existing culvert and would not impact the streams. If work will occur within the riparian corridor of either Jones Creek or Big Canyon Creek and water main improvements cannot be installed under or over existing culverts, both the RWQCB and CDFW shall be notified to determine whether a NPDES permit (or 401 water quality certification) and/or a Section 1602 Streambed Alteration Agreement is needed for these locations.
5. To the extent practical, all work within the riparian corridor should be performed outside the rainy season.

V CULTURAL RESOURCES

Section 15064.5(a) of CEQA includes a broad definition of historical and archaeological resources as follows:

- (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 et seq.).
- (2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- (3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:
 - (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - (B) Is associated with the lives of persons important in our past;
 - (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;
 - or,
 - (D) Has yielded, or may be likely to yield, information important in prehistory or history.
- (4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tom Origer & Associates prepared a Cultural Resources Study⁹ for the Phase 1 project and an Archival Study¹⁰ for the entire project in April 2020. Excerpts from both reports are included in this section. Both reports were prepared by Eileen Barrow. She holds a Master of Arts in cultural resources management from Sonoma State University. Ms. Barrow's experience includes work that has been completed in compliance with local ordinances, CEQA, NEPA, and Section 106 (NHPA) requirements.

This study included archival research at the Northwest Information Center, Sonoma State University, examination of the library and files of Tom Origer & Associates, Native American contact, and field inspection of the study area. Information related to the precise locations of archaeological sites is confidential, and not included herein.

Environmental Setting

CULTURAL SETTING

Prehistory

Although archaeological work began as early as the 1900s in the San Francisco Bay Area (Moratto 1984:505; Nelson 1909), no archaeological work was performed in northwestern California until 1955 when Clement Meighan excavated CA-MEN-500 near Willits (Meighan 1955). Meighan, along with Richard Beardsley (1954), was the first to publish studies regarding cultural sequences in the area north of San Francisco Bay. In 1973, David Fredrickson synthesized prior work, and in combination with his own research, he developed a regional chronology that is used to this day, albeit modified for locality-specific circumstances. Fredrickson's scheme shows that native peoples have occupied the region for over 11,000 years (which is supported by Erlandson et al. 2007), and during that time, shifts took place in their social, political, and ideological regimes (Fredrickson 1973).

The most recent summary of data related to the identification of patterns within the temporal periods identified by Fredrickson comes from Hildebrandt (2007). Patterns represent a set of traits that were adopted by a number of separate cultures over an appreciable period of time and within an appreciable space (Bennyhoff and Fredrickson 1994:20-21). Hildebrandt analyzed data from excavations throughout the North Coastal Region of California, which extends from the Oregon border south to southern Sonoma County, and from the Pacific Ocean east to the eastern slopes of the North Coast Ranges (Hildebrandt 2007; Moratto 2004:472). Hildebrandt found that while cultural patterns in the southern North Coastal Region resembled those of the San Francisco Bay Area, those to the north followed a different trajectory represented by the Post, Borax Lake, Mendocino, and Gunther patterns. Hildebrandt (2007) summarizes artifact types and time spans for each pattern found in northern California; Table 2 provides a comparison of Hildebrandt's and Fredrickson's chronologies.

In 1960, the first study of obsidian hydration as a dating tool for archaeologists was published (Friedman and Smith 1960). This study showed that the chemical composition of the obsidian and temperature affect the hydration process. It was not until the 1980s that research into this dating method was conducted for the North Coastal Region which has four major obsidian sources. In 1987, Thomas Origer devised a hydration chronology for the North Coastal Region (Origer 1987). This chronology was developed by pairing micron

⁹ *Cultural Resources Study for the Cobb Area County Water District Improvements Project, Lake County, California*. Tom Origer & Associates. April 9, 2020.

¹⁰ *Archival Study for the Cobb Area County Water District, Lake County, California*. Tom Origer & Associates. April 7, 2020.

readings taken from obsidian specimens and pairing them with radiocarbon-dated artifacts and features. Origer was able to develop a hydration rate for Annadel and Napa Valley obsidian sources as a result of his study. Later, Tremaine (1989, 1993) was able to develop comparison constants among the four primary obsidian sources in the North Coastal Region. The concept of comparison constants allows for the calculation of dates from hydration band measurements taken from obsidian specimens from sources with unknown hydration rates.

The development of obsidian hydration rates for the four, primary North Coastal Region obsidian sources provided archaeologists with the ability to obtain relative dates from sites that could not previously be dated due to lack of diagnostic artifacts or organic material suitable for radiocarbon dating. Origer was able to support and refine Fredrickson's chronology dating tools diagnostic of certain periods (Origer 1987).

Early occupants appear to have had an economy based largely on hunting, with limited exchange, and social structures based on the extended family unit. Later, milling technology and an inferred acorn economy were introduced. This diversification of economy appears to be coeval with the development of sedentism and population growth and expansion. Sociopolitical complexity and status distinctions based on wealth are also observable in the archaeological record, as evidenced by an increased range and distribution of trade goods (e.g., shell beads, obsidian tool stone), which are possible indicators of both status and increasingly complex exchange systems.

Prehistoric archaeological site indicators expected to be found in the region include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements such as slabs and hand-stones, and mortars and pestles; and locally darkened midden soils containing some of the previously listed items plus fragments of bone, shellfish, and fire-affected stones.

ETHNOGRAPHY

Linguists and ethnographers tracing the evolution of languages have found that most of the indigenous languages of the California region belong to one of five widespread North American language groups (the Hokan and Penutian phyla, and the Uto-Aztecan, Algic, and Athabaskan language families). The distribution and internal diversity of four of these groups suggest that their original centers of dispersal were outside, or peripheral to, the core territory of California, that is, the Central Valley, the Sierra Nevada, the Coast Range from Cape Mendocino to Point Conception, and the Southern California coast and islands. Only languages of the Hokan phylum can plausibly be traced back to populations inhabiting parts of this core region during the Archaic period, and there are hints of connections between certain branches of Hokan, that suggest that at least some of the Hokan languages could have been brought into California by later immigrants, primarily from the Southwest and northwestern Mexico (Golla 2011).

However, Moratto (2014: Figure 11.4) suggests that the APE was inhabited by pre-Yukian speakers. It has been hypothesized that Yukian speaking descendants may have been some of the first settlers to California (Golla 2011:241; Moratto 2014:544). By 2000 BC, Hokan speakers have been migrating west into former Yukian territory, pushing Yukians out of the Clear Lake Basin and its surroundings (such as the APE). Beginning around 2000 B.C. and continuing for the next 2000 years, Utian populations spread out of the Central Valley into the San Francisco Bay Area and northwest into what is now Marin, Sonoma, Napa, and southern Lake counties. This pushed Hokan speakers out of land they formerly occupied and put additional pressures on Yukian speakers (Moratto 2014: Figure 11.7).

Between AD 1 and AD 1000 a lot of migration takes place in Northern California that moved groups into lands occupied at the time of European contact. The Wappo (Yukian speakers) moved back into the Napa Valley area. The Pomo (Hokan speakers) moved west and south and occupy what is now much of Sonoma

County and southern Mendocino County. The Miwok (Utian speakers) moved into the Clear Lake Basin from the Central Valley (Moratto 2014:11.8).

At the time of European settlement, the APE was in an area of overlapping ethnographic boundaries between the Eastern Pomo, Lake Miwok, and Wappo (Barrett 1908; Callaghan 1978; Driver 1936; Kroeber 1925; McLendon and Lowy 1978; McLendon and Oswalt 1978; Sawyer 1978). These groups all share similar traits, though speak vastly different languages as described above. These groups were hunter-gatherers who lived in rich environments that allowed for dense populations with complex social. They settled in large, permanent villages about which were distributed seasonal camps and task- specific sites.

Primary village sites were occupied throughout the year, and other sites were visited in order to procure particular resources that were abundant or available only during certain seasons. Sites often were situated near fresh water sources and in ecotones where plant and animal life were diverse and abundant. For more information about the Eastern Pomo see Bean and Theodoratus (1978), Kniffen (1939), and Stewart (1943). For more information about the Wappo, see Powers (1877) and Beard (1979). For more information about the Lake Miwok see Kroeber (1925) and Merriam (1907).

HISTORY

Walter Anderson, Henry Beeson, Benjamin Dewell and their families were some of the first settlers in Lake County. People began arriving in the 1850s to settle the valley lands first and into the hills and mountains as valley land became unavailable; though, due to the remote and ruggedness of the county it has always remained rural. Lake County's primary attraction for settlers was agriculture; however, southern Lake County has home to several mineral springs, and tourism became an industry as early as the 1870s. Around this same time, mining took off as an important industry and included sulfur, quicksilver, and borax (Bishop Sanderson and Garcia Carpenter 2005; Hoberg 2007; Simoons 1954).

There are several books on the history of mineral springs resorts and the history of Lake County (see Carpenter and Millberry (1914), Klages (1991), Menefee (1873), Paleno (2016) Slocum, Bowen & Co., Publishers (1881), W. W. Elliott Lithographer and Publisher (1885)

Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

NATIVE AMERICAN CONTACT

A request was sent to the State of California's Native American Heritage Commission (NAHC) seeking information from its Sacred Lands File and the names of Native American individuals and groups that would be appropriate to contact regarding this project. Letters were also sent to the following groups:

- Big Valley Band of Pomo Indians
- Elem Indian Colony of Pomo Indians
- Koi Nation of Northern California
- Middletown Rancheria of Pomo Indians of California
- Mishewal-Wappo Tribe of Alexander Valley

The NAHC replied with a letter dated December 3, 2019, which indicated that the Sacred Lands File contained information about sacred sites within the township and range of the area of potential effect (APE). A list of additional contacts was provided, and letters were sent to these groups.

On January 21, 2020, Ryan Peterson of Middletown Rancheria of Pomo Indians of California emailed to inquire if Origer & Associates had conducted the field survey. On January 31, 2020, Eileen Barrow called and spoke with Mr. Peterson and told him that the survey had been completed and that no prehistoric archaeological resources were found within the APE. Mr. Peterson had no comments to include in the report (Additional consultation with Mr. Peterson is described in the Tribal Cultural Resources section).

ARCHIVAL STUDY PROCEDURES

Archival research included examination of the library and project files at Tom Origer & Associates. This research is meant to assess the potential to encounter archaeological sites and built environment within the study area. Research was also completed to determine the potential for buried archaeological deposits.

A review (NWIC File No. 19-0937) was completed of the archaeological site base maps and records, survey reports, and other materials on file at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park by Eileen Barrow on December 3, 2019. Sources of information included but were not limited to the current listings of properties on the National Register of Historic Places, California Historical Landmarks, California Register of Historical Resources, and California Points of Historical Interest as listed in the OHP's Historic Property Directory (2012).

PREDICTIVE MODELING

A model for predicting a location's sensitivity for buried archaeological sites was formulated by Byrd et al. (2017) based on the age of the landform, slope, and proximity to water. A location is considered to have highest sensitivity if the landform dates to the Holocene, has a slope of five percent or less, is within 150 meters of fresh water, and 150 meters of a confluence. Note, the Holocene Epoch is the current period of geologic time, which began about 11,700 years ago, and coincides with the emergence of human occupation of the area. A basic premise of the model is that archaeological deposits will not be buried within landforms that predate human colonization of the area. Calculating these factors using the buried site model (Byrd et al. 2017), a location's sensitivity is scored on a scale of 1 to 10 and classed as follows: lowest (<1); low (1-3); moderate (3-5.5); high (5.5-7.5); highest (>7.5). Incorporating King's (2004) analysis of buried site potential, the probability of encountering buried archaeological deposits for each class is as follows:

Sensitivity Score	Classification	Probability
<1	Lowest	<1 %
1-3	Low	1-2 %
3-5.5	Moderate	2-3%
5.5-7.5	High	3-5%
>7.5	Highest	5-20%

FIELD SURVEY PROCEDURES

An intensive field survey of the Phase 1 APE was completed by Eileen Barrow on December 17, 2019. Ground visibility ranged from excellent to poor, with vegetation, imported gravel, and asphalt being the primary hindrances. Since most of the proposed work would take place beneath existing roadways, both sides

of the road were examined to look for archaeological deposits that could extend under the road. A hoe was used, when necessary, to remove vegetation and duff to examine the ground surface.

In addition to examination of the ground surface, efforts were made to examine subsurface soils, when possible, in locations where a Holocene epoch landform was present. Locations where subsurface soils were examined were in the banks of Cole Creek, just outside of the Mount Hannah Distribution Improvements APE location, in the banks of Big Canyon Creek in the Adams Springs Distribution Improvements APE, and in a drainage ditch along Gifford Springs Road at the end of the Alpine Meadow Distribution Improvements APE. All resources recorded within, or in close proximity to, the APE were visited where possible.

Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Results of Origer & Associates archival research follow:

Mount Hannah Distribution Improvements

Archival research found that a small portion of the Mount Hannah Distribution Improvements APE was subjected to a cultural resources study (Cardin 2000; Haney 2012; Leach-Palm et al. 2011). No cultural resources are recorded within or adjacent to the APE. General Land Office records show that the Mount Hannah Distribution Improvements APE was retained by the State of California (GLO 2020b). The first appearance of buildings or structures near the APE is in 1945 when four buildings and Highway 175 are shown (Brice 1953; GLO 1855, 1871, 1873b, 1877b, 1890; USACE 1945; USGS 1958a, 1958b).

Adams Springs Distribution Improvements

Archival research found that only the portion of the Adams Springs Distribution Improvements APE at the intersection of Highway 175 and Harrington Flat Road was previously subjected to a cultural resource study (Leach-Palm et al. 2011; Walker 2016). No cultural resources are recorded within or adjacent to the Adams Springs Distribution Improvements APE. General Land Office records show that the Adams Springs Distribution Improvements APE was a part of several tracts of land. The portion of the Adams Springs Distribution Improvements APE within sections 27 and 34 was homesteaded by Robert Price in 1876. The portion of the APE that lies within sections 26 and 35 was retained by the State of California (GLO 2020a, 2020b). “Pierce’s” [sic] house and barn are shown near the Adams Springs APE as early as 1871 (GLO 1855, 1871). No buildings are shown at these locations on subsequent maps until 1958 when a house is shown south of Harrington Flat Road just past its intersection with Big Canyon Creek (Brice 1953; GLO 1873b, 1877b, 1890; USACE 1945; USGS 1958a, 1958b). This building disappears on subsequent maps and the area is currently a golf course (USGS 1975).

Adams Springs Tank Rehabilitation

Archival research found that about half of the Adams Springs Tank Rehabilitation APE was previously subjected to a cultural resource study (NISTAC 2017b). No cultural resources have been recorded within or adjacent to the Adams Springs Tank Rehabilitation APE. General Land Office records show that the Adams Springs Tank Rehabilitation APE location was part of 160 acres of land homesteaded by Robert Price in 1876 (GLO 2020). No buildings are shown at the Adams Springs Tank APE until 1993

when the tank is shown (Brice 1953; GLO 1855, 1871, 1873b, 1877b, 1890; USACE 1945; USGS 1958a, 1958b, 1975, 1993).

Pine View Heights Distribution Improvements (termed “Quail Area” in the Origer report)

Archival research found that most of the Pine View Heights Distribution Improvements APE was previously subjected to the cultural resource studies, shown below.

Author	Date	S#
Haney	2009	35818
Ives Ringstad	2015a	47061
Leach-Palm <i>et al.</i>	2011	38865
NISTAC	2017	49335
NISTAC	2017	51359
Parker	2015	46646
Walker	2016	48345
Wright	1994	28691

Seven cultural resources are recorded within or adjacent to the Pine View Heights Distribution Improvements APE, shown below. The resource that lies within the APE is P-17-002201. P-17-002201 is Hoberg’s Resort which was one of the only resorts in Lake County that operated without a mineral spring. Hoberg’s Resort was evaluated for its eligibility for inclusion on the California Register and found eligible under Criterion 1 (Parker 2015).

Author	Date	P#
Anthropological Studies Center	2015	17-002540
Carpenter	2015	17-002649
Ives Ringstad	2015b	17-002201
Koznak	2015	17-002759
Whatford	2015a	17-002202
Whatford	2015b	17-002203
Whatford	2015c	17-002204

General Land Office records show that the Pine View Heights Distribution Improvements APE was a part of 114 acres of land purchased by John Mackall in 1883 and land retained by the State of California (GLO 2020). Buildings related to Hoberg’s Resort are shown near and possibly within the Pine View Heights Distribution Improvements APE location as early as 1945; though the Hoberg’s Resort opened as a motel as early as 1895 which they grew into a resort over the years (Brice 1953; GLO 1867, 1873a, 1874, 1875, 1877a, 1901; Hoberg 2007, USACE 1945; USGS 1958a, 1958b, 1975, 1993). The 1958 map shows that the buildings are further from Highway 175 and Grouse Road where the APE is located. In 2015, the Valley Fire burned Hoberg’s Resort as well as several houses near the APE that were not associated with the resort (see Figure 9).

Schwartz Tank Rehabilitation

Archival research found that the Schwartz Tank Rehabilitation APE was not previously subjected to a cultural resource study. No resources are recorded near the Schwartz Tank Rehabilitation APE. General Land Office records show that the Schwartz Tank Rehabilitation APE was retained by the State of California (GLO 2020a). A spring is shown in the Schwartz Tank APE as early as 1945 but a tank is not shown until 1993 (Brice 1953; GLO 1867, 1873a, 1874, 1875, 1877a, 1901; USACE 1945; USGS 1958a,

1958b). According to Ben Murphy, General Manager for the CAWD, the tank was built in the mid-20th century after World War II.

Alpine Meadow Distribution Improvements

Archival research found that the majority of the Alpine Meadow Distribution Improvements APE was previously subjected to several cultural resource studies, shown below. One cultural resource, P-17-002873 is recorded adjacent to the Alpine Meadow Distribution Improvements APE (Leon Guerrero et al. 2017).

Author	Date	S#
Keitzer <i>et al.</i>	1979	1699
NISTAC	2017	49335
NISTAC	2017	51359
Prather	2016	47555

Resource P-17-002873 consists of a segment of the Camp Calso water line, an historical trash scatter, and a few prehistoric items that were subsequently moved to an unknown location (Redmond and Leon Guerrero 2016). It is not clear why the boundary of the site is as large as it is since the individual features make up a much smaller area. General Land Office records show that the western half or so of the Alpine Meadow Distribution Improvements APE was retained by the State of California (GLO 2020a). The eastern half was homesteaded in 1873 by William Jones. Gifford Springs Road and three buildings adjacent to the APE are shown on the 1945 USACE map (Brice 1953; GLO 1855, 1871, 1873b, 1877b, 1890; USACE 1945; USGS 1958a, 1958b).

Potential Impacts

A portion of the Pine View Heights Distribution Improvements APE goes through the boundary of P-17-002201 (Hoberg's Resort). As previously mentioned, this resource was destroyed during the 2015 Valley Fire; however, as part of the post fire clean-up efforts, it was determined that this resource met criteria for inclusion on the National Register under criteria A and D (Walker 2016). Because of this, an Environmentally Sensitive Area (ESA) was established and activities within the Caltrans right-of-way were monitored by a qualified archaeologist and a member of Middletown Rancheria of Pomo Indians of California. Origer & Associates recommends that an ESA be prepared for this resource that is tailored to the needs of this project that includes monitoring of project activities by a qualified archaeologist. A member of Middletown Rancheria of Pomo Indians of California should be invited to monitor as well (please see the Tribal Cultural Resources section of this document—the CAWD and the Middletown Rancheria are in the process of negotiating a monitoring agreement). Mitigation Measure CR1 implements this recommendation and would reduce any impact to the resource to a level of less than significant.

The Schwartz Tank is of sufficient age to be considered potentially eligible for listing on the California and National registers. However, the tank is a ubiquitous structure, is not associated with any people or historical themes in the Cobb area, and it is not associated with a significant water conveyance network or system. Because of this, it would not meet criteria for inclusion on the California or National registers and proposed rehabilitation efforts may proceed without further evaluation.

The Adams Springs tank is less than 45 years old and would not meet criteria for inclusion on the California or National registers; therefore, no recommendations are required.

There are several other structures recorded near the APEs (P-17-002202, P-17-002203, P-17-002204, P-17-002540, P-17-002649, P-17-002759). None of these extend into the road right-of-way or the APEs; therefore, no further recommendations are required. However, there is always the possibility of accidental discovery of historical resources during construction. In the event resources are discovered, mitigation measure CR2 would reduce such impact to less than significant.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Archival research results are described in a.), above. Based on landform age, Origer & Associates analysis of the environmental setting, and incorporating the Byrd et al. (2017) analysis of sensitivity for buried sites, most of the Phase 1 APE has a very low potential (<1) for buried archaeological site indicators. The two of the three APE locations that lie on Holocene geology have a high (7.5) potential for buried archaeological sites and include the easternmost extent of the Mount Hannah Distribution Improvements area and a small portion of the Adams Springs Distribution Improvements area along a small portion of Harington Flat Road between Creek View Drive and Casentini Drive and a small portion of Lema Lane. The third location that lies on Holocene geology is at the very southern end of the Alpine Meadows Distribution Improvements on Gifford Springs Road. This location has only a moderate (3.9) potential for buried archaeological resources.

No archaeological site constituents were found during the field survey. Previously recorded site P-17-002873 was recorded near the APE. Examination of the record for P-17-002873 showed that the prehistoric archaeological portion of this resource was located approximately 80 feet north of the APE and consisted of a total of five archaeological specimens. The historical components of this resource are even further from the APE than the prehistoric portion. As these items were located well outside the APE, no recommendations are warranted for this resource.

No newly discovered archaeological site constituents were found during the survey. While Origer & Associates determined there would be no impact to existing known archaeological resources and did not identify any new resources, there is always the possibility of accidental discovery of archaeological resources during construction. In the event resources are discovered, mitigation measure CR2 would reduce such impact to less than significant. Also, see the discussion of Tribal Cultural Resources.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

There are no known human remains in the project area. However, the remote possibility exists that human remains could be discovered during construction. In such an event, Mitigation Measure CR3 would reduce such impact to a less than significant level.

Cumulative Impacts

There are no adverse cumulative environmental impacts to cultural resources resulting from implementation of the proposed project.

Mitigation Measures

CR1

The project plans shall designate the area around Hoberg's Resort identified in Origer & Associates report as an Environmentally Sensitive Area (ESA). All ground disturbing activities within the ESA shall be subject to monitoring by a professional archaeologist. A Middletown Rancheria Tribal monitor shall be provided access for all ground disturbing activities within the ESA.

CR2

The project plans and specifications shall provide that in the event prehistoric-era or historic-era archaeological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the 60 feet of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact the CAWD. The CAWD shall contact a qualified professional who meets the Secretary of the Interior's Standards for Archaeology and the requirements under 36 CFR 800.13 followed. Work shall not commence in the vicinity of the inadvertent discovery until a qualified archaeologist completes a significance evaluation of the find(s) pursuant to Section 106 of the National Historic Preservation Act (36 CFR 60.4).

CR3

If human remains are encountered during grading, excavation or trenching, all construction activity shall cease and the contractor shall immediately contact the CAWD and the Lake County Coroner's Office. If the remains are determined by the Coroner's Office to be of Native American origin, the Native American Heritage Commission shall be contacted and the procedures outlined in CEQA §15064.5 (d) and (e) shall be implemented by the CAWD or its designee.

VI ENERGY

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Setting

The California Energy Commission (Energy Commission) was charged with developing the states Renewable Energy Program in 1998, following deregulation of electric utilities. The Energy Commission provides a brief history of its actions with regard to the Renewable Energy Program:

In 2002, California established its Renewables Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent by 2017. The Energy Commission's 2003 Integrated Energy Policy Report recommended accelerating that goal to 2010, and the 2004 Energy Report Update urged increasing the target to 33 percent by 2020. Governor Schwarzenegger, the Energy Commission, and the California Public Utilities Commission (CPUC) endorsed this enhanced goal for the state as a whole. Achieving these renewable energy goals became even more important with the enactment of AB 32 (Núñez, Chapter 488), the California Global Warming Solutions Act of 2006. This legislation sets aggressive greenhouse gas reduction goals for the state and its achievements will depend in part on the success of renewable energy programs.

SBX1-2 was signed by Governor Edmund G. Brown, Jr., in April 2011 to codify the ambitious 33 percent by 2020 goal. In his signing comments, Governor Brown noted that "This bill will bring many important benefits to California, including stimulating investment in green technologies in the state, creating tens of thousands of new jobs, improving local air quality, promoting energy independence, and reducing greenhouse gas emissions."

This new RPS applied to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new RPS goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.

In October 2015, Governor Brown signed Senate Bill 350 to codify ambitious climate and clean energy goals. One key provision of SB 350 is for retail sellers and publicly

owned utilities to procure “half of the state’s electricity from renewable sources by 2030.”¹¹

These goals were accelerated in 2016 with passage of SB 32 requiring lowering greenhouse gas emissions to 40 percent below 1990 levels by 2030. Further, “In 2018, Senate Bill 100...set a planning target of 100 percent zero-carbon electricity resources by 2045 and increased the 2030 renewables target from 50 percent to 60 percent. On the same day of signing SB 100, then-Governor Brown signed Executive Order B-55-18 with a new statewide goal to achieve carbon neutrality (zero-net GHG emissions) by 2045 and to maintain net negative emissions thereafter. The executive order covers all sectors of the economy¹².”

Today, California’s energy policies are intertwined with goals of reducing greenhouse gases. The Energy Commission produces the biennial Integrated Energy Policy Report. The report contains an integrated assessment of major energy trends and issues facing California’s electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state’s economy; and protect public health and safety. The most recent report was divided into two sections. Volume I was produced in 2018 and Volume II was released in February 2019¹³.

CURRENT ENERGY USAGE AND SOURCES

California uses the least electricity of any state with a 2016 (most recent electricity California Energy Commission date) usage of 6,536 kWh per capita¹⁴. The census states that Lake County had an estimated population of 64,246 in 2017¹⁵ and the California Energy Commission indicates the Lake County used a total (residential and non-residential) of 470.800523 gigawatt hours (GWh) of electricity in 2017¹⁶ for a per capita use of approximately 7,328 kWh, somewhat above the state average.

Lake County is provided electricity by PG&E. As of 2017, PG&E’s power mix was three years ahead of California’s goal and supplied 33 percent of its electricity from renewable resources under the California Renewables Portfolio Standard. PG&E intends to supply 50 percent renewable electricity by 2030, consistent with California’s goals. Additionally, in 2017, 27 percent of PG&E electricity was nuclear power and 18 percent was hydroelectric, for a total of 78 percent greenhouse gas free electricity¹⁷. In contrast, the overall power mix in California is 29 percent renewable, 15 percent hydroelectric and nine percent nuclear, or 53 percent greenhouse gas free electricity. In 2018, total renewable electricity in California was 34 percent¹⁸.

¹¹ <https://www.energy.ca.gov/renewables/history.html>

¹² Ibid.

¹³ https://www.energy.ca.gov/2018_energypolicy/

¹⁴ https://www.energy.ca.gov/almanac/electricity_data/us_per_capita_electricity.html

¹⁵ <https://www.census.gov/quickfacts/lakecountycalifornia>

¹⁶ <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>

¹⁷ https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2018/10-18_PowerContent.pdf

¹⁸ https://www.energy.ca.gov/2018publications/CEC-100-2018-001/Exec_Sumry_CEC-100-2018-001-V2-CMF.pdf

Analysis

a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Project construction would only account for a minor use of energy, primarily associated with fuels used in construction vehicles. All construction vehicles would be California-compliant to ensure state goals of energy efficiency and air quality are maintained. The water mains would not require energy after installation. Proposed Phase 2 pump retrofits would not require long-term energy inputs—water distribution systems are generally passive after initial pumping to the water storage tanks. No pumping facilities or treatment facilities that would use electricity and no expansion of water service that would require additional water pumping or treatment at existing facilities are proposed by the project. The project is necessary to update distribution system resiliency in the existing water system and would not result in a wasteful, inefficient, or unnecessary consumption of energy resources. Improvements to the water systems would reduce leakage in the existing infrastructure and lead to an overall reduction of energy used to produce and treat water, a beneficial impact.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. As indicated above, electricity to CAWD facilities is provided by PG&E and is exceeding the state's renewable energy goals. Because the project would use so little energy and that energy is supplied according to California's renewable energy policies, the project will not conflict with or obstruct the state's plan for renewable energy or energy efficiency.

Cumulative Impacts

There are no adverse cumulative environmental impacts to energy resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to energy have been identified; therefore, no mitigation is required.

VII GEOLOGY & SOILS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Would the project result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

REGIONAL GEOLOGY AND TOPOGRAPHY

The proposed project site is located within the Coast Ranges Geomorphic Province of California. This province is characterized by northwest trending topographic and geologic features, and it includes many separate ranges, coalescing mountain masses, and several major structural basins. The province is bounded on the east by the Great Valley Geomorphic Province and on the west by the Pacific Ocean. The Coast Ranges region extends north into Oregon and south to the Transverse Ranges and Ventura County.

The structure of the northern Coast Ranges region is extremely complex due to continuous tectonic deformation imposed over a long period of time. The initial tectonic episode in the northern Coast Ranges was a result of the plate convergence which is believed to have begun during late Jurassic time. This process involved eastward thrusting of oceanic crust beneath the continental crust (Klamath Mountains and Sierra Nevada) and the scraping off of materials that are now accreted to the continent (northern Coast Ranges). This is a seismically active region characterized by northwest-trending faults. Regional Geology is shown on Figure VII-1 and keyed to the geologic map units below¹⁹. As shown on Figure VII-1, the majority of the CAWD is located on Quaternary volcanic flow rocks (Qv).

Map Symbol	General Lithology	Age	Description
J	marine sedimentary and metasedimentary rocks	Jurassic	Shale, sandstone, minor conglomerate, chert, slate, limestone; minor pyroclastic rocks.
KJf	marine sedimentary and metasedimentary rocks	Cretaceous-Jurassic	Franciscan Complex: Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate. Includes Franciscan melange, except where separated.
Ku	marine sedimentary and metasedimentary rocks	Upper Cretaceous	Upper Cretaceous sandstone, shale, and conglomerate.
QPc	nonmarine (continental) sedimentary rocks	Pliocene-Pleistocene	Pliocene and/or Pleistocene sandstone, shale, and gravel deposits; mostly loosely consolidated.
Qv	volcanic rocks	Quaternary	Quaternary volcanic flow rocks; minor pyroclastic deposits.
um	plutonic rocks	Mesozoic	Ultramafic rocks, mostly serpentine. Minor peridotite, gabbro, and diabase; chiefly Mesozoic.

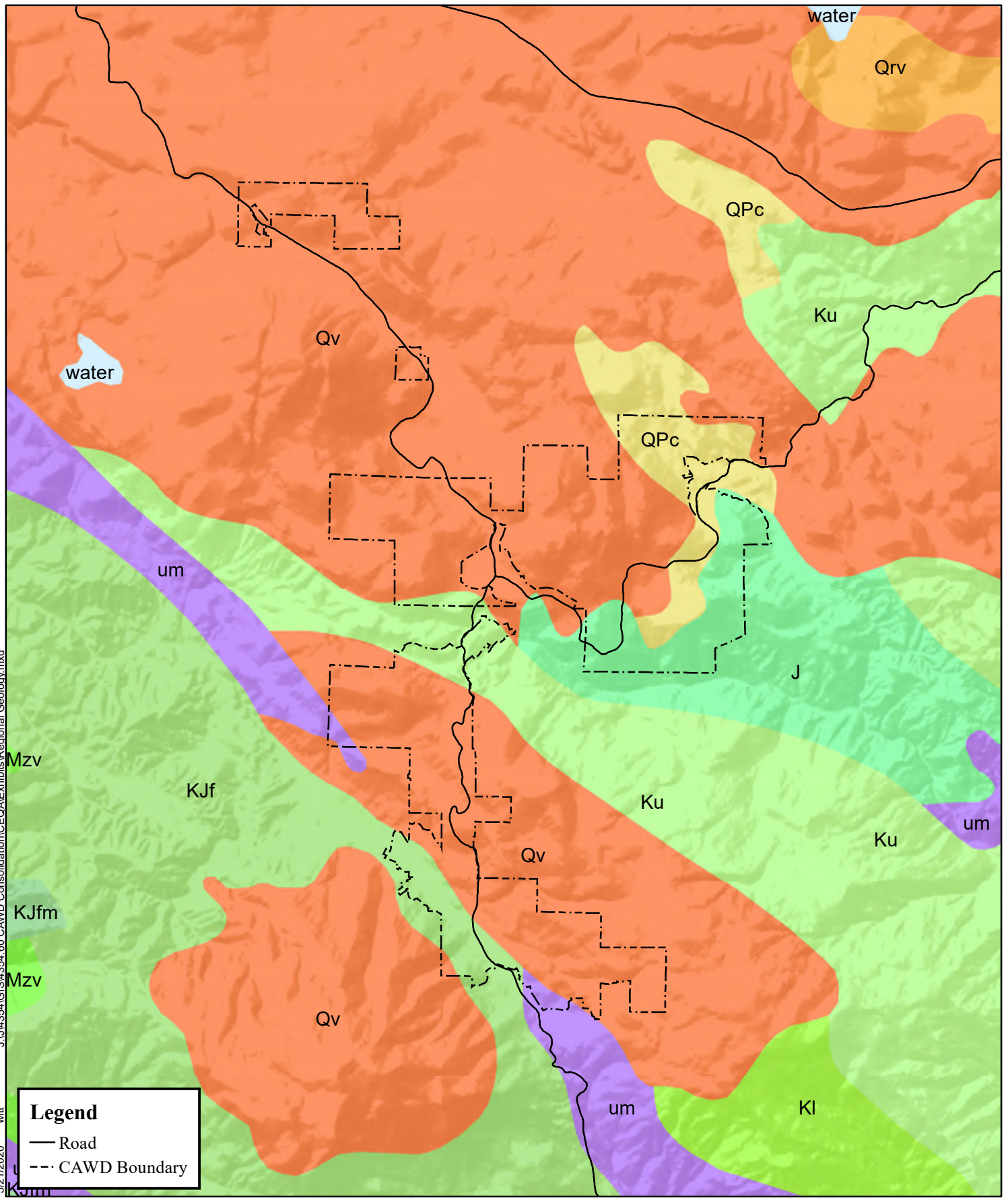
Topography is highly varied in that project area, ranging from nearly level to steep. Elevations range from approximately 2,500 feet above sea level to surrounding mountain peaks of nearly 4,000 feet.

SOILS IN THE PROJECT AREA

The United States Department of Agriculture, Natural Resources Conservation Service (USDA), maps soils across the county. USDA mapped soils in the southern portion of the project area are shown on Figure VII-2 and the northern portion on Figure VII-3. Map Symbols shown on the soils maps are keyed to the soil type below.

¹⁹ *Geologic Map of California. California Geological Survey 150th Anniversary Edition.* Charles W. Jennings, with modifications by Carlos Gutierrez, William Bryant, George Saucedo and Chris Wills. 2010.

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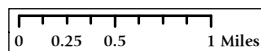


Legend

- Road
- - - CAWD Boundary

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

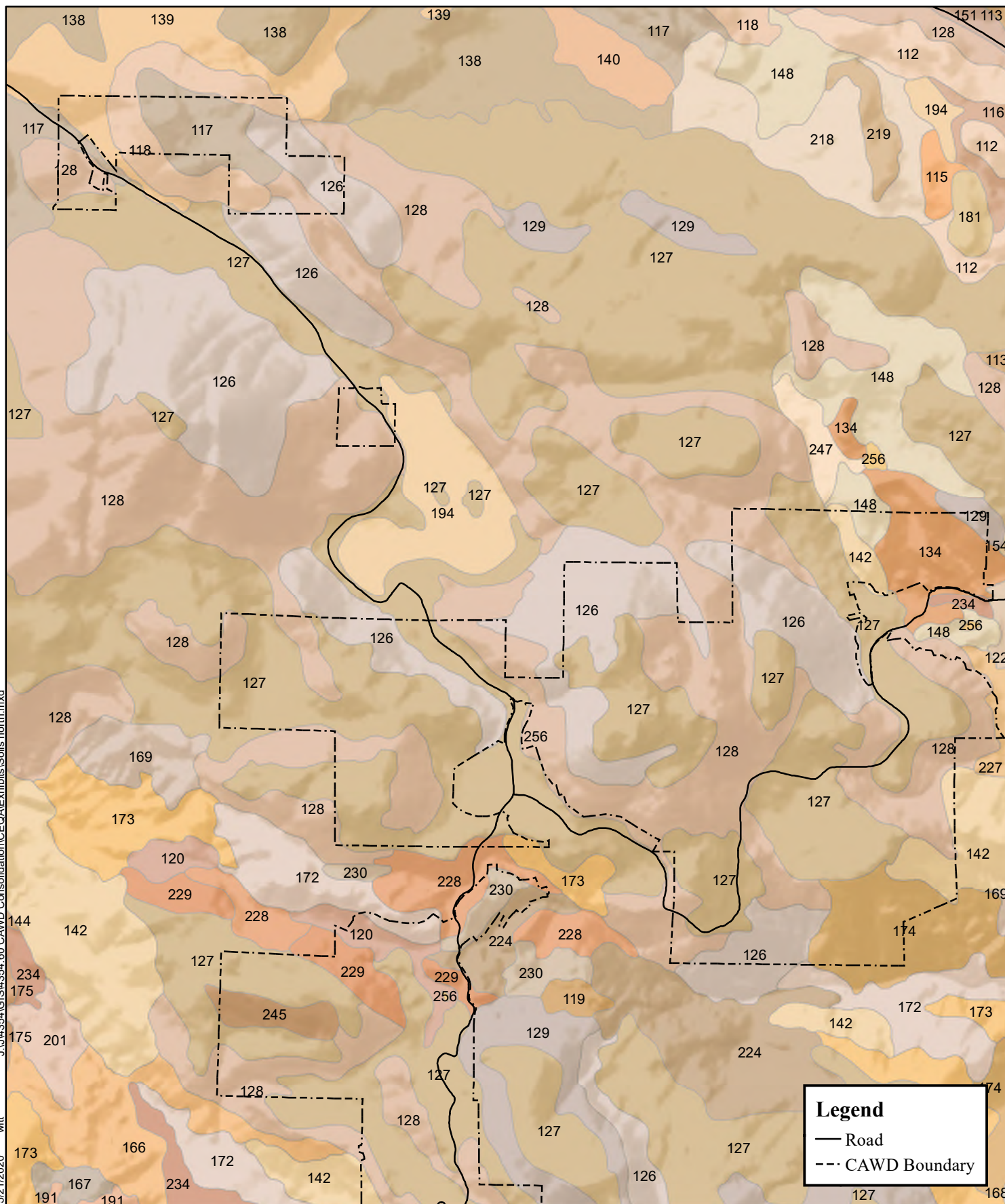
Data Source Information:
Department of Conservation



**FIGURE VII-1
REGIONAL GEOLOGY**

CAWD
MAY 2020

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Legend

— Road

- - - CAWD Boundary

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

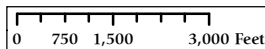
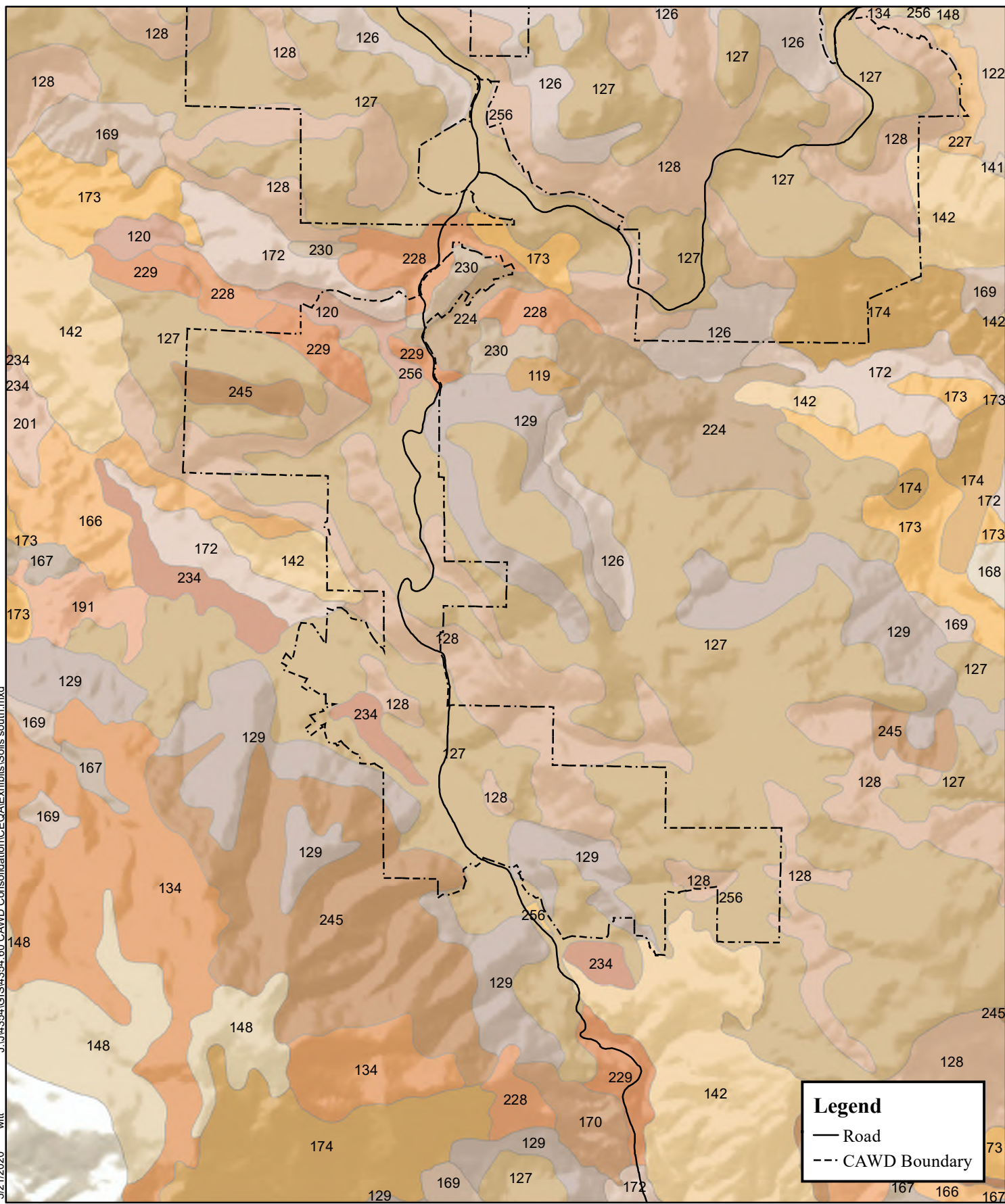


FIGURE VII-2
SOILS, NORTH

CAWD
MAY 2020

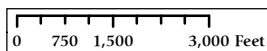
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Legend

- Road
- - - CAWD Boundary

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US



**FIGURE VII-3
SOILS, SOUTH**

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CAWD District Consolidation Improvements
Cobb Area Water District

Map Symbol	Soil Type	Map Symbol	Soil Type
101	Aiken-Sobrante association, 5 to 15 percent slopes	169	Maymen-Etsel-Snook complex, 30 to 75 percent slopes
112	Benridge-Konocti association, 15 to 30 percent slopes	171	Maymen-Hopland-Etsel association, 15 to 50 percent slopes
113	Benridge-Konocti association, 30 to 50 percent slopes	172	Maymen-Hopland-Mayacama complex, 9 to 30 percent slopes
115	Benridge-Sodabay loams, 15 to 30 percent slopes	173	Maymen-Hopland-Mayacama association, 20 to 60 percent slopes, MLRA 15
116	Benridge variant loam, 2 to 15 percent slopes	174	Maymen-Hopland-Mayacama association, 50 to 75 percent slopes
117	Bottlerock-Glenview-Arrowhead complex, 5 to 30 percent slopes	175	Maymen-Millsholm-Bressa complex, 30 to 50 percent slopes
118	Bottlerock-Glenview-Arrowhead complex, 30 to 50 percent slopes	177	Millsholm-Bressa loams, 30 to 50 percent slopes
119	Bressa-Millsholm loams, 8 to 15 percent slopes	178	Millsholm-Bressa-Hopland association, 30 to 50 percent slopes
120	Bressa-Millsholm loams, 15 to 30 percent slopes	181	Neice-Sobrante-Hambright complex, 15 to 30 percent slopes
122	Clear Lake variant clay, drained	182	Neice-Sobrante-Hambright complex, 30 to 75 percent slopes
126	Collayomi complex, 50 to 75 percent slopes	191	Neuns-Speaker gravelly loams, 15 to 30 percent slopes
127	Collayomi-Aiken-Whispering complex, 5 to 30 percent slopes	194	Oxalis variant silt loam
128	Collayomi-Aiken-Whispering complex, 30 to 50 percent slopes	201	Sanhedrin-Kekawaka-Speaker complex, 15 to 30 percent slopes
129	Collayomi-Whispering complex, 30 to 50 percent slopes	209	Skyhigh-Millsholm loams, 15 to 50 percent slopes
134	Forward variant-Kidd association, 30 to 50 percent slopes	211	Skyhigh-Sleeper-Millsholm association, 1 to 35 percent slopes, MLRA 15
138	Glenview-Arrowhead complex, 5 to 15 percent slopes	213	Sleeper variant-Sleeper loams, 5 to 15 percent slopes
139	Glenview-Arrowhead complex, 15 to 30 percent slopes	218	Sobrante-Guenoc-Hambright complex, 2 to 15 percent slopes
140	Glenview-Bottlerock complex, 2 to 5 percent slopes	219	Sobrante-Guenoc-Hambright complex, 15 to 30 percent slopes
141	Henneke-Montara complex, 8 to 15 percent slopes	223	Sodabay-Konocti association, 5 to 30 percent slopes
142	Henneke-Montara-Rock outcrop complex, 10 to 50 percent slopes, MLRA 15	224	Speaker-Marpa-Sanhedrin gravelly loams, 30 to 50 percent slopes
144	Jafa loam, 2 to 5 percent slopes	226	Speaker-Maymen-Marpa association, 50 to 75 percent slopes
145	Jafa loam, 5 to 15 percent slopes	227	Speaker-Maymen-Millsholm association, 30 to 50 percent slopes
148	Kidd-Forward complex, 5 to 30 percent slopes	228	Speaker-Sanhedrin gravelly loams, 50 to 75 percent slopes
151	Konocti-Benridge complex, 50 to 75 percent slopes	229	Speaker-Sanhedrin-Maymen association, 30 to 50 percent slopes
153	Konocti-Hambright complex, 15 to 30 percent slopes	230	Speaker-Speaker variant-Sanhedrin association, 5 to 30 percent slopes
154	Konocti-Hambright-Rock outcrop complex, 30 to 75 percent slopes	234	Still gravelly loam
166	Maymen-Etsel-Mayacama complex, 15 to 30 percent slopes	245	Whispering-Collayomi complex, 50 to 75 percent slopes
167	Maymen-Etsel-Mayacama complex, 20 to 60 percent slopes	247	Wolfcreek loam
168	Maymen-Etsel-Snook complex, 15 to 30 percent slopes	256	Water

Collayomi complex (Map Symbol 126) and Collayomi-Aiken-Whispering complex (Map Symbol 127 and 128) make up the majority of the soils within the project areas. Collayomi soils occur on hills and mountains in the Clear Lake volcanic fields. Slopes are five to 75 percent. Elevations are 1,200 to 4,600 feet. The soils are formed in material weathered from andesite, dacite, and basalt rocks. Characteristics include well drained, medium to very rapid runoff, and moderate permeability. Aiken soils are on broad gently sloping tabular ridges with moderately steep to steep sideslopes of two to 70 percent at elevations of about 1,200 to 5,000 feet. They formed in material weathered from basic volcanic rocks, principally tuff breccia. Characteristics include well drained, slow to rapid runoff and moderately slow permeability. Whispering soils consist of moderately deep, well drained soils formed in material weathered from basic igneous rocks. Whispering soils are on hills and mountains and have slopes of five to 75 percent. Characteristics include: well drained, slow to rapid runoff and moderate permeability²⁰.

LIQUEFACTION

Liquefaction is the process where water is combined with unconsolidated soils, generally from ground motions and pressure, which causes the soils to behave like quicksand. Liquefaction potential is determined from a variety of factors including soil type, soil density, depth to the groundwater table, and the expected duration and intensity of ground shaking. Liquefaction is most likely to occur in deposits of water-saturated alluvium or areas of considerable artificial fill.

SEISMIC CONDITIONS

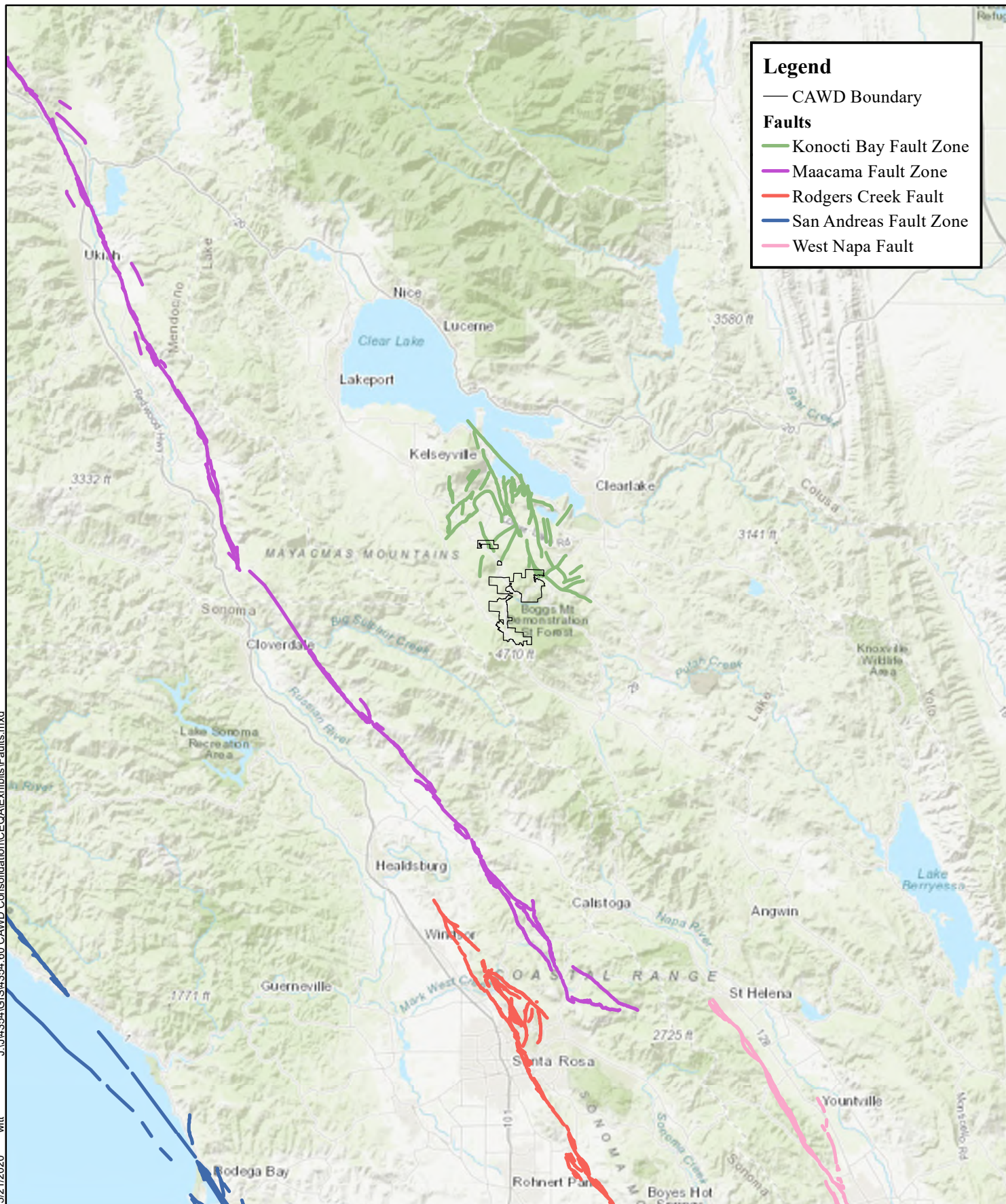
Similar to all of Lake County, the project area is within a seismically active area. The nearest faults considered to be 'Holocene-active' (experiencing surface rupture within about the last 11,000 years) are shown below and on Figures VII-4 and VII-5. Other faults in the project area are considered to be in the 700,000 to two million year old range and considered less likely to result in seismic activity. Faults with the potential to produce earthquakes are described below.

Fault	Approximate Distance to Fault (miles)	Direction to Fault
Konocti	5	North
Mayacama	12	West
Rodgers Creek	27	South
W. Napa	35	South
San Andreas	40	West

Throughout Lake County and the entire Northern California region, ground shaking from earthquakes represents a significant geologic hazard to developments. The intensity of ground shaking will be dependent on several factors such as: 1) distance from the site to the earthquake focus; 2) depth of earthquake focus; 3) earthquake magnitude; 4) response of the underlying soil and rock; and, 5) topography and local geologic structure.

²⁰ *Soil Survey*. United States Department of Agriculture, Natural Resources Conservation Service.
<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

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Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Faults: USGS

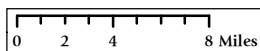
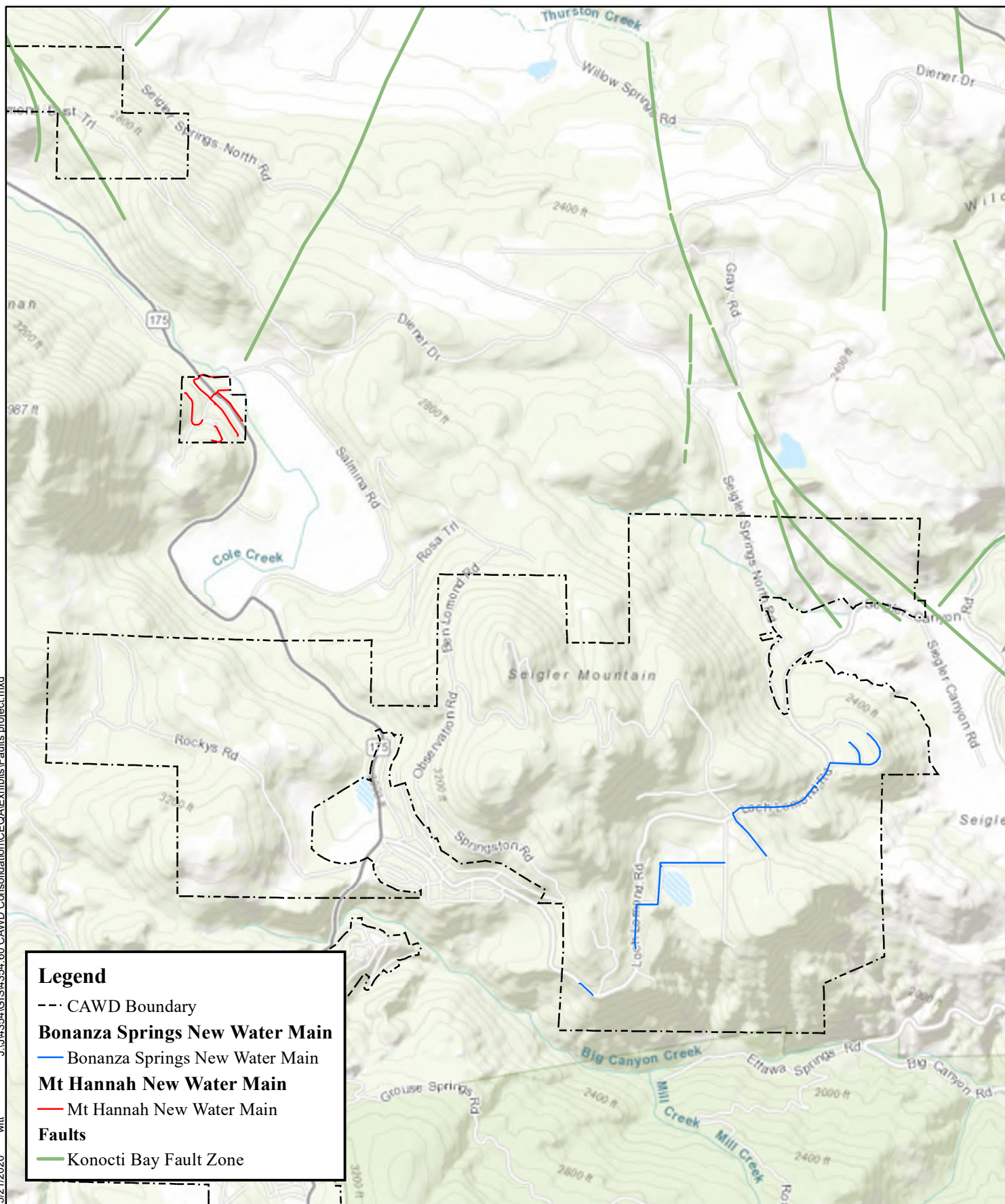


FIGURE VII-4
EARTHQUAKE FAULTS

CAWD

MAY 2020

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Legend

--- CAWD Boundary

Bonanza Springs New Water Main

— Bonanza Springs New Water Main

Mt Hannah New Water Main

— Mt Hannah New Water Main

Faults

— Konocti Bay Fault Zone

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Faults: USGS

**FIGURE VII-5
EARTHQUAKE FAULTS
PROJECT SITES**

CAWD

MAY 2020

Regulatory Setting

FEDERAL REGULATIONS

Clean Water Act 402 and National Pollutant Discharge Elimination System

The CWA is discussed in detail in the Hydrology and Water Quality section of this document. However, because CWA Section 402 is directly relevant to excavation, additional information is provided below. Amendments to the CWA in 1987 added Section 402p, which establishes a framework for regulating municipal and industrial stormwater discharges under National Pollutant Discharge Elimination System (NPDES) program. The EPA has delegated to the State Water Resources Control Board (SWRCB) the authority for the NPDES program in California, which is implemented by the state's nine regional water quality control boards. Under the NPDES Phase II Rule, construction activity disturbing one acre or more must be permitted under the state's General Construction Permit. General Construction Permit applicants are required to prepare a Notice of Intent and a Stormwater Pollution Prevention Plan (SWPPP) and implement and maintain Best Management Practices (BMPs) to avoid adverse effects on receiving water quality as a result of construction activities, including earthwork.

STATE REGULATIONS

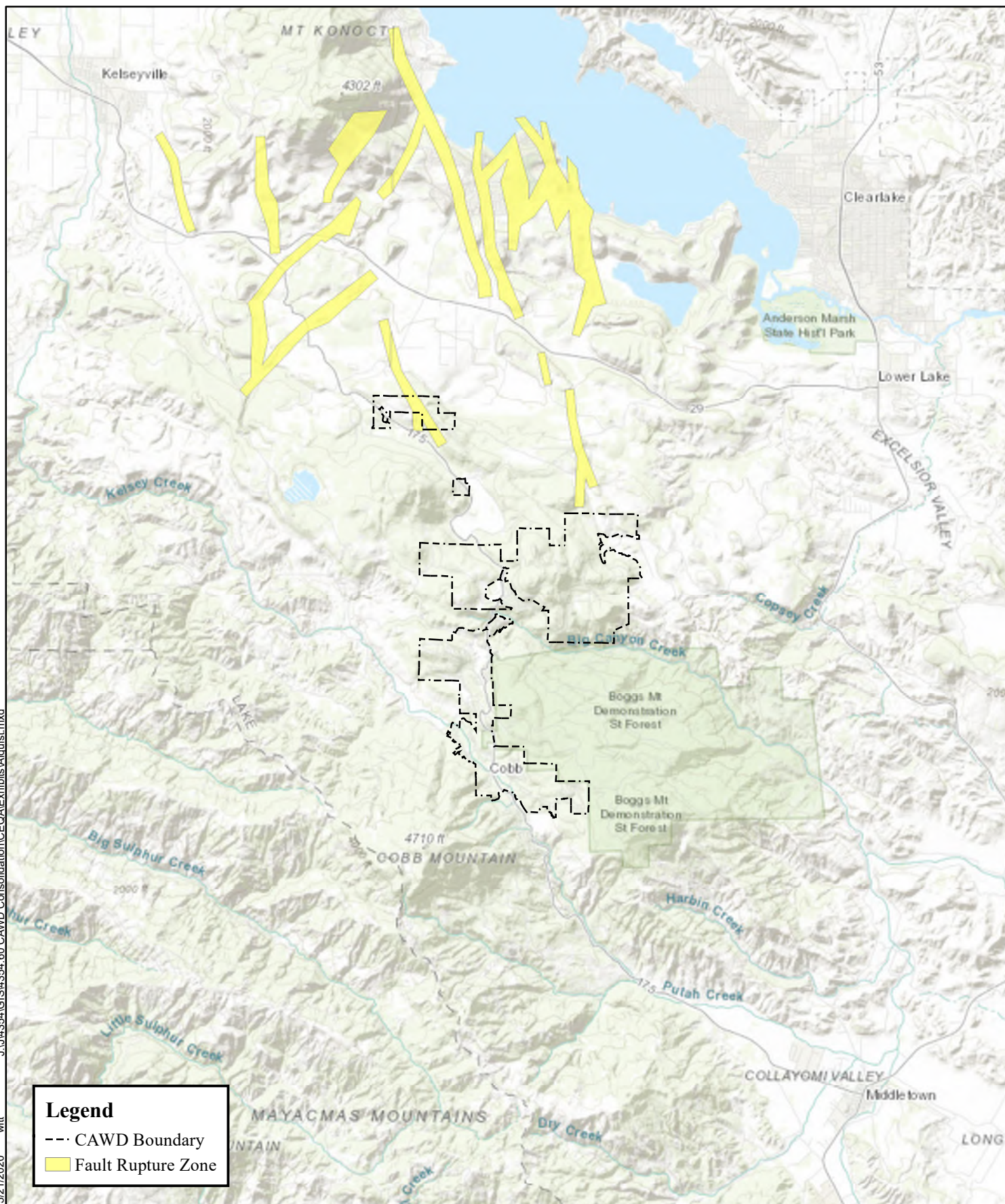
Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (prior to January 1, 1994, known as the Alquist-Priolo Special Studies Zones Act – CCR, Title 14, Section 3600) sets forth the policies and criteria of the State of California in regard to building within active fault zones mapped pursuant to the Act. The Alquist-Priolo Earthquake Fault Zoning Act outlines cities' and counties' responsibilities in prohibiting the location of developments and structures for human occupancy across the trace of active faults. The policies and criteria are limited to potential hazards resulting from surface faulting or fault creep within Earthquake Fault Zones delineated on maps officially issued by the State Geologist. Figure VII-6 shows the project relative to the nearest mapped fault rupture zone.

Seismic Hazard Mapping Act

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC 2690 2699.6) is intended to reduce damage resulting from earthquakes. The Seismic Hazards Mapping Act addresses earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites in Seismic Hazard Zones until appropriate site-specific geologic or geotechnical investigations have been carried out, and measures to reduce potential damage have been incorporated into the development plans.

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Projection: Lambert Conformal Conic
Datum: North American 1983
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Data Source Information:
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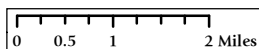


FIGURE VII-6
ALQUIST PRIOLO ZONES

CAWD

MAY 2020

California Building Code

The California Code of Regulations, Title 24, also known as the California Building Standard Code or the California Building Code (CBC), establishes guidance for foundation design, shear wall strength, and other structurally related concerns. The CBC modified regulations for specific conditions found in California and included a large number of more detailed and/or more restrictive regulations. For example, CBC includes common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil-related impacts. The CBC requires structures to be built to withstand ground shaking in areas of high earthquake hazards and the placement of strong motion instruments in larger buildings to monitor and record the response of the structure and the site of the seismic activity. Compliance with CBC regulations ensures the adequate design and construction of building foundations to resist soil movement. In addition, the CBC also contains drainage requirements in order to control surface drainage and to reduce seasonal fluctuations in soil moisture content.

Analysis

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

a.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.

The project area is not located within an Alquist-Priolo Zone, as shown on Figure VII-6 (the Hill 9 & 10 boundary at the northern portion is within a mapped zone but not a part of this project). None of the project components are intended for human occupancy. The project would be required to implement California Building Code Seismic Design Category Requirements standards into the project design for applicable features to minimize hazards associated with potential fault rupture, ground shaking, and liquefaction. Replacement of older water mains and equipment would increase the resiliency of the water systems with respect to seismic events. Based on incorporation of appropriate geotechnical design recommendations and engineering standards, the risk to the project from fault rupture is considered to be less than significant.

a.ii. Strong seismic ground shaking?

Similar to all of Lake County, the project location is subject to strong seismic ground shaking. As shown on Figure VII-5, parts of the Konocti Fault system are within the overall project area and nearest the Bonanza Springs water main and Mount Hannah water main projects. Other faults are more distant, as shown on Figure VII-4.

As indicated in a.i.) above, the project would be designed and constructed in strict adherence with current standards for earthquake-resistant construction and replacement of older water mains and equipment would increase the resiliency of the water systems with respect to seismic events. Risk to the project is considered to be less than significant.

a.iii. Seismic-related ground failure, including liquefaction?

As indicated in a.ii.) above, seismic ground shaking could occur in the project area. The project is not located in an area subject to liquefaction. Any risks of ground failure would be remediated, as indicated in a.i.) above.

a.iv. Landslides?

The project would primarily be constructed within areas with existing infrastructure and residential development. Landslides are not evident adjacent to project locations and the project would not increase the risk of landslides.

b. Would the project result in substantial soil erosion or the loss of topsoil?

The majority of all Phase I project locations are within existing roads or existing developed water infrastructure sites. Stormwater drainage in the area primarily consists of overland flow over the ground and roadway surfaces that concentrate in man-made drainage elements such as roadside gutters and drainage ditches. Some underground stormwater system exists, primarily related to under-road culverts and Highway 175 improvements but would not be impacted by the project. Surfaces would be restored to existing conditions once construction is complete to ensure there is no long-term erosion.

The Phase I projects would have a total disturbance area of approximately 2.91 acres. Each project would be bid and constructed separately as discrete projects. Coverage under the State Water Resources Control Board (SWRCB) Construction General Permit is triggered by projects over one acre, so would not be applicable to each individual project. It is anticipated that two projects could be constructed per year and would still have a disturbance area that would not subject them to coverage under the Construction General Permit, as shown below.

Project	Disturbance (SF)	Disturbance (acres)
Adams Spring	21,000	0.48
Mount Hannah	15,000	0.35
Alpine Meadows	13,000 -19,000	0.30-0.44
Pine View Heights	23,000	0.53

Each Phase I project would include an erosion control plan to be prepared by the contractor that would be consistent with the Construction General Permit but not subject to reporting requirements. The tank rehabilitation projects would similarly fall under the threshold of the Construction General Permit but would have only minimal opportunity for soil erosion due to the very limited scale of excavation occurring. The requirement of an erosion control plan would minimize the potential for erosion-related impacts to surface waters to the extent possible. Because the projects would comply with current regulations to limit erosion-related water quality impacts during and after construction, there would be no impact.

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?

The project area currently supports the existing development and water systems. The proposed projects would generally improve or replace water system components to provide additional reliability. Some new water distribution mains are included in the projects but would be designed to current regulations.

Appropriate design according to professional standards and regulations contained in the most recent edition of the California Building Code would ensure that any risk from on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse is less than significant.

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

Appropriate design according to professional standards and regulations contained in the most recent edition of the California Building Code would ensure that any risk from expansive soils is less than significant and improved from existing conditions.

e. Would the project 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?

Wastewater service in the project area is provided by individual septic systems. No new wastewater would be generated by the proposed project. Any construction occurring in the project area would be subject to septic system permitting through the existing County permitting process.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

There are no known paleontological resources or unique geologic features in the project area. Mitigation Measure GS1 is included to preserve any such features discovered during construction and reduces any potential impact to less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to geology and soils resulting from implementation of the proposed project.

Mitigation Measures

GS1

The project plans and specifications shall provide that in the event paleontological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact the CAWD. The CAWD shall contact a qualified professional geologist or paleontologist immediately after the find. Such consultant shall conduct an evaluation of significance of the site, and assess the necessity for mitigation. The contractor shall not resume construction activities until authorization to proceed is received from the CAWD.

VIII GREENHOUSE GAS EMISSIONS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
b. Would the project Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

To fully understand global climate change it is important to recognize the naturally occurring “greenhouse effect” and to define the greenhouse gases (GHG) that contribute to this phenomenon. The temperature on Earth is regulated by this “greenhouse effect,” which is so named because the Earth’s atmosphere acts like a greenhouse, warming the planet in much the same way that an ordinary greenhouse warms the air inside its glass walls. Like glass, the gases in the atmosphere let in light yet prevent heat from escaping.

Greenhouse gases are naturally occurring gases such as water vapor, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) that absorb heat radiated from the Earth’s surface. Greenhouse gases are transparent to certain wavelengths of the Sun’s radiant energy, allowing them to penetrate deep into the atmosphere or all the way to Earth’s surface. Clouds, ice caps, and particles in the air reflect about 30 percent of this radiation, but oceans and land masses absorb the rest (70 percent of the radiation received from the Sun) before releasing it back toward space as infrared radiation. The greenhouse gases and clouds effectively prevent some of the infrared radiation from escaping; they trap the heat near the Earth’s surface where it warms the lower atmosphere.

In addition to natural sources, human activities are exerting a major and growing influence on climate by changing the composition of the atmosphere and by modifying the land surface. Particularly, the increased consumption of fossil fuels (natural gas, coal, gasoline, etc.) has substantially increased atmospheric levels of greenhouse gases. Measured atmospheric levels of certain greenhouse gases such as CO₂, NH₄, and N₂O have risen substantially in recent decades. This increase in atmospheric levels of greenhouse gases unnaturally enhances the “greenhouse effect” by trapping more infrared radiation as it rebounds from the Earth’s surface and thus trapping more heat near the Earth’s surface.

California Implications

According to the Air Resources Board’s 2016 California GHG Emissions Inventory, in 2014, total California GHG emissions were 441.5 million metric tons of CO₂ equivalent (MMT_{CO2e}), a decrease of 2.8 MMT_{CO2e} compared to 2013. This represents an overall decrease of 9.4 percent since peak levels in 2004. During the 2000 to 2014 period, per capita GHG emissions in California have continued to drop from a peak in 2001 of 13.9 tons per person to 11.4 tons per person in 2014; an 18 percent decrease²¹. State regulations have begun lowering GHG California’s contribution to global GHG levels but managing GHG emissions remains an ongoing priority in California.

²¹ https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_trends_00-14_20160617.pdf

State Regulations

CLIMATE CHANGE REGULATORY FRAMEWORK

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act, which created a comprehensive, multi-year program to reduce GHG emissions in California. AB 32 required the California Air Resources Board (ARB) to develop a Scoping Plan, adopted in 2008, that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. In 2016, the Legislature passed SB 32, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels by 2030. The Scoping Plan was updated in 2017. In 2018, Senate Bill 100 set a planning target of 100 percent zero-carbon electricity resources by 2045 and increased the 2030 renewables target from 50 percent to 60 percent. Executive Order B-55-18 set a new statewide goal to achieve carbon neutrality (zero-net GHG emissions) by 2045 and to maintain net negative emissions thereafter. The Scoping Plan recognizes that local GHG reduction commitments and climate action plans are essential to the state meeting its targeted emissions reductions

California's energy policies are intertwined with goals of reducing greenhouse gases. These goals were accelerated in 2016 with passage of SB 32 requiring lowering greenhouse gas emissions to 40 percent below 1990 levels by 2030. Further, "In 2018, Senate Bill 100...set a planning target of 100 percent zero-carbon electricity resources by 2045 and increased the 2030 renewables target from 50 percent to 60 percent. On the same day of signing SB 100, then-Governor Brown signed Executive Order B-55-18 with a new statewide goal to achieve carbon neutrality (zero-net GHG emissions) by 2045 and to maintain net negative emissions thereafter. The executive order covers all sectors of the economy... Executive Order B-55-18 follows the spirit of what is required at a global scale to achieve the climate goals of the Paris Agreement, in which signatory nations worldwide agree to sufficiently reduce GHG emissions to avoid catastrophic climate change. This is also consistent with a special report by the Intergovernmental Panel on Climate Change, which found that to avoid catastrophic climate change, global carbon dioxide emissions must decline by about 45 percent below 2010 levels by 2030 and reach net zero by about 2050²²."

LOCAL REGULATIONS

ARB works with 35 air pollution districts in California to enforce air pollution regulations. The LCAQMD enforces air quality regulations in Lake County. More metropolitan air pollution districts, cities and counties have adopted Local Climate Action Plans consistent with ARB Scoping Plan goals. Due to the rural nature of the project area, neither the County of Lake nor the City of Clearlake have developed a Climate Action Plan.

Because the LCAQMD has not developed GHG regulations or a Climate Action Plane, it has not identified a significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to greenhouse gas emissions. Similarly, the county has not prepared a climate action plan so there is no established local threshold of significance for GHGs. The adjacent Sacramento Metropolitan Air Quality Management District²³ (SMAQMD) adopted GHG thresholds of significance in 2012 that are contained in the SMAQMD's CEQA Guide²⁴. For land development and construction projects, that threshold has been established as 1,100 metric tons per (MT/yr) year for construction and operational phases. Stationary sources (projects that don't involve transportation impacts) have been determined to have an operational threshold of

²² Ibid.

²³ The Sacramento Metropolitan Air Quality Management District is used here because the BAAQMD has not adopted a threshold for construction-related GHG emissions in its CEQA Guidelines utilized in the Air Quality section of this document.

²⁴ www.airquality.org/Businesses/CEQA-Land-Use-Planning/CEQA-Guidance-Tools

10,000 MT/yr. The CEQA Guide also establishes operational screening levels for various projects to determine if GHG analysis is necessary²⁵. While neither the LCAQMD nor Lake County has adopted these thresholds, they are a useful guideline for assessing this project's potential impacts.

Analysis

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The project is not characteristic of the land development projects contained in the SMAQMD screening levels so quantification of project emissions is required. Project construction GHG emissions were modeled using the Roadway Construction Emissions Model developed by SMAQMD for transportation and pipeline projects. For purposes of this analysis, the worst-case (largest) of the Phase I projects was quantified to determine significance.

The project is not characteristic of the land development projects contained in the SMAQMD screening levels so quantification of project emissions is required. Project construction GHG emissions were modeled using the Roadway Construction Emissions Model developed by SMAQMD for transportation and pipeline projects. For purposes of this analysis, the worst-case (largest) of the Phase I projects was quantified to determine significance. Emissions shown below assume non mitigated emissions with one Phase 1 project per year with an approximately five month construction period. The model was based on construction parameters associated with the Pine View Heights project, the worst-case project with regard to construction-related emissions. Other projects would occur annually and would have reduced emission levels from those associated with the Pine View Heights project.

Modeled worst-case construction-related CO₂e emissions are shown below and are expected to be 151.47 MT/yr CO₂e, under SMAQMD's 1,100 MT/yr threshold and therefore are considered to be less than significant. If two of the distribution projects were constructed concurrently, a worst-case of 302.47 MT/yr CO₂e would be emitted, remaining below the threshold of significance. Because the project replaces existing water distribution systems or expands those systems to existing parcels and does not induce growth, operational emissions would be essentially unchanged and were not quantified.

SMAQMD Thresholds of Significance			Project Emissions	
	Construction Average Daily Emissions (MT/yr)	Operational Annual Emissions (MT/yr)	RoadMod ²⁶ Construction Emission Estimates (MT/yr)	RoadMod Operational Emission Estimates (MT/yr)
GHG as CO ₂ e	1,100	1,100	151.47	Not quantified

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

Lake County has not adopted a Climate Action Plan. Because the project does not exceed the SMAQMD's construction threshold of 1,100 MT/yr and operational emissions would be essentially

²⁵ <http://www.airquality.org/LandUseTransportation/Documents/Ch4+Ch6OperationalScreening4-2018.pdf>

²⁶ Roadway Construction Emissions Model v 8.1.0

unchanged, the project would not impede implementation of a local climate action plan, should one be developed.

Cumulative Impacts

As indicated in a.) above, the project would result in short-term emission of GHGs associated with project construction. Construction-related emissions are not considered to be cumulatively considerable based on the limited nature of the construction project and emissions expected to below the 1,100 MT/yr threshold.

Mitigation Measures

No adverse environmental impacts to greenhouse gas emissions have been identified; therefore, no mitigation is required.

IX HAZARDS & HAZARDOUS MATERIALS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Would the project 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Would the project 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project area is predominantly rural with developed residential areas, limited commercial services and a large golf course. The State Water Board's GeoTracker system implements Government Code Section 65962.5 by identifying the locations of known hazardous materials sites. Sites listed on California's GeoTracker system are shown on Figure IX-1.

REGULATORY SETTING

Federal Regulations

Hazardous materials in the project area are subject to applicable federal regulations, including the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act. Other applicable federal regulations are contained primarily in CFR Titles 29, 40, and 49.

State Regulations

California regulations are as stringent as or more stringent than federal regulations. The EPA has granted the State of California primacy oversight responsibility for administering and enforcing hazardous waste management programs. State regulations require planning and management to ensure that hazardous wastes are handled, stored, and disposed of properly to reduce risks to human and environmental health.

Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The project would improve existing water distribution systems and other water system infrastructure within the CAWD and is not associated with hazardous materials. Construction of the proposed project would include the use and short-term storage of hazardous materials. These materials could include, but are not limited to, lubricants, adhesives, paints, asphalt, fuel, and toxic solvents. The proposed projects are required to comply with federal, state, and local regulations regarding the storage, handling, disposal, and cleanup of hazardous materials. No routine transport, use or disposal of hazardous materials would be associated with this project. The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b. Would the project 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?

As indicated above, the project would not introduce new long-term hazardous materials or hazardous materials handling. The project would make improvements to the existing water systems that do not currently, and would not in the future, utilize hazardous materials. There is the potential for a fuel/oil spill during construction from construction vehicles and equipment. Mitigation Measure HM1 would reduce such impact to a less than significant level.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The project would not result in emissions or handling of hazardous materials within one quarter mile of an existing or proposed school. The project includes improvements of the existing water systems and would not emit hazardous emissions or handle hazardous or acutely hazardous materials.

- d. Would the project 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?**

There are two reported hazardous materials sites listed by the State Water Resources Control Board GeoTracker system as shown on Figure IX-1. Both sites are closed leaking underground storage tank (LUST) sites. The site located at 9564 Highway 175 (Regional Board Case 170104) was a leaking kerosene tank that was abated and closed in 2000. The other site is located at 16390 Highway 175 (Regional Board Case 170030) related to a leaking gasoline tank identified in 1981, remediated and closed in 2011. Because both LUST sites have been remediated and closed, they do not represent a potential hazard to the project.

There is the possibility with any construction project that contaminated soils would be found during construction from unknown sources. In that event, Mitigation Measure HM1 requires the contractor to cease work and contact CAWD and the Regional Board to develop a plan to dispose of the soils and ensure worker safety and protection of the environment.

- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

The nearest public use airport, Lampson Field, is located between the communities of Kelseyville and Lakeport and is approximately 11 linear miles northwest of the nearest portion of the project area. No portions of the project are located within Lampson Field's airport land use plan area. Therefore, there would be no impact.

- f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

The Lake County Emergency Response Plan facilitates response by the Lake County Department of Health Services when medical and health services are required as a result of catastrophic events. The primary threats to Lake County include earthquakes and aftershocks, hazardous materials releases, transportation accidents, levee or dam failure and floods, landslides, national security incidents, and wildfires. An efficient roadway and circulation system is vital for the evacuation of residents and the mobility of fire suppression, emergency response, and law enforcement vehicles. The CAWD shall require that the contractor develop a traffic management plan that ensures the existing roadway system within the project areas shall be kept accessible to residents and to all first responder units in the case of a wildland fire, earthquake event, hazardous materials release, transportation accident, landslide or national security incident by the incorporation of half-width improvements and traffic control utilization. Additionally, encroachment permits required from the County and Caltrans would ensure appropriate traffic control and emergency access are maintained. As such, this impact would be less than significant.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project is intended to improve the existing water systems and would include fire hydrants where they would be supported by adequate water flow and pressure. Once completed, the project would primarily be underground and would not increase the risk of wildland fires. Implementation of the project would increase the community's ability to respond to fires by increasing water distribution system reliability and increasing the number of available fire hydrants in some project areas.

Cumulative Impacts

There are no adverse cumulative environmental impacts to or from hazards/hazardous materials resulting from implementation of the proposed project.

Mitigation Measures

HM1

The contractor shall be required to follow the provisions of § 5163 through 5167 of the General Industry Safety Orders (California Code of Regulations, Title 8) to protect the project area from being contaminated by accidental release of any hazardous materials.

In general, the Contractor shall maintain awareness of potential signs of soil and groundwater contamination throughout the project limits and shall notify the CAWD immediately upon discovery of any potential soil or groundwater contamination.

If hazardous materials are encountered during construction or occur as a result of an accidental spill, the contractor shall halt construction immediately, notify the CAWD, and implement remediation in accordance with the project specifications and applicable requirements of the Regional Board. Disposal of all hazardous materials shall be in compliance with current California hazardous waste disposal laws.

X HYDROLOGY & WATER QUALITY

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in a substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. impede or redirect flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

SURFACE WATER

The CAWD is within the Clear Lake watershed. Clear Lake is located within, and tributary to, the Sacramento River Basin. The Sacramento River Basin covers approximately 27,210 square miles and includes the entire area drained by the Sacramento River, including all watersheds tributary to the Sacramento River north of the Cosumnes River watershed. The basin also includes the closed basin of Goose Lake and the drainage sub-basins of Cache and Putah creeks. The principal streams are the Sacramento River and its larger tributaries, the Pit, Feather, Yuba, Bear, and American rivers to the east, and Cottonwood, Stony, Cache, and Putah creeks to the west. Major reservoirs and lakes include Shasta, Oroville, Folsom, Clear Lake, and Lake

Berryessa. Numerous streams are located within the CAWD with Kelsey Creek and Cole Creek being the largest. Surface waters are shown on Figure X-1.

There are no designated wild or scenic rivers in the immediate project area. Cache Creek is designated as a wild or scenic river approximately three miles downstream of Clear Lake, as shown on Figure X-2.

GROUNDWATER RESOURCES

The CAWD's water supply is from wells throughout the project area, as described in the Background section of this document. As shown on Figure X-3, the project is not located above any designated groundwater basin. The CAWD is approximately equidistant from the Big Valley, Lower Lake Valley and Collayomi Valley basins.

FLOODING

Only minor portions of the CAWD area located within a designated FEMA floodplain, as shown on Figure X-4, located along Kelsey Creek. Figure X-5 shows the portion of the CAWD within the floodplain.

Regulatory Setting

FEDERAL REGULATIONS

Clean Water Act

Important applicable sections of the federal CWA (33 USC 1251–1376) are identified below:

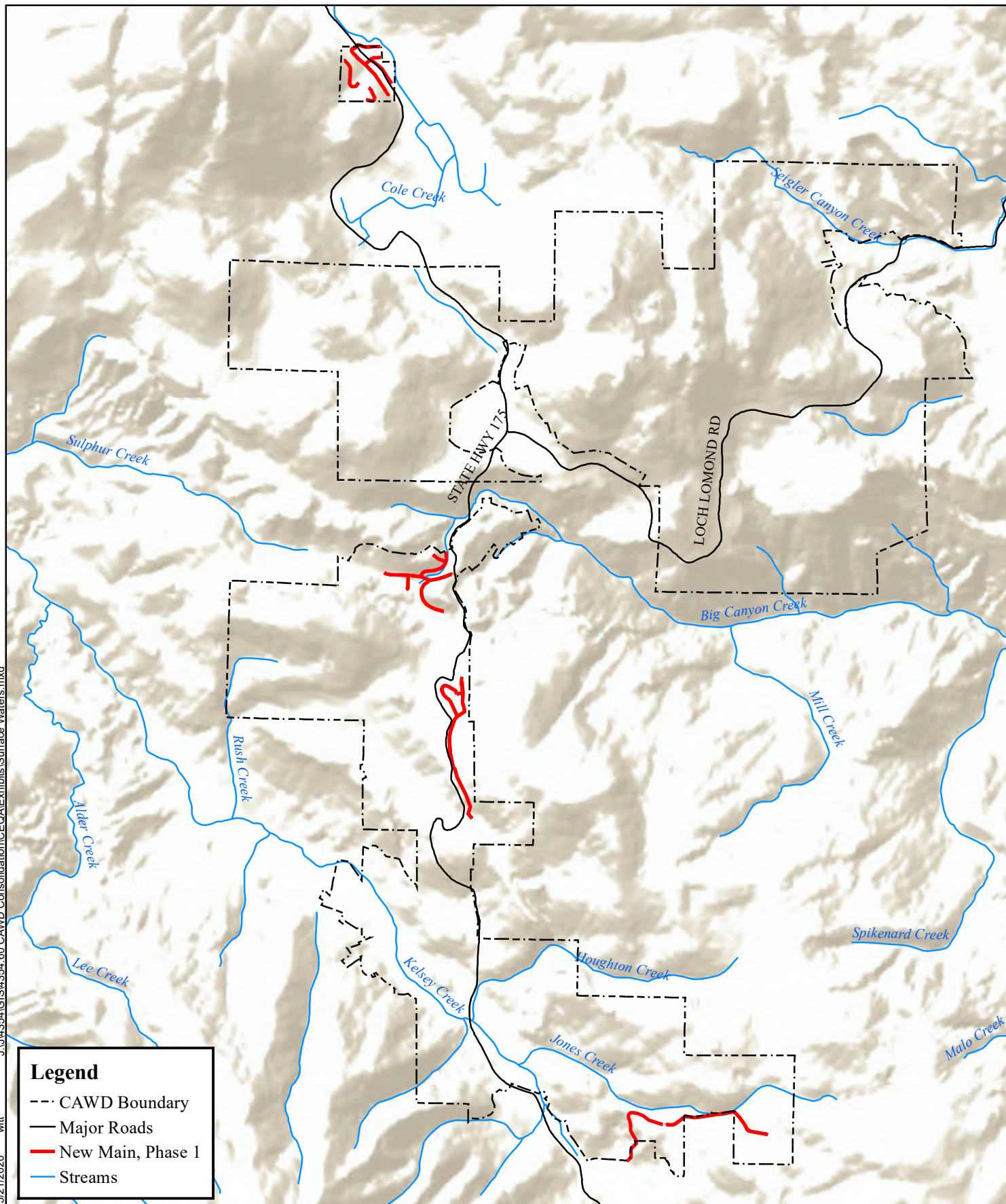
- Sections 303 and 304 provide water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the CWA. Certification is provided by the Regional Water Quality Control Board (RWQCB).
- Section 402 establishes the NPDES permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the RWQCB.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) is responsible for implementing the Clean Water Act and issues NPDES permits to cities and counties through regional water quality control boards. The project location is regulated by the Central Valley Regional Water Quality Control Board (CVRWQCB).

The SWRCB has issued a statewide General Permit (Water Quality Order No. 99-08-DWQ) for construction activities within the state. The Construction General Permit (CGP) is implemented and enforced by the RWQCBs. The CGP applies to construction activity that disturbs one acre or more and requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that identifies best management practices (BMPs) to minimize pollutants from discharging from the construction site to the maximum extent practicable.

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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

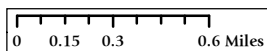
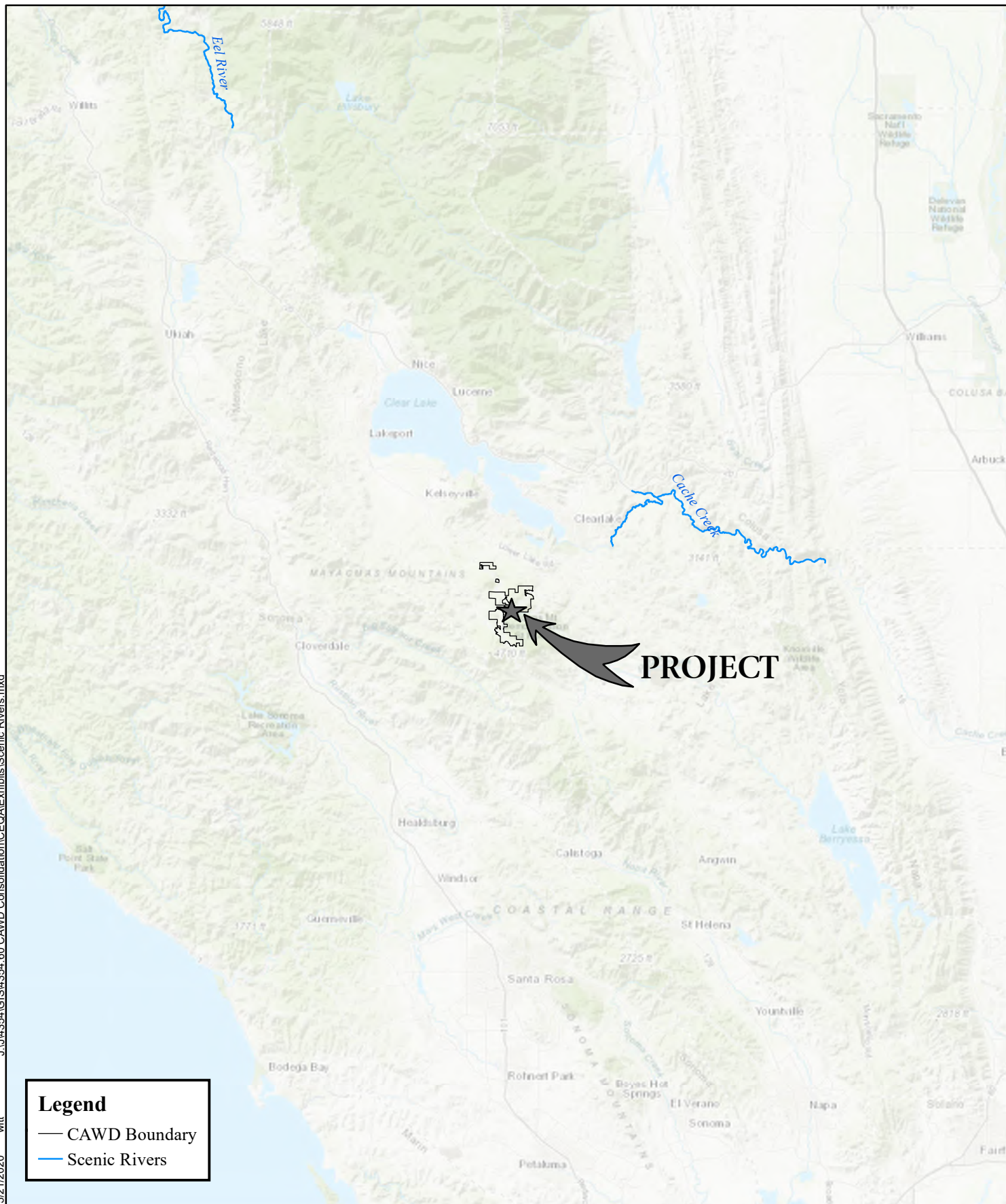


FIGURE X-1
SURFACE WATERS

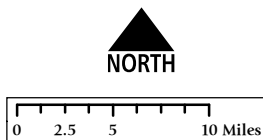
CAWD
MAY 2020

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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

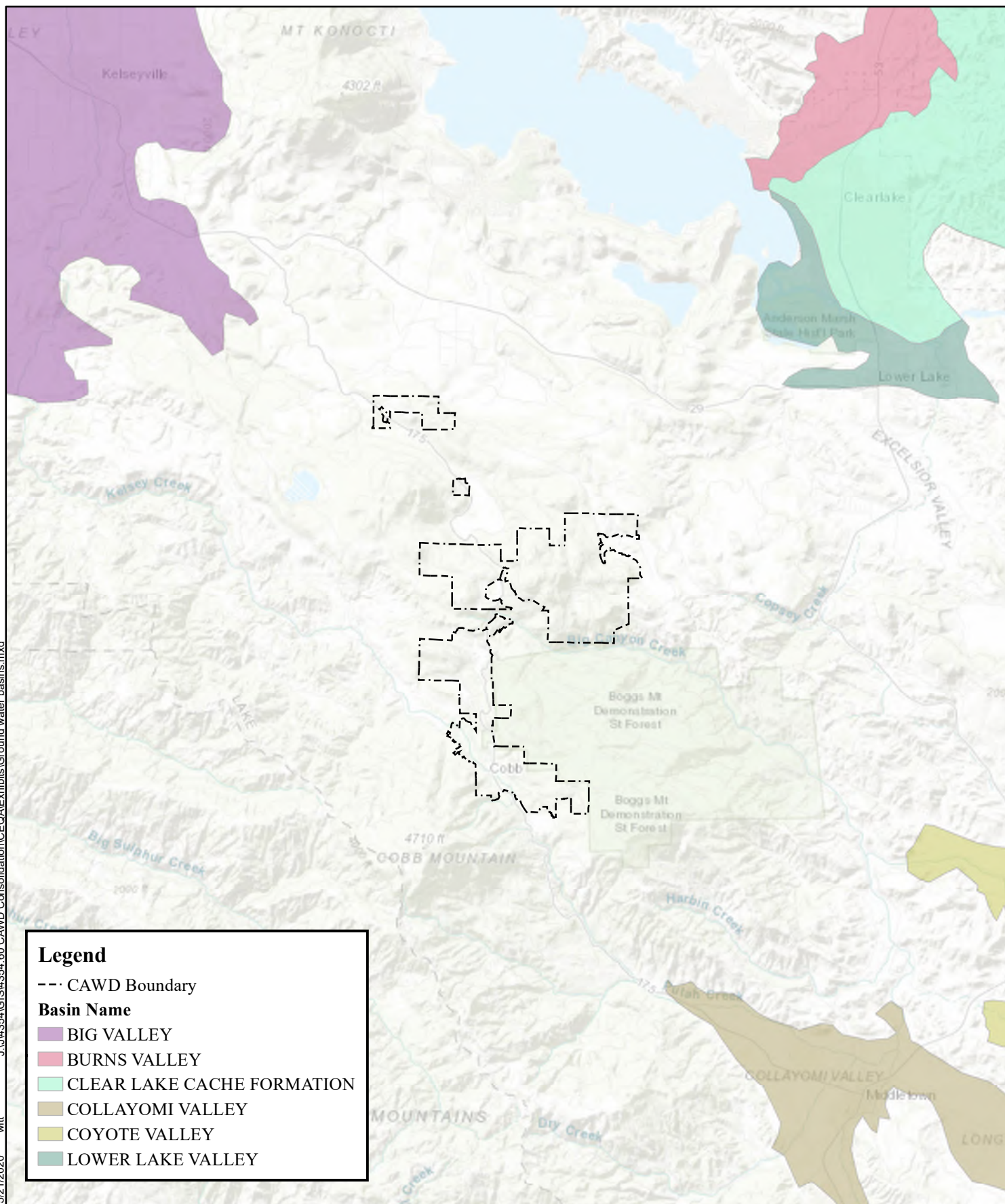
Data Source Information:
Scenic Rivers: California Department of Fish and Wildlife (2017)



**FIGURE X-2
SCENIC RIVERS**

CAWD
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Legend

--- CAWD Boundary

Basin Name

- BIG VALLEY
- BURNS VALLEY
- CLEAR LAKE CACHE FORMATION
- COLLAYOMI VALLEY
- COYOTE VALLEY
- LOWER LAKE VALLEY

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Ground Water Basins: California Division of Water Resources (2018)

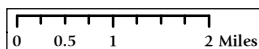
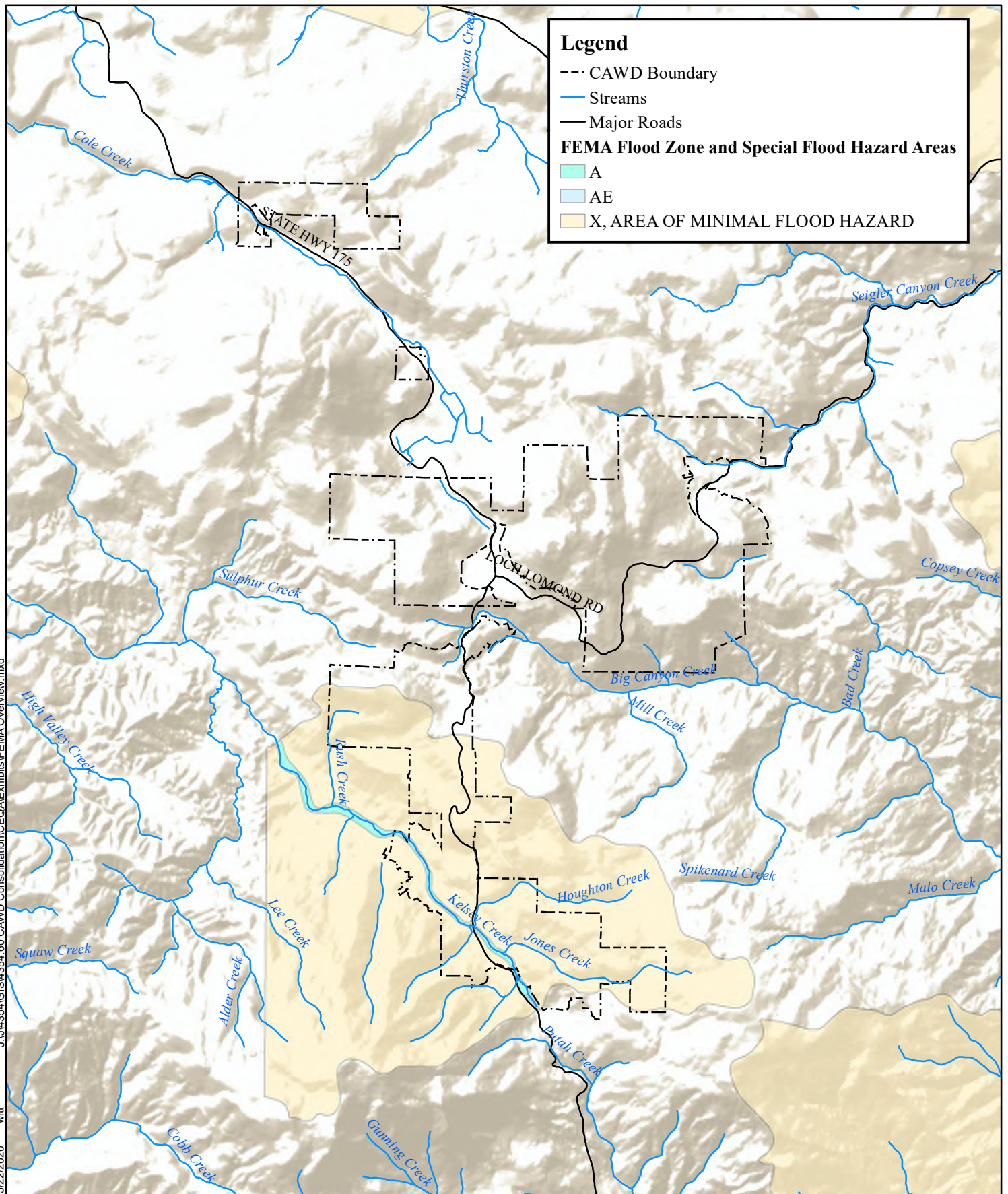


FIGURE X-3
GROUNDWATER BASINS

CAWD

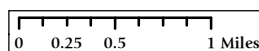
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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Flood Plains: FEMA (2109)

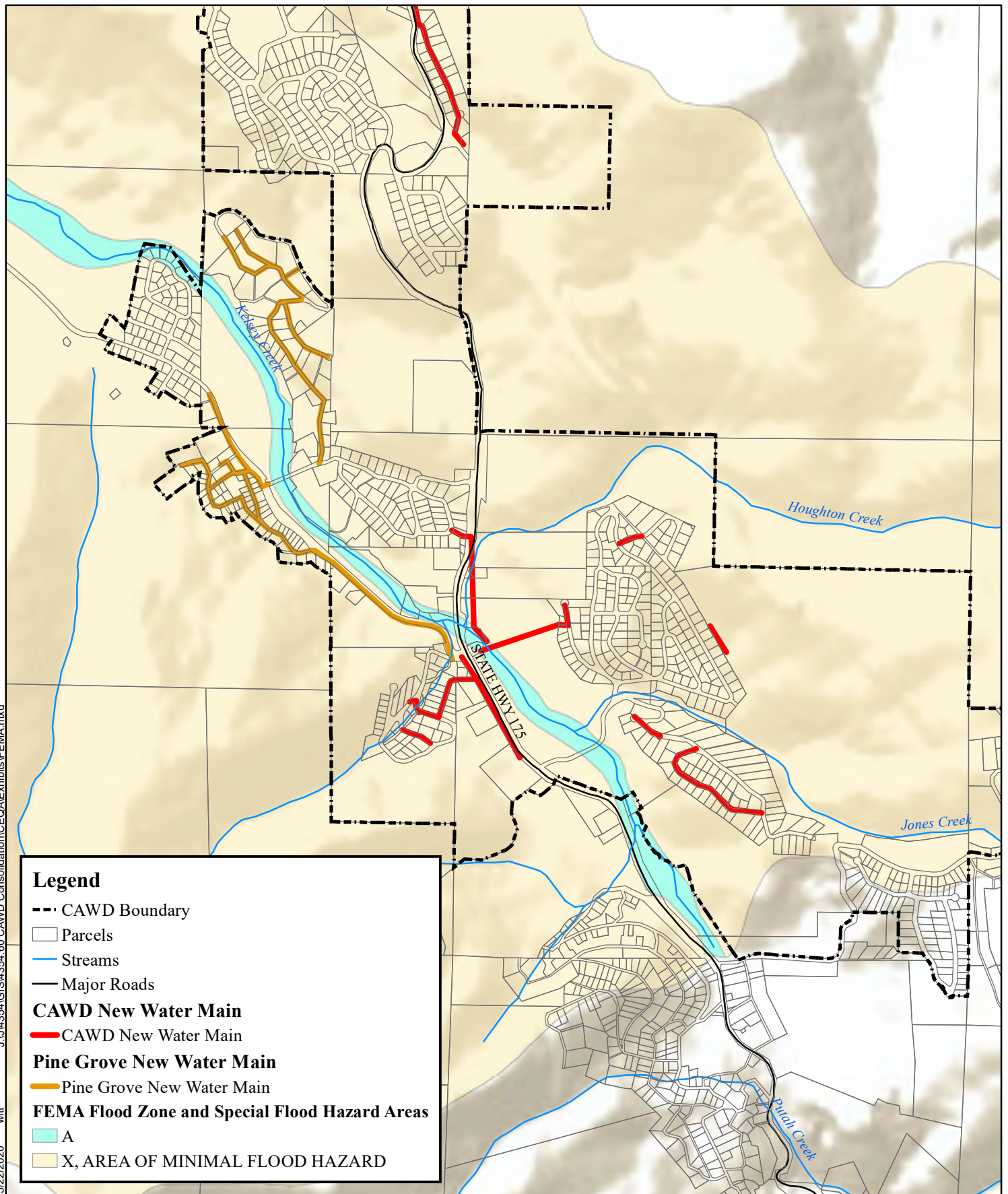


**FIGURE X-4
FEMA FLOOD ZONES
OVERVIEW**

CAWD

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Legend

--- CAWD Boundary

□ Parcels

— Streams

— Major Roads

CAWD New Water Main

— CAWD New Water Main

Pine Grove New Water Main

— Pine Grove New Water Main

FEMA Flood Zone and Special Flood Hazard Areas

■ A

■ X, AREA OF MINIMAL FLOOD HAZARD

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Flood Plains: FEMA (2109)

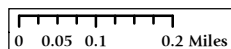


FIGURE X-5
FEMA FLOOD ZONES
CAWD & PINE GROVE (PHASE 2)

CAWD

MAY 2020

The SWRCB has also issued a statewide General Permit (Water Quality Order No. 97-03-DWQ) for regulating stormwater discharges associated with industrial activities. This General Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable and best conventional pollutant control technology. It also requires the development of a SWPPP, a monitoring plan, and the filing of an annual report.

Certain actions during construction may also need to conform to a General Permit (Water Quality Order No. 5-00-175) that requires that a permit be acquired for dewatering and other low threat discharges to surface waters, provided that they do not contain significant quantities of pollutants and are either (1) four months or less in duration, or (2) the average dry weather discharge does not exceed 0.25 million gallons per day (mgD). Examples of activities that may require the acquisition of such a permit include construction dewatering, pump testing, pipeline/tank pressure testing, pipeline/tank flushing or dewatering, and other miscellaneous dewatering/low threat discharges.

Lake County is listed by the CVRWQCB as an NPDES Phase II program municipality that must comply with Water Quality Order No. 2013-0001-DWQ pertaining to post-construction stormwater best management practices (BMPs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems. Permittees must meet the requirements in Provision D of the General Permit which require the development and implementation of a Storm Water Management Program (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable. The SWMP must include the following six minimum control measures:

- Public Education and Outreach on Stormwater Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management in New Development
- Redevelopment and Pollution Prevention/Good Housekeeping for Municipal Operations.

A SWMP was completed by Lake County, and a complete application was acknowledged by the SWRCB with a staff recommendation for approval, effective October 2003. The Lake County Clean Water Program (LCCWP) Stormwater Program was also established as a joint effort among the Lake County Watershed Protection District, Lake County, the City of Clearlake, and the City of Lakeport in an effort to reduce the impacts of increases in peak flows from development and damage caused by polluted stormwater runoff.

STATE REGULATIONS

Porter-Cologne Water Quality Act

The State of California's Porter-Cologne Water Quality Control Act (California Water Code, Section 13000 et seq.) provides the basis for water quality regulation in California. This Act requires a Report of Waste Discharge for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state. Based on the report, the RWQCBs issue waste discharge requirements to minimize the effect of the discharge.

Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The project would not have a long term impact to water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. The project includes improvements to existing public water systems to bring those systems into regulatory compliance as well as replace or improve aging infrastructure. Operation of state-permitted public water systems generally do not result in violation of water quality standards and such systems are not associated with the need for waste discharge requirements. The project would not increase population growth in the project area that would result in any significant increase of groundwater withdrawals or introduce new activities in the project area that would result in degradation of surface or groundwater quality. Any such impacts would be less than significant.

Each of the Phase 1 projects would have the potential to cause construction-related violations of water quality standards. Implementation of the proposed projects would involve excavation, grading, and other construction activities involving slope and soil disturbance at all locations that could impact water quality by increasing the potential for erosion and sedimentation. Slope and soil disturbance associated with construction activities may cause accelerated soil erosion and sedimentation and/or the release of pollutants to downstream properties and facilities that could impact water quality standards during construction. Post-construction, surfaces would be returned to previous conditions.

The Phase I projects would have a total disturbance area of approximately 2.91 acres. Each project would be bid and constructed separately as discrete projects. Coverage under the State Water Resources Control Board (SWRCB) Construction General Permit is triggered by projects over one acre, so would not be applicable to each individual project. It is anticipated that two projects could be constructed per year and would still have a disturbance area that would not subject them to coverage under the Construction General Permit, as shown below.

Project	Disturbance (SF)	Disturbance (acres)
Adams Spring	21,000	0.48
Mount Hannah	15,000	0.35
Alpine Meadows	13,000 -19,000	0.30-0.44
Pine View Heights	23,000	0.53

Each Phase I project would include an erosion control plan to be prepared by the contractor that would be consistent with the Construction General Permit but not subject to reporting requirements. The tank rehabilitation projects would similarly fall under the threshold of the Construction General Permit but would have only minimal opportunity for soil erosion due to the very limited scale of excavation occurring. The requirement of an erosion control plan would minimize the potential for erosion-related impacts to surface waters to the extent possible. Because the projects would comply with current regulations to limit erosion-related water quality impacts during and after construction, there would be no impact.

The potential for water quality impacts associated with stream crossings is assessed in the Biological Resources section.

- b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

Water has and will be provided by each system's independent water supply, as described in the Background section of this document. The project is not growth inducing and would not impact existing water demands or groundwater levels in the project area or elsewhere. The project does not introduce any significant impervious surfaces and would not substantially interfere with groundwater recharge or groundwater basin management. Any such impact would be less than significant.

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

- c.i. result in a substantial erosion or siltation on- or off-site?**

The projects would not substantially alter the existing area drainage at any of the project locations. As indicated in a.) above, the projects would comply with all permitting requirements to reduce the potential of erosion or siltation, consistent with regulations.

- c.ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?**

The project would not substantially alter the existing drainage pattern of the sites or areas or introduce new impervious surfaces that could substantially increase the rate or amount of surface runoff. As shown on Figure X-3, portions of several water main alignments are within or adjacent to designated flood zones but would not impact flows based on the subterranean nature of water mains.

- c.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?**

The project does not significantly alter existing grades in the project area or introduce any significant impervious surfaces that would impact local stormwater systems or result in substantial additional sources of polluted runoff. There is currently no post-construction stormwater treatment in the project area and none is proposed by the project due to its subterranean nature and lack of significant impervious surfaces.

- c.iv. Would the project impede or redirect flows?**

The majority of the project area is not within a mapped 100-year flood hazard area, as shown on Figure X-4. As shown on Figure X-5, portions of several Phase 2 water main alignments are within or adjacent to designated flood zones but would not impact flows based on the subterranean nature of water mains. The project would not impede or redirect flows.

- d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?**

The majority of the project area is not within a mapped 100-year flood hazard area. The project is not in an area subject to inundation by seiche, tsunami or mudflows.

- e. **Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

Please see a.), above.

Cumulative Impacts

There are no adverse cumulative environmental impacts to hydrology/water quality resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to hydrology and water quality have been identified; therefore, no mitigation is required.

XI LAND USE & PLANNING

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
b. Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

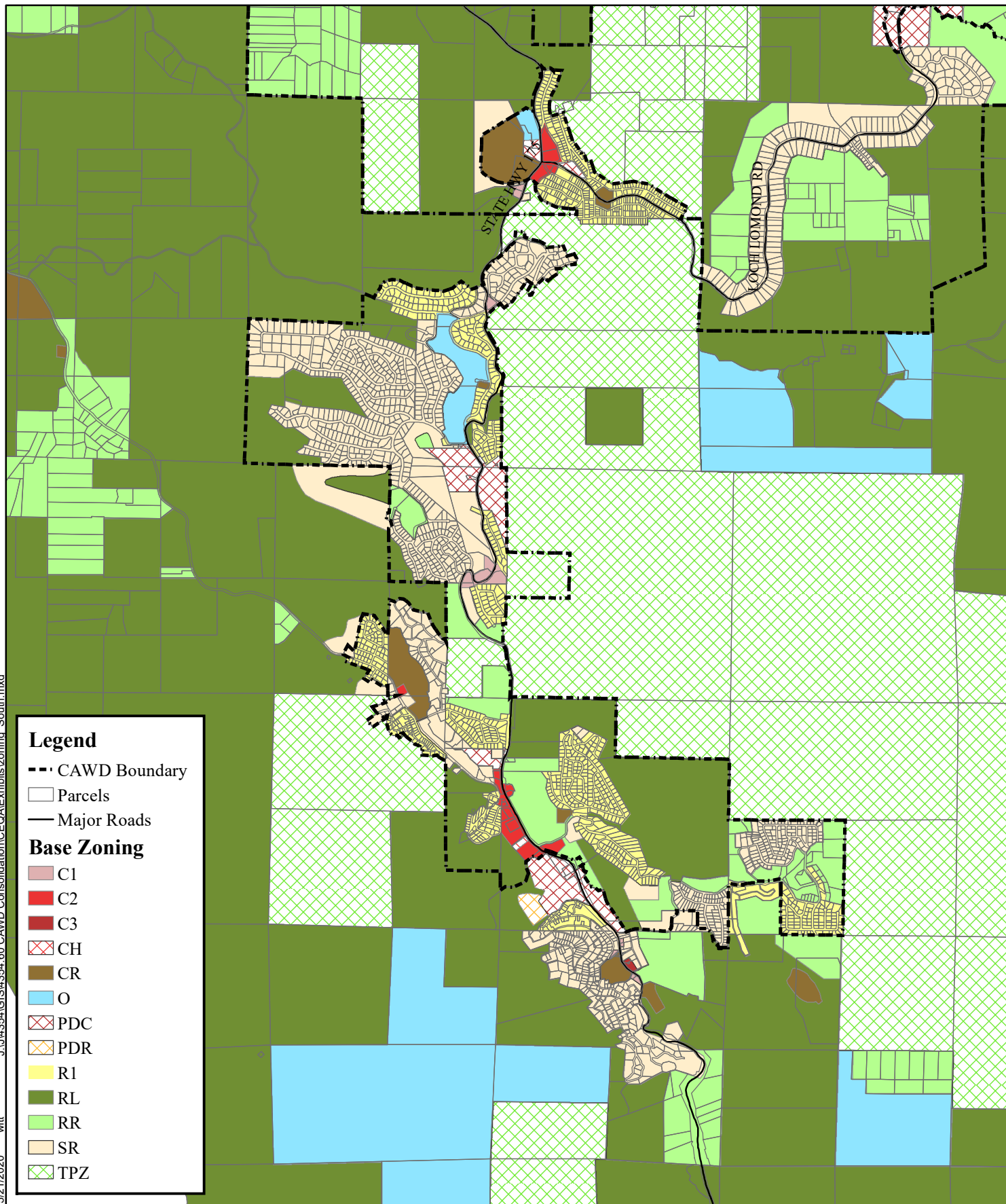
Development in the project area is governed by the County of Lake General Plan and zoning ordinance and the Cobb Mountain Area Plan²⁷. Project area zoning includes the following designations, as shown on Figures XI-1 and XI-2:

A	Agricultural District
APZ	Agricultural Preserve District
C1	Local Commercial District
C2	Community Commercial District
C3	Service Commercial District
CH	Highway Commercial District
CR	Resort Commercial District
O	Open Space District
PDC	Planned Development Commercial District
PDR	Planned Development Residential District
R1	Single-Family Residential District
RL	Rural Lands District
RR	Rural Residential District
SR	Suburban Reserve District
TPZ	Timberland Preserve District

Large portions of the project area were destroyed in the Valley Fire, as shown on Figure 2. Those areas are in the continued process of rebuilding. The remainder of the project area is largely built-out with residential and limited commercial uses.

²⁷ <https://www.lakecountycalifornia.gov/Assets/Departments/CDD/Area+Plans/Cobb+Mountain+Area+Plan.pdf?method=1>

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Legend

--- CAWD Boundary

□ Parcels

— Major Roads

Base Zoning

■ C1

■ C2

■ C3

▨ CH

■ CR

■ O

▨ PDC

▨ PDR

■ R1

■ RL

■ RR

■ SR

▨ TPZ

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Zoning: Lake County GIS

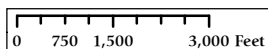


FIGURE XI-1
ZONING, SOUTH

CAWD

MAY 2020

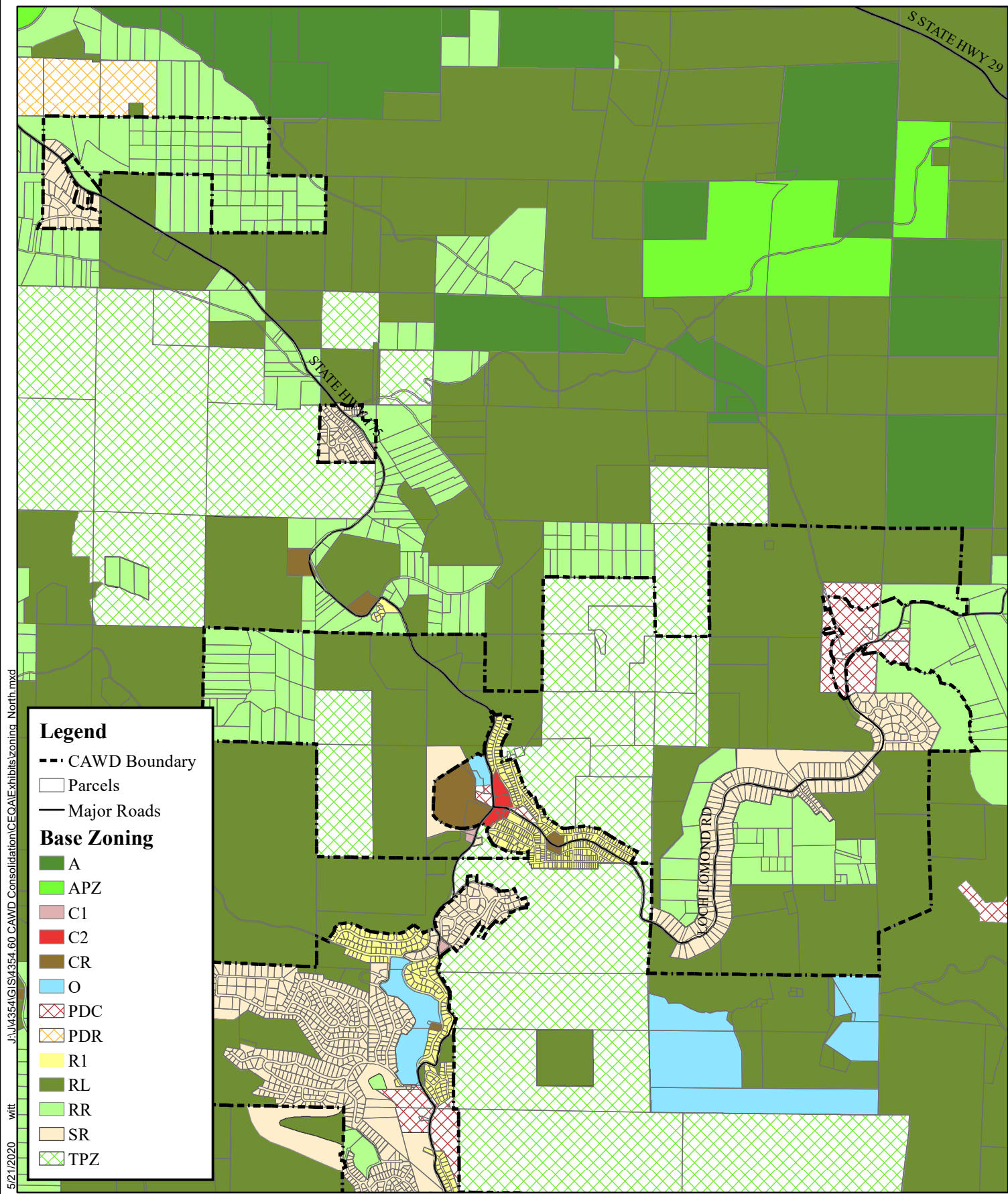


FIGURE XI-2
ZONING, NORTH

CAWD
MAY 2020

Analysis

a. Would the project physically divide an established community?

The project will not physically divide an established community. The project occurs within existing roadways in a community largely in the continued process of rebuilding after the Valley Fire. The project would bring portions of the existing water systems up to current regulatory standards and assist CAWD in providing safe and reliable drinking water as well as expanding fire protection in the project areas. Roadways will be restored upon completion of the project. Implementation of the project would support the existing and rebuilding communities, a beneficial impact.

b. Would the project 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?

The project would not conflict with any applicable land use plan, policy or regulation. All project components occur within public right of way or on parcels owned by CAWD. Water systems are consistent uses with applicable planning policies.

Cumulative Impacts

There are no adverse cumulative environmental impacts to land use and planning resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to land use and planning have been identified; therefore, no mitigation is required.

XII MINERAL RESOURCES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
b. Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Environmental Setting

Lake County is historically known for quicksilver mining operations that occurred in the 19th and 20th Centuries. Gold was also a mineral that was mined in Lake County. The most notable quicksilver mine was the Sulphur Bank Mine located near Clearlake Oaks. This mine started operations in 1856 and was established to originally mine borax, but was then retooled to mine for sulfur. Mercury was mined intermittently from 1873 to 1957, when the mine ceased operations. The Sulphur Bank Mine is both a California Historical Landmark and a superfund site. More recently, the McLaughlin Gold Mine located east of the unincorporated community of Lower Lake and within both Lake and Napa Counties was operated by the Homestake Mining Company from 1985 until 1996.

There are no designated quarry resource areas or existing quarries in the project area contained in the Aggregate Resources Management Plan. The upper reach of Kelsey Creek downstream of Highway 175 to Glenbrook (partially within the CAWD) was assessed in the Aggregate Resources Management Plan (Plates UK1 and UK2)²⁸. No mineral resources are currently mapped within the project area in the General Plan.

²⁸ Lake County Aggregate Resources Management Plan. County of Lake. November 19, 1992.

Analysis

- a. **Would the project 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?**

The project site does not include any designated mineral resource that would be of value to the region and the residents of the state. The project would not affect the availability of any such resource.

- b. **Would the project 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?**

The project area is not delineated in the County's General Plan or the Aggregate Resource Management Plan as a locally important mineral resource recovery site. The Aggregate Resource Management Plan indicates that gravel mining in Upper Kelsey Creek shall not occur except for permitted gravel mining operations of less than 1,000 cubic yards specifically related to habitat restoration or flood or erosion control. The project would have no impact to those potential activities.

Cumulative Impacts

There are no adverse cumulative environmental impacts to mineral resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to mineral resources have been identified; therefore, no mitigation is required.

XIII NOISE

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Would the project result in generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

This section includes a description of the terminology and concepts related to noise, blasting, and vibration impacts that are considered in the analysis. This section also includes a discussion of the existing environmental conditions related to noise-sensitive receptors and ambient conditions found in rural areas such as the project vicinity.

NOISE-SENSITIVE USES

Noise-sensitive land uses in the project area are nearby single residences. There are residential uses located adjacent to all of the proposed project locations.

NOISE CONDITIONS

Existing ambient sound levels in the project area can be considered typical of a rural residential environment. Sources of noise in the area come primarily from traffic along local two-lane roadways and Highway 175. These sound levels typically range from 40 to 50 dBA on private residential properties though traffic can cause temporary exceedances of those levels.

CONSTRUCTION NOISE

The types of equipment that would be used to construct the proposed pipeline include asphalt/concrete trucks, backhoes, compactors, compressors, 10-wheel dump trucks, tracked excavators, forklifts, front-end loaders, jackhammers, paving equipment, flat-bed delivery trucks (pickup trucks), and water trucks.

The table below presents the typical noise levels for the construction equipment listed above based on a worst-case scenario including several pieces of the loudest equipment (running simultaneously). This includes the typical measured A-weighted Lmax noise levels (maximum noise level) that would occur at a 50-foot

distance from the construction site. The acoustical use factor is the fraction of time that the equipment would typically be in use over a 1-hour period.

Equipment	Acoustical Use Factor	Typical Noise Level (Lmax) ¹
Asphalt/Concrete truck ²	40%	76
Backhoe	40%	78
Compactor	20%	83
Compressor	40%	78
Crane	16%	81
Dump Truck	40%	76
Excavator	40%	81
Forklift ³	40%	75
Front-End Loader	40%	79
Jackhammer	20%	89
Paver	50%	77
Pickup Truck	40%	75
Roller	20%	80
Water Truck ²	40%	76

Source: Federal Highway Administration 2006

¹ dBA, A-weighted decibel level (measured at 50 feet)

² Based on data for dump truck

³ Based on data for pickup truck

OPERATIONAL NOISE

During operation, the proposed project would not create noise that would be audible. Water mains would be installed below ground and do not emit noise. Tank improvements and pressure relief valves similarly do not result in noise generation.

Regulatory Setting

LOCAL REGULATIONS

Lake County General Plan Noise Exposure Limits

In accordance with the State Guidelines for General Plans, the Lake County General Plan provides guidance for the acceptability of projects within specific noise level criteria. Noise associated with construction activities occurring between 7:00 a.m. and 7:00 p.m. are exempted from the provisions of the Lake County noise ordinance.

Analysis

- a. **Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

The project would not result in any significant long-term increases in noise levels in the project vicinity. None of the project components are associated with noise generation.

Homes in the project vicinities would be subject to construction-related noise. It is anticipated that the pipeline construction would average approximately 150 to 300 feet per day so no one location would be impacted by excessive noise levels for more than a few days at a time. Provided the general construction activities (as defined by the County's noise ordinance) occur between 7:00 a.m. and 7:00 p.m., there would be no statutory noise impact related to general construction activities along the pipeline installation routes or tank site improvement locations. Implementation of Mitigation Measure N1 would further reduce construction-related noise.

b. Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Implementation of the project would not result in the exposure of people to or the generation of groundborne vibration or noise levels. No pile driving, blasting or similar construction techniques that would generate such vibration are required.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

There are no active public use airports within two miles of the project area. The Paul Hoberg Airport was a private airstrip to the east of Seigler Springs but it is not operational. The project would not alter the existing noise environment resulting from air traffic.

Cumulative Impacts

There are no adverse cumulative environmental impacts to noise resulting from implementation of the proposed project.

Mitigation Measures

N1

The following measures shall be implemented at the construction site to reduce the effects of construction noise on adjacent residences:

- Noise-generating activities at the construction sites or in areas adjacent to the construction sites associated with the project in any way shall generally be restricted to the hours of 7:00 a.m. to 7:00 p.m.
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Staging of construction equipment and all stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be staged as far as practical from existing noise sensitive receptors.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers' radios to the point where radio noise is not audible at existing residents bordering the project site.
- Notify adjacent residents to the project site of the construction schedule in writing.

XIV POPULATION & HOUSING

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
b. Would the project displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Environmental Setting

Population growth in the project area is planned for and regulated by the County's General Plan and zoning ordinance. The Valley Fire destroyed portions of the project area and the CAWD. The CAWD (post consolidation) had approximately 1,244 connections before the fire. As of 2019, CAWD provided water service to 931 connections, including those destroyed homes or businesses that have rebuilt. There are approximately 313 connections that existed prior to the fire that have not been reestablished. Service connections can be residential or commercial. Some service connections serve more than one residence on a parcel (second unit, granny unit).

Analysis

- a. Would the project 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)?**

The project would not induce population growth. All of the water systems that were consolidated into CAWD already provide water service to existing customers. The project is intended to bring those existing water systems up to current regulations and provide safe and reliable water service.

The approximately 313 service connections that have not been reestablished since the Valley Fire are not representative of unplanned population growth as they would not be new homes or businesses. Rather, they would be rebuilt to pre-fire levels. Structures to be rebuilt would be subject to zoning, planning and building codes. The CAWD is currently obligated to provide water service to lots within its boundaries. Implementation of Phase 1 and Phase 2 projects does not increase existing service area size and will not facilitate growth.

- b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No housing would be displaced by the project. The project is specifically intended to facilitate the long-term ability to provide the existing community with water service.

Cumulative Impacts

There are no adverse cumulative environmental impacts to population and housing resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to population and housing have been identified; therefore, no mitigation is required.

XV PUBLIC SERVICES

	Potentially significant impact	Less than significant impact with mitigation incorporation	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:				
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project area falls primarily within the jurisdiction of the South Lake County Fire Protection District (SLCFPD), which covers 285 square miles of commercial, residential, and wildland properties. The district is bounded by Napa County on the south, Sonoma County on the west, Kelseyville Fire Protection District on the north, and Lake County Fire Protection District on the northeast. The SLCFPD service area has a permanent population of 14,000, with a population of up to 31,000 in the summer tourist season. SLCFPD currently operates four fire stations. They are located in the communities of Cobb, Hidden Valley Lake, Loch Lomond, and Middletown.

Police protection is provided by the Lake County Sheriff. The Sheriff's Office is located in Lakeport. The Cobb/Loch Lomond area is patrolled as Beat 7B.

The southern portion of the CAWD is located in the Middletown Unified School District and the northern portion is located in the Kelseyville Unified School District. The Loch Lomond area is located in the Konocti Unified School District. Cobb Mountain Elementary School, part of the Middletown Unified School District, is the only public school in the CAWD and is located at 15895 Hwy 175. Middle school and high school students attend school outside of the CAWD.

The nearest public parks operated by Lake County are located in to the south in the community of Middletown. The 3,100 acre Boggs Mountain Demonstration State Forest is owned by CalFire and is located along the southeasterly boundary of the CAWD. The Valley Fire burned approximately 99 percent of the property and killed approximately 80 percent of the mature trees. The forest is currently open for day use but the trail system has not been restored. The Rob Roy golf course is privately owned and located in the community of Cobb.

Analysis

- 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:**

a.i. Fire protection?

The project would not have any negative effect on fire protection services. The project does not alter above ground conditions or access to/from the project area. The project provides the benefit of increased water availability within the project area and provision of additional fire hydrants.

a.ii. Police protection?

The project is not growth inducing and would not impact police protection. The project is not growth inducing and does not alter demographics in the project area.

a.iii. Schools?

The proposed project is a water system improvement project. It is not growth inducing and would not have a long-term impact to schools.

a.iv. Parks?

The project would not impact any parks.

a.v. Other public facilities?

The project would not impact other public facilities.

Cumulative Impacts

There are no adverse cumulative environmental impacts to public services resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to public services have been identified; therefore, no mitigation is required.

XVI RECREATION

	Potentially significant impact	Less than significant impact with mitigation incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Environmental Setting

The nearest public parks operated by Lake County are located in to the south in the community of Middletown. The 3,100 acre Boggs Mountain Demonstration State Forest is owned by CalFire and is located along the southeasterly boundary of the CAWD. The forest is currently open for day use but the trail system has not been restored. The Rob Roy golf course is privately owned and located in the community of Cobb. Public lands that could be used for recreation are shown on Figure XVI-1.

Analysis

- 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?**

The project is not growth inducing and would not increase use of regional parks or other recreational facilities. The project would not impact any parks.

- 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?**

The project does not include recreational facilities or alter such facilities in any way.

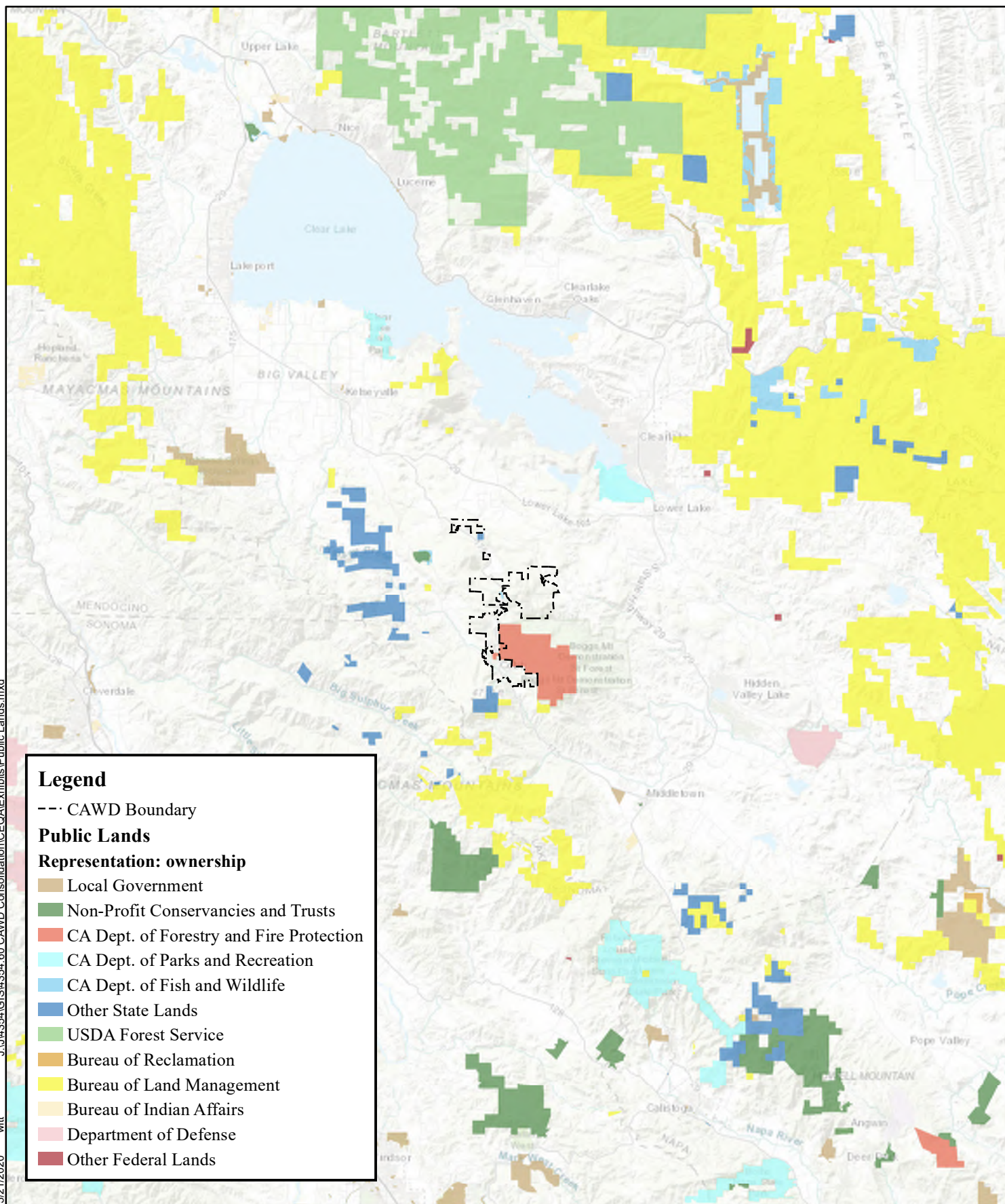
Cumulative Impacts

There are no adverse cumulative environmental impacts to recreation resulting from implementation of the proposed project.

Mitigation Measures

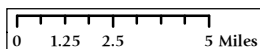
No adverse environmental impacts to recreation have been identified; therefore, no mitigation is required.

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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Public Lands: CalFire (2017)



**FIGURE XVI-1
PUBLIC LANDS**

**CAWD
MAY 2020**

XVII TRANSPORTATION

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
b. Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>
c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
d. Would the project result in inadequate emergency access?	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project area is located in the Cobb Mountain area. State Highway 175 is the major roadway through the community and provides access from Middletown to the South and Kelseyville to the North. Bottle Rock Road provides access to Glenbrook to the west and Loch Lomond Road/Seigler Canyon Road provides access to Lower Lake to the east. Internal roads provide access to individual residences within the community.

Lake Transit provides a bus route along Highway 175 (Route 2) from Kelseyville to Middletown²⁹. No other alternative transportation exists in the project area.

Analysis

- a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

The project does not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The project is primarily located within roadways but would not have a long-term impact on an applicable transportation plan, ordinance or policy. All roadways would be restored once construction is completed.

²⁹ <https://laketransit.org/routes-schedules/>

b. Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

The project does not conflict with and is not inconsistent with CEQA Guidelines § 15064.3, subdivision (b). The project does not increase vehicle trips to or from the project area. Where the project impacts roadways, roadway surfaces would be restored to existing conditions or improved upon project completion. While areas in the CAWD are still in the rebuilding phase after destruction associated with the Valley Fire, such rebuilding is not associated with an increase in traffic above conditions existing before the fire. The proposed project would not exacerbate traffic from rebuilding.

Roadways would be impacted by short-term construction associated with water main construction. Construction would reduce access to vehicle, pedestrian and bike traffic within those locations. Standard traffic control mitigation provided in TT1 would reduce these impacts and ensure traffic flow and access to driveways when active construction is not underway.

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

The project would not increase design hazards. Road surfaces would be restored to existing conditions in the portions of the transmission main constructed in roadways. Encroachment permits from the County and Caltrans would ensure restored roadways do not substantially increase hazards.

d. Would the project result in inadequate emergency access?

The project would not have any long-term impact to emergency access since roadways would be restored to existing conditions. Construction in roadways could impact emergency response during construction. Mitigation Measure TT2 requires the contractor to maintain emergency access and reduces such impact to less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to transportation/traffic resulting from implementation of the proposed project.

Mitigation Measures

TT1

The contractor shall develop and submit an appropriate Traffic Control Plan (TCP) in accordance with the California Manual of Uniform Traffic Control Devices (MUTCD) for review and approval by the CAWD, County and Caltrans for all project elements that impact traffic circulation in respective jurisdictions. The TCP shall also include notifying adjacent businesses and residents of the construction schedule and when it will impact access. The TCP shall ensure thru traffic and temporary driveway access during periods where active construction is not taking place.

TT2

The contractor shall provide advanced notice regarding timing, location and the duration of construction activities to local emergency responders. The contractor shall ensure emergency responders can have access through construction areas in roadways at all times.

XVIII TRIBAL CULTURAL RESOURCES

	Potentially significant impact	Less than significant impact with mitigation incorporation	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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REGULATORY SETTING

Assembly Bill 52 (AB52), the Native American Historic Resource Protection Act, sets forth a proactive approach intended to reduce the potential for delay and conflicts between Native American and development interests. AB52 established a formal consultation process for California Native American Tribes to be conducted with the CEQA process. All projects that file a notice of intent to adopt a mitigated negative declaration after July 1, 2016, are subject to AB52 which added tribal cultural resources (TCR) protection under CEQA. A TCR is defined as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register, or included in a local register of historical resources. A Native American Tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a TCR. AB52 also mandates lead agencies to consult with tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

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:**
- a.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)?**

As described in the Cultural Resources section, Tom Origer & Associates prepared a Cultural Resources Study³⁰ for the Phase 1 project and an Archival Study³¹ for the entire project in April 2020. No new resources were identified in their filed investigation. Known resources were described in the Cultural Resources section.

A portion of the Pine View Heights Distribution Improvements APE goes through the boundary of P-17- 002201 (Hoberg's Resort). This resource was destroyed during the 2015 Valley Fire; however, as part of the post fire clean-up efforts, it was determined that this resource met criteria for inclusion on the National Register under criteria A and D (Walker 2016). Because of this, an Environmentally Sensitive Area (ESA) was established and activities within the Caltrans right-of-way were monitored by a qualified archaeologist and a member of Middletown Rancheria of Pomo Indians of California. Origer & Associates recommends that an ESA be prepared for this resource that is tailored to the needs of this project that includes monitoring of project activities by a qualified archaeologist. A member of Middletown Rancheria of Pomo Indians of California should be invited to monitor as well—the CAWD and the Middletown Rancheria are in the process of negotiating a monitoring agreement. Mitigation Measure CR1 implements this recommendation and would reduce any impact to the resource to a level of less than significant.

The Schwartz Tank is in the APE. Based on information from the CAWD's manager, the tank is of sufficient age to be considered potentially eligible for listing on the California and National registers. However, the tank is a ubiquitous structure, is not associated with any people or historical themes in the Cobb area, and it is not associated with a significant water conveyance network or system. Because of this it would not meet criteria for inclusion on the California or National registers and proposed rehabilitation efforts may proceed.

The Adams Springs tank is in the APE. Based on archival research the tank less than 45 years old and would not meet criteria for inclusion on the California or National registers; therefore, no recommendations are required.

There are several structures recorded near the APE (P-17-002202, P-17-002203, P-17-002204, P-17- 002540, P-17-002649, P-17-002759). None of these extend into the road right-of-way or the APE; therefore, no further recommendations are required.

³⁰ *Cultural Resources Study for the Cobb Area County Water District Improvements Project, Lake County, California*. Tom Origer & Associates. April 9, 2020.

³¹ *Archival Study for the Cobb Area County Water District, Lake County, California*. Tom Origer & Associates. April 7, 2020.

There is always the possibility of accidental discovery of historical resources during construction. In the event resources are discovered, mitigation measure CR2, contained in the Cultural Resources section, would reduce such impact to less than significant.

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

Known archaeological resources were described in the Cultural Resources section of this document and described in a.i.) above.

As part of the AB52 tribal consultation process, project information was sent via certified mail to the following tribes by the CAWD on January 2, 2020:

- Elem Indian Colony of Pomo Indians
- Koi Nation of Northern California
- Middletown Rancheria of Pomo Indians of California
- Mishewal-Wappo Tribe of Alexander Valley
- Big Valley Band of Pomo Indians
- Scotts Valley Band of Pomo Indians
- Robinson Rancheria of Federated Indians
- Koi Nation of Northern California

The Middletown Rancheria of Pomo Indians of California (Tribe) responded on January 6, 2020, indicating the project falls in an area of cultural, historical, and religious significance to the Tribe and provided mitigation measures to ensure potential impacts to Tribal Cultural Resources are minimized to the extent practicable. The CAWD has included all requested mitigation measures, TCR1 through TCR5, below. The Tribe will be provided access to monitor all ground disturbing activities. The extent of paid Tribal monitoring is being negotiated but will be completed prior to the CAWD's ability to adopt the Mitigated Negative Declaration.

All other tribes were provided with follow-up calls or emails between April 21st and 22nd, 2020. No further comments or requests for consultation have been received.

Cumulative Impacts

There are no adverse cumulative environmental impacts to tribal cultural resources resulting from implementation of the proposed project.

Mitigation Measures

Due to the possibility of unearthing tribal cultural resources which include, but is not limited to, Native American human remains, funerary objects, items or artifacts, sites, features, places, landscapes or object with cultural values to the Middletown Rancheria of Pomo Indians of California (Tribe), during ground

disturbance activities, the following mitigation measures shall be incorporated into the project for preservation or mitigation of significant impacts to tribal cultural resources.

TCR1

Prior to initial ground disturbance, the applicant shall retain a project Tribal Cultural Advisor approved by the Tribe, to direct all mitigation measures related to tribal cultural resources.

TCR2

Ground disturbing activities occurring in conjunction with the project (including surveys, testing, concrete pilings, debris removal, rescrapes, punchlists, erosion control (mulching, waddles, hydroseeding, etc.), pot-holing or auguring, boring, grading, trenching, foundation work and other excavations or other ground disturbance involving the moving of dirt or rocks with heavy equipment or hand tools within the project area) shall be monitored on a full-time basis by qualified tribal monitor(s) approved by the Tribe. The tribal monitoring shall be supervised by the project Tribal Cultural Advisor. Tribal monitoring should be conducted by qualified tribal monitor(s) approved by the Tribe, who is defined as qualified individual(s) who has experience with identification, collection and treatment of tribal cultural resources of value to the Tribe. The duration and timing of the monitoring will be determined by the project Tribal Cultural Advisor. If the project Tribal Cultural Advisor determines that full-time monitoring is no longer warranted, he or she may recommend that tribal monitoring be reduced to periodic spot-checking or cease entirely. Tribal monitoring would be reinstated in the event of any new or unforeseen ground disturbances or discoveries.

TCR3

The project Tribal Cultural Advisor and tribal monitor(s) may halt ground disturbance activities in the immediate area of discovery when known or suspected tribal cultural resources are identified until further evaluation can be made in determining their significance and appropriate treatment or disposition. There must be at minimum one tribal monitor for every separate area of ground disturbance activity that is at least 30 meters or 100 feet apart unless otherwise agreed upon in writing between the Tribe and applicant. Depending on the scope and schedule of ground disturbance activities of the project (e.g., discoveries of cultural resources or simultaneous activities in multiple locations that requires multiple tribal monitors, etc.) additional tribal monitors may be required on-site. If additional tribal monitors are needed, the Tribe shall be provided with a minimum of three (3) business days advance notice unless otherwise agreed upon between the Tribe and applicant. The on-site tribal monitoring shall end when the ground disturbance activities are completed, or when the project Tribal Cultural Advisor have indicated that the site has a low potential for tribal cultural resources.

TCR4

All on-site personnel of the Project shall receive adequate cultural resource sensitivity training approved by the project Tribal Cultural Advisor or his or her authorized designee prior to initiation of ground disturbance activities on the Project. The training must also address the potential for exposing subsurface resources and procedures if a potential resource is identified consistent. The Project applicant will coordinate with the Tribe on the cultural resource sensitivity training.

TCR5

The project applicant must meet and confer with the Tribe, at least 45 days prior to commencing ground disturbance activities on the project to address notification, protection, treatment, care and handling of tribal cultural resources potentially discovered or disturbed during ground disturbance activities of the project. All potential cultural resources unearthed by project activities shall be evaluated by the project Tribal Cultural Advisor. The Tribe must have an opportunity to inspect and determine the nature of the resource and the best course of action for avoidance, protection and/or treatment of tribal cultural resources to the extent permitted by law. If the resource is determined to be a tribal cultural resource of value to the Tribe, the Tribe will coordinate with the project applicant to establish appropriate treatment and disposition of the resources with appropriate dignity which may include reburial or preservation of the resources. The project applicant must facilitate and ensure that the determination of treatment and disposition by the Tribe is followed to the extent permitted by law. No laboratory studies, scientific analysis, curation, or video recording are permitted for tribal cultural resources without prior written consent of the Tribe.

XIX UTILITIES & SERVICE SYSTEMS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
c. Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
d. Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

Environmental Setting

The CAWD currently provides water service to the project area. The major Lake County landfill is the South Lake Refuse and Recycling Center, located in the City of Clearlake, approximately ten miles northeast from the project area. Wastewater treatment in the project area is provided by individual septic systems. Electric power is provided by PG&E via above ground transmission. There is no natural gas distribution in the area.

Analysis

- a. **Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

The project would not require or result in the relocation or construction of new or expanded wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. The project includes water system improvements in existing water service areas and is subject to environmental review in this document. The project is not growth inducing and would not increase demand for utilities in the service areas.

- b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

The project would improve the existing water systems owned and operated by the CAWD. The project is not growth inducing and would not increase demand for water and does not include new water sources, primarily limited to transmission, treatment and storage improvements. Existing water supplies are sufficient to meet existing demands as well as pre-Valley Fire demands and no new entitlements are required.

- c. Would the project 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?**

The project does not alter the existing septic systems in the project area. No provision of municipal wastewater collection exists or is proposed within the project area.

- d. Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

No increase in solid waste generation would occur as the project would not increase solid waste demands or impair attainment of solid waste reduction goals. Any demolition materials or spoils would be processed according to state and local regulations.

- e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

The project would comply with federal, state and local statutes and regulations related to solid waste.

Cumulative Impacts

There are no adverse cumulative environmental impacts to utilities and service systems resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to utilities and service systems have been identified; therefore, no mitigation is required.

XX WILDFIRE

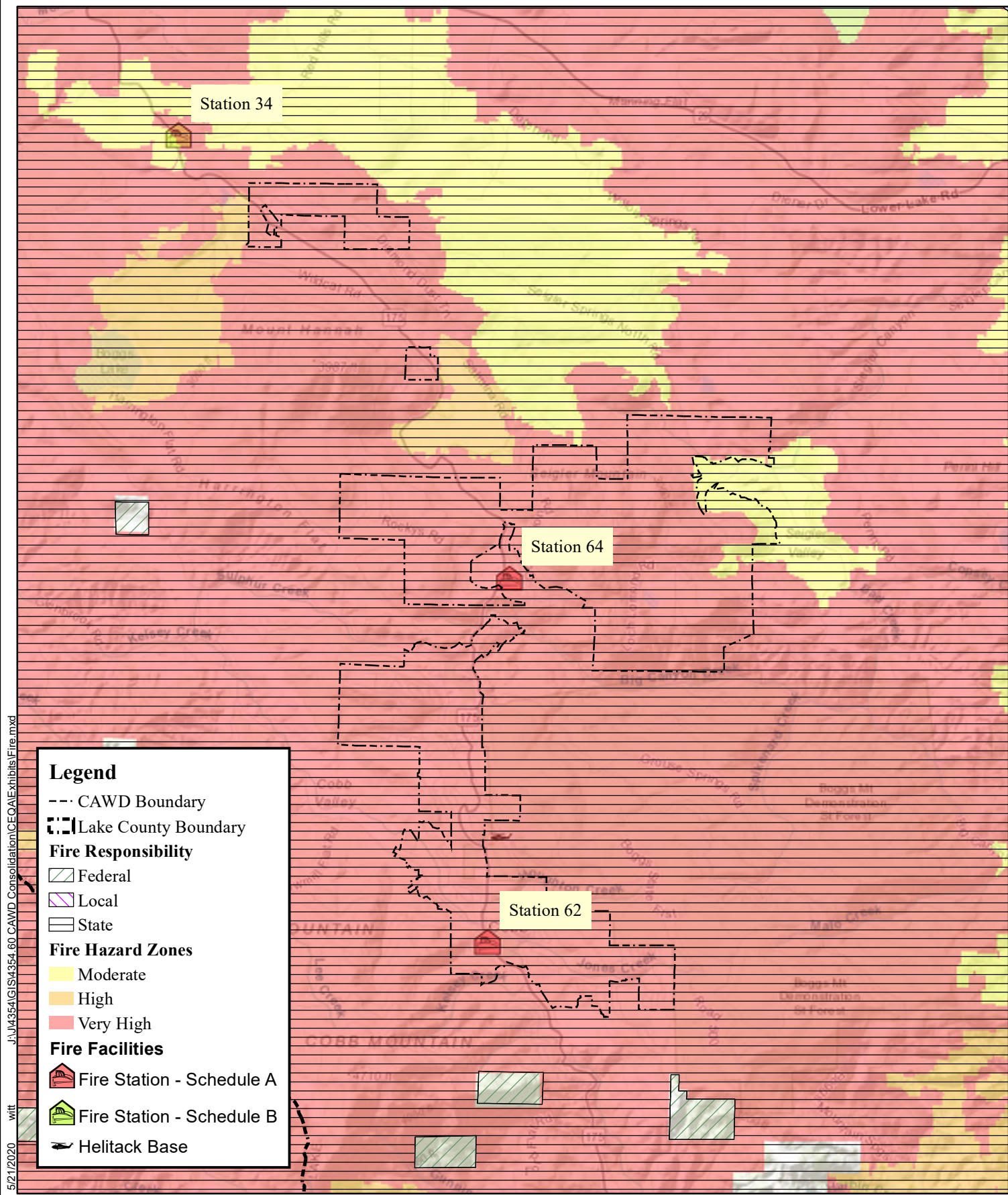
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project area is designated as a state fire responsibility area and is located almost entirely within a very high fire hazard zone, as shown on Figure XX-1. CalFire and the South Lake County Fire Protection District operates two fire stations near the project area and the Kelseyville Fire Protection District operates a fire station north of the CAWD. Cobb Station 62 is located at 16547 Hwy 175 and Loch Lomond Station 64 is located at 10331 Loch Lomond Road.

Lake County has been subject to multiple wildfires each year over the last several years. More than half of the county has burned since 2012. The Valley Fire destroyed large portions of the CAWD and the area continues to recover from that fire. Historic wildfires in the project area reported by CalFire since 2000 are listed below and shown on Figure XX-2.

Year	Fire Name	Acres
2000	Morgan	3,316
2000	Hidden Valley	3,960
2004	Geysers	12,244
2012	Wye	2,831
2013	McCabe	3,506
2015	Valley	76,084
2016	Sawmill	1,546
2016	Clayton	3,928
2017	Pocket	17,359
2017	Sulphur	2,206



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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Fire Hazard Zone: CalFire
Responsibility Area: CalFire

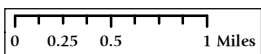
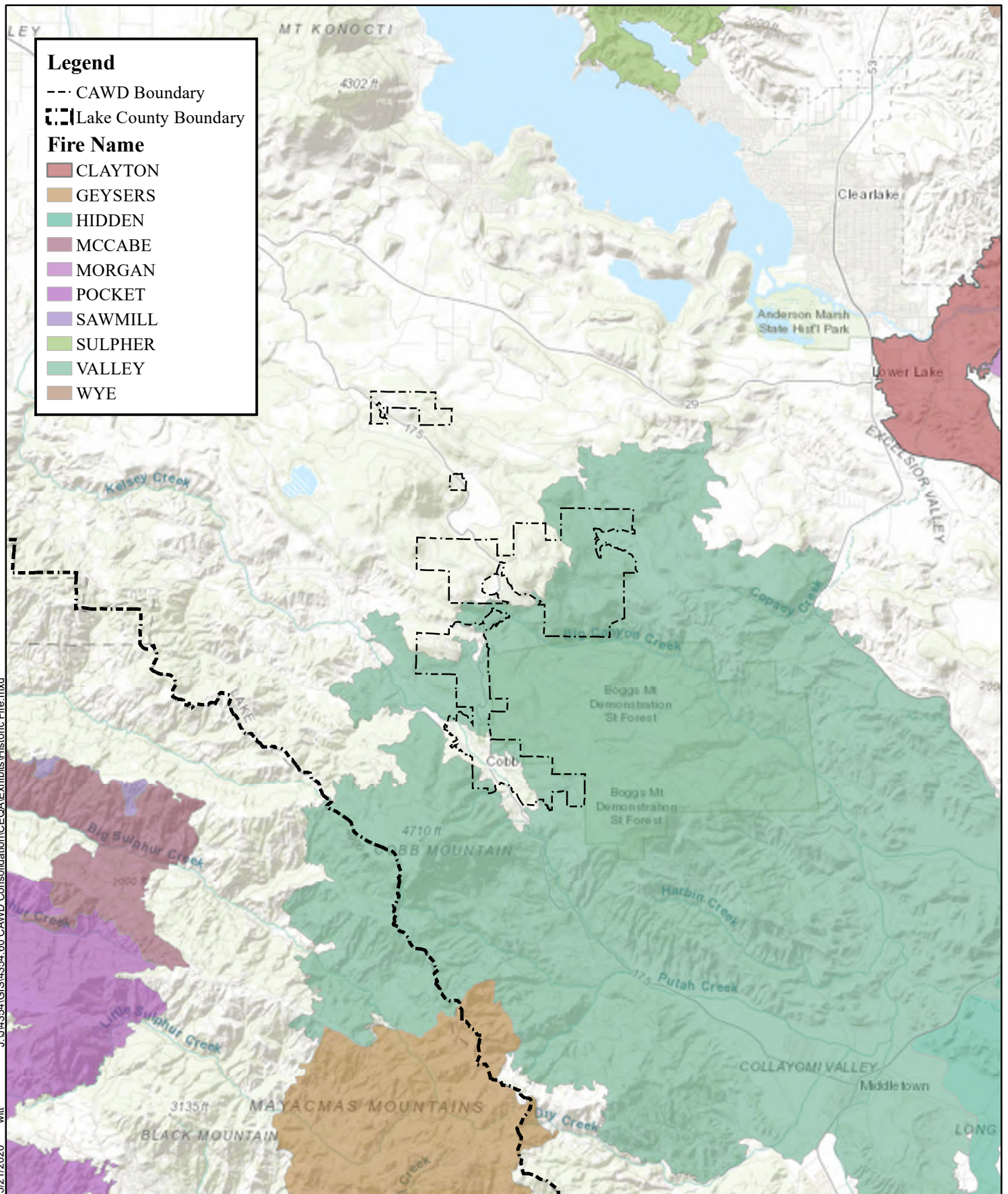


FIGURE XX-1
FIRE HAZARD ZONE

CAWD
MAY 2020

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Legend

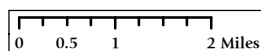
- CAWD Boundary
- Lake County Boundary

Fire Name

- CLAYTON
- GEYSERS
- HIDDEN
- MCCABE
- MORGAN
- POCKET
- SAWMILL
- SULPHUR
- VALLEY
- WYE

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Historic Fires: CalFire (2018)



**FIGURE XX-2
POST 2000 WILDFIRES
OVER 100 ACRES**

**CAWD
MAY 2020**

The entire project area is included in the County's 2018 Lake County Emergency Operations Plan³² (currently being updated) and the Draft 2017 Lake Operational Area, Lake County Emergency Operations Plan, Urban and Wildland Interface Annex³³. Mutual aid and response agreements exist between all of the local fire protection districts and are coordinated by the Office of Emergency Services during large-scale disasters, including wildfire.

Analysis

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The project would bolster water availability across the existing water service areas by improving water mains and increasing the number of available fire hydrants, improving firefighting capacities within the service acre. The project would not have any long-term impact to emergency access since roadways would be restored to existing conditions. Construction in roadways could impact emergency response during construction. Mitigation Measure TT2, in the Transportation section, requires the contractor to maintain emergency access and reduces such impact to less than significant.

b. Would the project 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?

The project modifies existing infrastructure and includes construction of below ground water mains to improve water service within the existing water service areas. The project would improve firefighting ability by increasing water available via fire hydrants to firefighters.

c. Would the project 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?

The project modifies existing infrastructure and includes construction of below ground water mains to improve water service within the existing water service areas. The project does not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. The project would improve firefighting ability by increasing water available via fire hydrants to firefighters.

³² 2018 Lake County Emergency Operations Plan. Office of Emergency Services. May 1, 2018.

³³ Draft 2017 Lake Operational Area Lake County Emergency Operations Plan, Urban and Wildland Interface Annex. Lake County Fire Chief's Association.

d. Would the project 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?

The project does not alter existing risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The project increases firefighting capabilities in the area.

Cumulative Impacts

There are no adverse cumulative environmental impacts from wildfire resulting from implementation of the proposed project.

Mitigation Measures

Please see Mitigation Measure TT1 contained in the Traffic section.

XXI MANDATORY FINDINGS OF SIGNIFICANCE

- a. **Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

With implementation of the mitigation measures provided in this document, the project is not expected to have a significant adverse impact on the habitat of any plant or animal species, humans or historic or prehistoric resources. Furthermore, the project would not substantially degrade the environment or reduce the level of an endangered or otherwise important plant or animal population below self-sustaining levels. This impact is considered less than significant with incorporation of the proposed mitigation measures.

- 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)?**

Implementation of the proposed mitigation measures would reduce impacts to less than significant levels. Because no impact is considered to be individually significant, there would be no contribution to a significant cumulative effect. Therefore, this impact is less than significant with incorporation of the proposed mitigation measures.

- c. **Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

With implementation of the mitigation measures provided in this document, the project is not expected to cause substantial adverse effects on human beings either directly or indirectly. Mitigation measures reduce any such potential to less than significant.

DETERMINATION

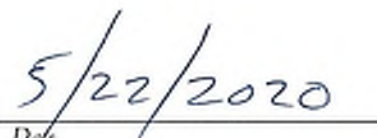
On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature
Ben Murphy, General Manager

Printed Name



Date
For:
Cobb Area Water District

DOCUMENT PREPARATION AND SOURCES

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Lake County Zoning Ordinance

Lake County Community Development GIS.

http://www.lakecountycalifornia.gov/Government/Directory/Community_Development/Planning/Maps_GIS.htm

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Lake County Important Farmland 2016. California Department of Conservation Farmland Mapping and Monitoring Program. 2016.

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Lake County Hazardous Waste Management Plan. 1989.

Lake County Environmental Health Division

Soil Survey. United States Department of Agriculture, Natural Resources Conservation Service.
<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Websites

http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/

<https://www.energy.ca.gov/renewables/history.html>

https://www.energy.ca.gov/2018_energypolicy/

https://www.energy.ca.gov/almanac/electricity_data/us_per_capita_electricity.html

<https://www.census.gov/quickfacts/lakecountycalifornia>

<http://www.ecdms.energy.ca.gov/elecbycounty.aspx>

<https://www.lakecountycalifornia.gov/Assets/Departments/CDD/Area+Plans/Cobb+Mountain+Area+Plan.pdf?method=1>

https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2018/10-18_PowerContent.pdf

https://www.energy.ca.gov/2018publications/CEC-100-2018-001/Exec_Sumry_CEC-100-2018-001-V2-CMF.pdf

<http://www.arb.ca.gov/desig/adm/adm.htm>

https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_trends_00-14_20160617.pdf

Prepared by:

Justin Witt—Environmental Planner

APPENDIX A: MITIGATION MONITORING AND REPORTING PLAN

CAWD Consolidation Improvements May 2020

Pursuant to Section 21081.6 of the State CEQA Guidelines¹, the mitigation measures listed in this Mitigation Monitoring and Reporting Plan (MMRP) are to be implemented as part of the proposed project. The MMRP identifies the time at which each mitigation measure is to be implemented and the person or entity responsible for implementation. The initials of the designated responsible person will indicate completion of their portion of the mitigation measure. The Cobb Area Water District's (CAWD) General Manager's signature on the Certification of Compliance will indicate complete implementation of the MMRP.

The mitigation measures included in the MMRP are considered conditions of approval of the proposed project. The CAWD agrees to implement the mitigation measures proposed in the MMRP. Implementation of the mitigation measures included in the MMRP is expected to avoid, minimize, rectify, reduce, or compensate potentially significant impacts to a less than significant level.

TIME OF IMPLEMENTATION

Project Design: The mitigation measure will be incorporated into the project conditions of approval prior to approving the project.

Preconstruction: The mitigation measure will be implemented prior to construction.

Construction: The mitigation measure will be implemented during construction.

RESPONSIBLE PERSONS AND DEPARTMENTS

The CAWD as Lead Agency will be responsible for ensuring overall implementation of the MMRP through oversight of the CAWD's compliance with the MMRP. The CAWD's General Manager will sign off on the mitigation measures included in the MMRP. Periodically, other CAWD staff, consultants or regulatory agencies will be involved in the implementation of specific mitigation measures. In these instances, the staff, department, or agency will be identified in the MMRP.

CERTIFICATION OF COMPLIANCE

The CAWD will be responsible for providing signatures on the Certification of Compliance. The Certification of Compliance is a double-check to ensure that the MMRP was fully implemented.

RECORD KEEPING

The CAWD's General Manager will maintain the records of the MMRP. When the MMRP is fully implemented, the original signed copy will be maintained by the CAWD.

¹ California Code of Regulations Title 14.

CERTIFICATION OF COMPLIANCE

Complete the Certification of Compliance after mitigation measures have all been initialed. Use this Certification of Compliance to ensure the full implementation of each mitigation measure.

Project Design

The CAWD's General Manager has reviewed the project design, the plans, and the contract special provisions to verify that designated mitigation measures have been incorporated.

Signature & title

Date

Preconstruction

The CAWD's General Manager has reviewed the project design, the plans, and the contract special provisions to verify that designated preconstruction mitigation measures have been implemented prior to commencing construction.

Signature & title

Date

Construction

The CAWD's General Manager has verified that designated mitigation measures were implemented during construction.

Signature & title

Date

AIR QUALITY

Mitigation Measure AQ1

The following Feasible Control Measures, as described by the Bay Area Air Quality Management District, shall be implemented during construction to minimize fugitive dust and emissions:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or be covered.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed or stabilized as soon as possible. Building slabs shall be poured as soon as possible after grading unless seeding or soil binders are used to stabilize the pad.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. A publicly visible sign shall be posted with the telephone number and person to contact at the CAWD regarding dust complaints. This person shall respond and take corrective action within 48 hours. The LCAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Construction: The CAWD's General Manager or construction inspector shall ensure that Mitigation Measure AQ1 is being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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BIOLOGICAL RESOURCES

Mitigation Measure BIO1

The following measures will avoid and/or mitigate for potential impacts to special-status plants due to vegetation removal at select locations:

1. A pre-construction plant survey shall be performed in all locations where work will occur beyond the limits of the roadway or will require some vegetation removal to access. Surveys shall be performed during the blooming period for each of the species, which can vary from year to year. To ensure coverage of the ten species with potential to occur (Konocti manzanita, narrow-flowered California brodiaea, Rincon Ridge ceanothus, Calistoga ceanothus, Greene's narrow-leaved daisy, Bolander's horkelia, Cobb Mountain lupine, eel-grass pondweed, marsh checkerbloom and oval-leaved viburnum), surveys in 2020 are recommended to occur in May and July.
2. If special-status plants are found, they should be completely avoided; orange construction fencing should be placed around the plants to ensure impacts during activities do not occur. In the event a plant cannot be completely avoided then a relocation or propagation plan shall be prepared and implemented prior to activities in those areas or it may be salvaged and transplanted following work in that area (shrub or manzanitas only). Avoidance, salvage/transplanting, or reseedling (propagation) will ensure no significant impacts to special-status plants occur.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Preconstruction: The CAWD's General Manager will verify that the mitigation measure is implemented prior to commencing construction.

Initials	Date
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Construction: The CAWD's General Manager or construction inspector shall ensure that the mitigation measure is being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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Mitigation Measure BIO2

To reduce potential impacts to bat species (western red bat, hoary bat, long eared myotis, and fringed myotis), the following mitigation measures shall be implemented.

1. Prior to activities in areas where bat roosts may be present and subject to disturbance during the maternity season between April and September, a qualified bat biologist shall perform a pre-construction roost survey (dusk emergence survey) no more than 10 days prior to the start of activities to avoid potential impacts to active maternity sites and/or pregnant females.
2. If a maternity roost is located whether solitary or colonial, that roost shall remain undisturbed until September 1 or until a qualified biologist has determined that the roost is no longer active. A no-disturbance buffer may be established around the roost at the direction of the biologist.
3. Tree removal may have the potential to impact non-maternity roosting bats that may be present. As such, any felled trees should be left overnight prior to removal from the site or on-site chipping to allow any bats to exit the roost.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials

Date

Preconstruction: The CAWD's General Manager will verify that the avoidance or preconstruction surveys are implemented prior to commencing construction.

Initials

Date

Construction: The CAWD's General Manager or construction inspector shall ensure that the mitigation measure is being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials

Date

Mitigation Measure BIO3

To avoid impacts to migratory nesting birds, bald eagle and purple martin, the following mitigation measures shall be implemented.

1. Tree removal and roadway construction should be initiated during the non-nesting season from September 1 to January 31.
2. If work cannot be initiated during this period, or if there is a break in activity lasting more than 14 days after February 1, then nesting bird surveys shall be performed within 500 feet of proposed activities.
3. If nests are found, a no-disturbance buffer shall be placed around the nest until young have fledged or the nest is determined to be no longer active by the biologist. The size of the buffer may be determined by the biologist based on species and proximity to activities; larger buffers up to 500 feet are recommended for special status raptor species.

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Preconstruction: The CAWD’s General Manager will verify that the avoidance or preconstruction surveys are implemented prior to commencing construction.

Initials	Date
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Construction: The CAWD’s General Manager or construction inspector shall ensure that the mitigation measure is being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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Mitigation Measure BIO4

To avoid impacts to Northern Spotted Owl, the following mitigation measures shall be implemented.

1. All construction related activities, including tree removal and/or road construction (grading or paving) shall be performed outside the nesting season for northern spotted owl in areas where it may occur (Mount Hannah only). The nesting season for northern spotted owl is from March 15 to August 31. Alternatively, protocol-level surveys may be performed. A minimum of 6 surveys is required. If Northern spotted owl are determined to be present by surveys, consultation with USFWS and CDFW would be required prior to any construction.

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Preconstruction: The CAWD’s General Manager will verify that the avoidance or protocol level surveys and resulting recommendations are implemented prior to commencing construction.

Initials	Date
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Construction: The CAWD’s General Manager or construction inspector shall ensure that the mitigation measure is being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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Mitigation Measure BIO5

To reduce potential impacts to special-status amphibians and reptiles (California giant salamander, red-bellied newt, foothill yellow-legged frog, and western pond turtle), the following mitigation measures shall be applied.

1. A pre-construction survey for special status amphibians and reptiles shall be conducted within 48 hours of ground disturbing activities if within 100 meters (328 feet) of any aquatic habitat and outside existing hardscape area and/or private property. Surveys are to be conducted by approved qualified biologist with experience surveying for each species. If any species is found on the project site, it should be allowed to leave the area on its own. If the animal does not leave the area on its own, CDFW should be contacted. Non-listed species if found, may be relocated to suitable habitat outside the project Site.
2. Tightly woven fiber netting or similar material shall be used for erosion control or other purposes to ensure amphibian and reptile species do not get trapped. Plastic monofilament netting (erosion control matting), rolled erosion control products, or similar material should not be used. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.
3. All over-water work shall be performed during the dry season, unless otherwise authorized by state issued permits.
4. If the stream contains standing or flowing water during the dry season, a catch basin shall be installed to prevent discharge of materials and/or equipment into the live waterway that may impact aquatic species.

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Preconstruction: The CAWD’s General Manager will verify that the avoidance or preconstruction surveys are implemented prior to commencing construction.

Initials	Date
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Construction: The CAWD’s General Manager or construction inspector shall ensure that the mitigation measure is being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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Mitigation Measure BIO6

Any proposed project activities that will occur in the seasonal wetland or pond habitat will require mitigation to compensate for the functions of those wetlands proposed to be filled. The minimum replacement ratio is 1:1. Higher replacement ratios are required for high quality wetlands. A USACE Section 404 permit is required to fill in any wetland and shall be obtained prior to any portions of the project that would fill wetlands.

The following measures are recommended to avoid and/or mitigate for potential direct and indirect impacts to wetland and non-wetland waters of the United States and their associated riparian habitat in the project area:

1. Orange construction fencing shall be placed around all existing wetland, riparian and stream vegetation to avoid potential impacts to these sensitive vegetation communities during construction-related activities. Placement of exclusion fencing should be performed under the direction of a biologist to ensure maximum avoidance of sensitive vegetation communities.
2. In addition to orange construction fencing, silt fence shall be installed and maintained between the work area and non-wetland waters of the United States to prevent any contaminants from entering the waterway.
3. Best management practices should be employed including the preparation of a spill prevention plan to prevent discharge or spilling of materials or liquids into sensitive habitats.
4. Work at Jones Creek and Big Canyon Creek is anticipated to be accomplished above or below the existing culvert and would not impact the streams. If work will occur within the riparian corridor of either Jones Creek or Big Canyon Creek and water main improvements cannot be installed under or over existing culverts, both the RWQCB and CDFW shall be notified to determine whether a NPDES permit (or 401 water quality certification) and/or a Section 1602 Streambed Alteration Agreement is needed for these locations.
5. To the extent practical, all work within the riparian corridor should be performed outside the rainy season.

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Preconstruction: The CAWD’s General Manager will verify that the recommended avoidance measures are implemented prior to commencing construction. If permits are required, the General Manager will verify that they are obtained prior to construction.

Initials	Date
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Construction: The CAWD’s General Manager or construction inspector shall ensure that mitigation measure and any resulting permit terms are being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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CULTURAL RESOURCES

Mitigation Measure CR1

The project plans shall designate the area around Hoberg's Resort identified in Origer & Associates report as an Environmentally Sensitive Area (ESA). All ground disturbing activities within the ESA shall be subject to monitoring by a professional archaeologist. A Middletown Rancheria Tribal monitor shall be provided access for all ground disturbing activities within the ESA.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials

Date

Preconstruction: The CAWD's General Manager will verify that the ESA and monitoring agreements are implemented prior to commencing construction.

Initials

Date

Construction: The CAWD's General Manager or construction inspector shall ensure that mitigation measure is implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials

Date

Mitigation Measure CR2

The project plans and specifications shall provide that in the event prehistoric-era or historic-era archaeological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work within 60 feet of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact the CAWD. The CAWD shall contact a qualified professional who meets the Secretary of the Interior's Standards for Archaeology and the requirements under 36 CFR 800.13 followed. Work shall not commence in the vicinity of the inadvertent discovery until a qualified archaeologist completes a significance evaluation of the find(s) pursuant to Section 106 of the National Historic Preservation Act (36 CFR 60.4).

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Construction: The CAWD’s General Manager or construction inspector shall ensure that mitigation measure is implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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Mitigation Measure CR3

If human remains are encountered during grading, excavation or trenching, all construction activity shall cease and the contractor shall immediately contact the CAWD and the Lake County Coroner's Office. If the remains are determined by the Coroner's Office to be of Native American origin, the Native American Heritage Commission shall be contacted and the procedures outlined in CEQA §15064.5 (d) and (e) shall be implemented by the CAWD or its designee.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials

Date

Construction: The CAWD's General Manager or construction inspector shall ensure that mitigation measure is implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials

Date

GEOLOGY & SOILS

Mitigation Measure GS1

The project plans and specifications shall provide that in the event paleontological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact the CAWD. The CAWD shall contact a qualified professional geologist or paleontologist immediately after the find. Such consultant shall conduct an evaluation of significance of the site, and assess the necessity for mitigation. The contractor shall not resume construction activities until authorization to proceed is received from the CAWD.

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Construction: The CAWD’s General Manager or construction inspector shall ensure that mitigation measure is implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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HAZARDS & HAZARDOUS MATERIALS

Mitigation Measure HM1

The contractor shall be required to follow the provisions of § 5163 through 5167 of the General Industry Safety Orders (California Code of Regulations, Title 8) to protect the project area from being contaminated by accidental release of any hazardous materials.

In general, the Contractor shall maintain awareness of potential signs of soil and groundwater contamination throughout the project limits and shall notify the CAWD immediately upon discovery of any potential soil or groundwater contamination.

If hazardous materials are encountered during construction or occur as a result of an accidental spill, the contractor shall halt construction immediately, notify the CAWD, and implement remediation in accordance with the project specifications and applicable requirements of the Regional Board. Disposal of all hazardous materials shall be in compliance with current California hazardous waste disposal laws.

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Construction: The CAWD’s General Manager or construction inspector shall ensure that mitigation measure is implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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NOISE

Mitigation Measure N1

The following measures shall be implemented at the construction site to reduce the effects of construction noise on adjacent residences:

- Noise-generating activities at the construction sites or in areas adjacent to the construction sites associated with the project in any way shall generally be restricted to the hours of 7:00 a.m. to 7:00 p.m.
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Staging of construction equipment and all stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be staged as far as practical from existing noise sensitive receptors.
- Utilize “quiet” air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers’ radios to the point where radio noise is not audible at existing residences bordering the project site.
- Notify adjacent residents to the project site of the construction schedule in writing.

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Preconstruction: The CAWD’s General Manager will verify that the noticing is implemented prior to commencing construction.

Initials	Date
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Construction: The CAWD’s General Manager or construction inspector shall ensure that the mitigation measure is being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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TRANSPORTATION

Mitigation Measure TT1

The contractor shall develop and submit an appropriate Traffic Control Plan (TCP) in accordance with the California Manual of Uniform Traffic Control Devices (MUTCD) for review and approval by the CAWD, County and Caltrans for all project elements that impact traffic circulation in respective jurisdictions. The TCP shall also include notifying adjacent businesses and residents of the construction schedule and when it will impact access. The TCP shall ensure thru traffic and temporary driveway access during periods where active construction is not taking place.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials Date

Construction: The CAWD's General Manager or construction inspector shall ensure that the mitigation measure is being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials Date

Mitigation Measure TT2

The contractor shall provide advanced notice regarding timing, location and the duration of construction activities to local emergency responders. The contractor shall ensure emergency responders can have access through construction areas in roadways at all times.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials

Date

Preconstruction: The CAWD's General Manager will verify that the noticing is implemented prior to commencing construction.

Initials

Date

Construction: The CAWD's General Manager or construction inspector shall ensure that the mitigation measure is being implemented during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials

Date

TRIBAL CULTURAL RESOURCES

Mitigation Measure TCR1

Prior to initial ground disturbance, the applicant shall retain a project Tribal Cultural Advisor approved by the Tribe, to direct all mitigation measures related to tribal cultural resources.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Preconstruction: The CAWD's General Manager will verify that the Tribal Cultural Advisor is approved prior to commencing construction.

Initials	Date
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Construction: The CAWD's General Manager will follow the Tribal Cultural Advisor's direction pertaining to tribal cultural resources during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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Mitigation Measure TCR2

Ground disturbing activities occurring in conjunction with the project (including surveys, testing, concrete pilings, debris removal, rescrapes, punchlists, erosion control (mulching, waddles, hydroseeding, etc.), pot-holing or auguring, boring, grading, trenching, foundation work and other excavations or other ground disturbance involving the moving of dirt or rocks with heavy equipment or hand tools within the project area) shall be monitored on a full-time basis by qualified tribal monitor(s) approved by the Tribe. The tribal monitoring shall be supervised by the project Tribal Cultural Advisor. Tribal monitoring should be conducted by qualified tribal monitor(s) approved by the Tribe, who is defined as qualified individual(s) who has experience with identification, collection and treatment of tribal cultural resources of value to the Tribe. The duration and timing of the monitoring will be determined by the project Tribal Cultural Advisor. If the project Tribal Cultural Advisor determines that full-time monitoring is no longer warranted, he or she may recommend that tribal monitoring be reduced to periodic spot-checking or cease entirely. Tribal monitoring would be reinstated in the event of any new or unforeseen ground disturbances or discoveries.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Preconstruction: The CAWD's General Manager will verify that the Tribal Cultural Advisor is approved prior to commencing construction and provided with the construction schedule 45 days prior to construction.

Initials	Date
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Construction: The CAWD's General Manager will follow the Tribal Cultural Advisor's direction pertaining to tribal cultural resources during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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Mitigation Measure TCR3

The project Tribal Cultural Advisor and tribal monitor(s) may halt ground disturbance activities in the immediate area of discovery when known or suspected tribal cultural resources are identified until further evaluation can be made in determining their significance and appropriate treatment or disposition. There must be at minimum one tribal monitor for every separate area of ground disturbance activity that is at least 30 meters or 100 feet apart unless otherwise agreed upon in writing between the Tribe and applicant. Depending on the scope and schedule of ground disturbance activities of the project (e.g., discoveries of cultural resources or simultaneous activities in multiple locations that requires multiple tribal monitors, etc.) additional tribal monitors may be required on-site. If additional tribal monitors are needed, the Tribe shall be provided with a minimum of three (3) business days advance notice unless otherwise agreed upon between the Tribe and applicant. The on-site tribal monitoring shall end when the ground disturbance activities are completed, or when the project Tribal Cultural Advisor have indicated that the site has a low potential for tribal cultural resources.

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Construction: The CAWD’s General Manager will follow the Tribal Cultural Advisor’s direction pertaining to tribal cultural resources during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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Mitigation Measure TCR4

All on-site personnel of the Project shall receive adequate cultural resource sensitivity training approved by the project Tribal Cultural Advisor or his or her authorized designee prior to initiation of ground disturbance activities on the Project. The training must also address the potential for exposing subsurface resources and procedures if a potential resource is identified consistent. The Project applicant will coordinate with the Tribe on the cultural resource sensitivity training.

Implementation & Monitoring

Project Design: The CAWD's General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials

Date

Preconstruction: The CAWD's General Manager will verify that cultural resource sensitivity training has occurred prior to construction.

Initials

Date

Mitigation Measure TCR5

The project applicant must meet and confer with the Tribe, at least 45 days prior to commencing ground disturbance activities on the project to address notification, protection, treatment, care and handling of tribal cultural resources potentially discovered or disturbed during ground disturbance activities of the project. All potential cultural resources unearthed by project activities shall be evaluated by the project Tribal Cultural Advisor. The Tribe must have an opportunity to inspect and determine the nature of the resource and the best course of action for avoidance, protection and/or treatment of tribal cultural resources to the extent permitted by law. If the resource is determined to be a tribal cultural resource of value to the Tribe, the Tribe will coordinate with the project applicant to establish appropriate treatment and disposition of the resources with appropriate dignity which may include reburial or preservation of the resources. The project applicant must facilitate and ensure that the determination of treatment and disposition by the Tribe is followed to the extent permitted by law. No laboratory studies, scientific analysis, curation, or video recording are permitted for tribal cultural resources without prior written consent of the Tribe.

Implementation & Monitoring

Project Design: The CAWD’s General Manager will verify that the mitigation measure is incorporated into the project plans and specification prior to issuing final project approvals.

Initials	Date
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Preconstruction: The CAWD’s General Manager will verify that the Tribal Cultural Advisor is approved prior to commencing construction and provided with the construction schedule 45 days prior to construction.

Initials	Date
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Construction: The CAWD’s General Manager will follow the Tribal Cultural Advisor’s direction pertaining to tribal cultural resources during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials	Date
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