

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS
P.O. BOX 2000
SACRAMENTO, CA 95812-2000

**INITIAL STUDY /
MITIGATED NEGATIVE DECLARATION**

I. BACKGROUND

PROJECT TITLE: Water Right Application 31279 of Joseph Emil Usibelli Trust

APPLICANT: Joseph Emil Usibelli Trust
P.O. Box 1000
Healy, AK 99743-1000

APPLICANT'S REPRESENTATIVE: Nicholas F. Bonsignore, P.E
Wagner & Bonsignore Consulting Civil Engineers
2151 River Plaza Drive, Suite 100
Sacramento, CA 95833

GENERAL PLAN DESIGNATION: Agricultural Resource

ZONING: Agricultural Preserve

Introduction

The 75-acre Joseph Emil Usibelli Trust property (project site) is located approximately three miles southeast of the town of St. Helena in Napa County, California (**Figure 1**). The site is within Township 7 North, Range 5 West of the "Rutherford, California" U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (**Figure 2**).

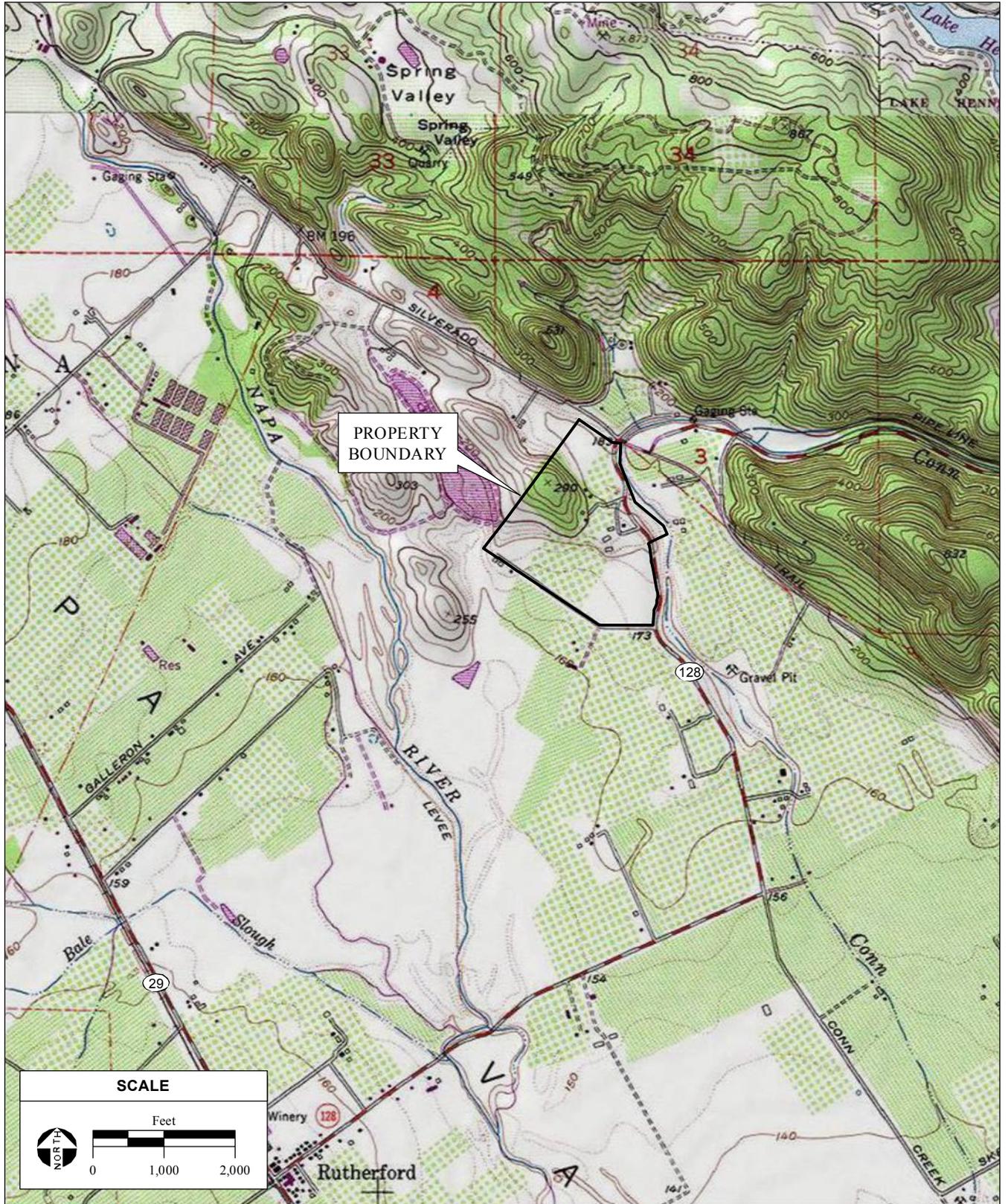
Water Right Application 31279 (proposed project) was filed with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division) on November 16, 2001, and was accepted on January 22, 2002. Application 31279 seeks a right to appropriate a total of 35 acre-feet per annum (afa) of water from Conn Creek tributary to the Napa River thence San Pablo Bay, for storage in an existing offstream reservoir.¹



SOURCE: ESRI Data, 2012; AES, 2012

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Figure 1
Regional Location



SOURCE: "Rutherford, CA" USGS 7.5 Minute Topographic Quadrangle, Sections 3 and 4, T7N, R5W, Mt. Diablo Baseline & Meridian ; Wagner & Bonsignore, 2003; AES, 2012

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Figure 2
Site and Vicinity

Project Description

Application 31279 proposes the diversion to offstream storage of 35 afa of water from November 1 through May 14 (**Table 1**). Water would be diverted from existing Point of Diversion (POD) 1 located on Conn Creek tributary to the Napa River thence the San Pablo Bay, to existing offstream Reservoir 1 (**Figure 3** and **Table 2**). The existing diversion facility includes an intake screen in Conn Creek where water travels via a gravity pipe to an existing offset sump. Water is then pumped 1,200 feet through an existing 8-inch PVC pipe to Reservoir 1. Historically a gravel dam (currently unmaintained) extended into Conn Creek, diverting water to the intake screen. The Applicant has not constructed the gravel dam for several years and does not intend on relying on the gravel dam for making diversions under the water right. The maximum rate of diversion to storage would be 2.9 cubic feet per second (cfs).

Reservoir 1 has a capacity of approximately ten to 15 acre-feet (af). In order to accommodate storage, Reservoir 1 would be enlarged by up to 25 af to store 35 af of water through balanced cut-and-fill earthwork. The reservoir enlargement would be accomplished by moving the existing northeasterly embankment about 150 feet northeast, moving the existing northwesterly embankment about 50 feet northwest, and raising the embankment crest by about three feet. Approximately 1.5 acres of vineyard would be removed to accommodate the footprint of the enlarged reservoir. The proposed project would also require the clearing of vegetation on the hillside along the southwesterly side of the existing reservoir.²

The proposed place of use (POU) is fully developed in 75 acres of vineyard (**Table 3**). Water appropriated under Application 31279 would be used for irrigation and frost protection of the existing vineyard, as well as for incidental recreation.

TABLE 1: APPLICATION 31279³

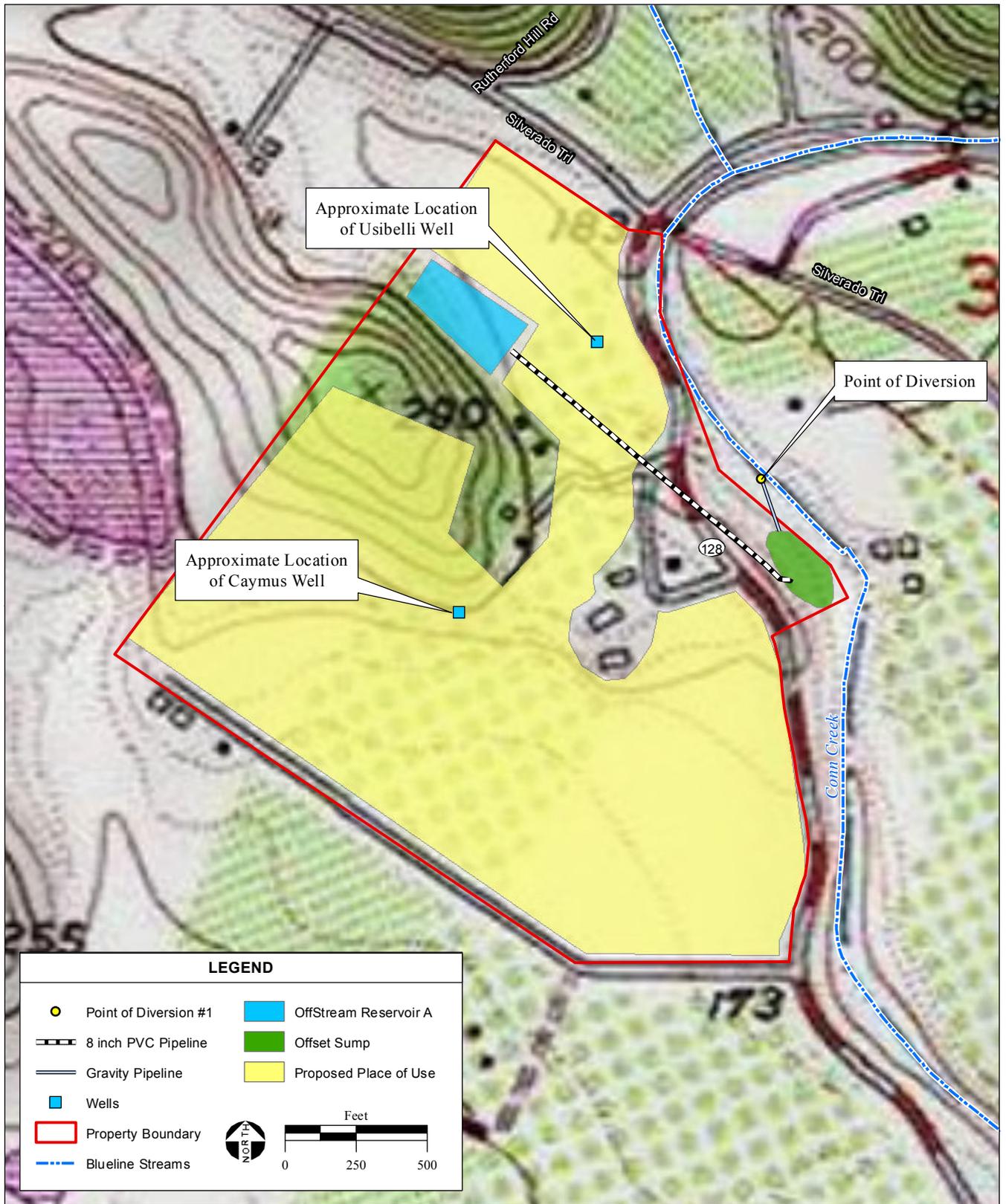
Diversion	Diversion Amount (acre-feet)	Diversion Season	Purposes of Use	Proposed Place of Use (acres)
To Storage	35	November 1 through May 14	Irrigation, frost protection and incidental recreation	75

TABLE 2: POINT OF DIVERSION⁴

POD	Location	Within	Section	Township	Range	B & M
1	Conn Creek tributary to the Napa River thence San Pablo Bay	NE ¼ of SW ¼	3	7N	5W	MD

TABLE 3: PROPOSED PLACE OF USE⁵

Use Within	Section	Township	Range	B & M	Acres	Currently Cultivated
SW ¼ of NW ¼	3	7N	5W	MD	2	Yes
SE ¼ of NW ¼	3	7N	5W	MD	2	Yes
NW ¼ of SW ¼	3	7N	5W	MD	19	Yes
NE ¼ of SW ¼	3	7N	5W	MD	10	Yes
SW ¼ of SW ¼	3	7N	5W	MD	19	Yes
SE ¼ of SW ¼	3	7N	5W	MD	22	Yes
SE ¼ of SE ¼	4	7N	5W	MD	1	Yes
Total					75	



SOURCE: "Rutherford, CA" USGS 7.5 Minute Topographic Quadrangle, Sections 3 and 4, T7N, R5W, Mt. Diablo Baseline & Meridian ; Wagner & Bonsignore, 2003; AES, 2012

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Figure 3
Project Components

Project Background

A public notice was issued for Application 31279 on May 10, 2002. A protest from the California Department of Fish and Wildlife (CDFW) was filed against the proposed project on July 9, 2002. On August 20, 2002, the Applicant's Representative sent a letter to the Division in response to the CDFW's protest letter. The protest is pending.

CDFW expressed concerns about the proposed project resulting in: negative effects on steelhead trout (*Oncorhynchus mykiss*) in the Conn Creek and Napa River watersheds; negative effects associated with potential reduction or interruption of streamflows in downstream reaches; the cumulative effects of this proposed project and other projects; the effect of diversion structures on fish passage; adverse effects to water quality; and adverse impact on naturally occurring flows necessary for channel maintenance. To address these concerns, as discussed in the Hydrology and Water Quality section below, diversions from Conn Creek under Application 31279 would only occur during the diversion season when Lake Hennessey is spilling and after calculated minimum flows are bypassed in Conn Creek.

Application 31279 was accepted by the Division on January 22, 2002; therefore, January 22, 2002 is considered the California Environmental Quality Act (CEQA) baseline date for the project. **Figure 4** shows an aerial photograph of the project site in July 1993, approximately eight and a half years before the CEQA baseline date for the project. Existing project components visible in the 1993 aerial include Reservoir 1 and approximately 75 acres of vineyard. Based on information from the Usibelli Ranch Manager who has worked on the property since 1961, the reservoir was built in 1988 and the POD 1 facilities were first built in 1971. There were approximately 40 acres of vineyard in 1961 and the remainder of the property consisted of prune and walnut orchards, and cages for raising pheasants. The orchards and pheasant cages were converted to vineyards around 1965 and the remainder of the 75-acre vineyard was developed in 1985 along a hillside.⁶

Based on the above discussion, aspects of the project that are part of the CEQA baseline include Reservoir 1 with a capacity of up to approximately 15 af, POD 1 and the associated pipelines, and 75 acres of vineyard. Water diversions authorized under a 1978 Liberty Water Association Agreement (discussed in the Environmental Setting section below) are also part of the CEQA baseline; Usibelli has not requested any water under the Liberty Water Association agreement in recent years as the vineyard has relied on groundwater. The following project elements are not part of the CEQA baseline and will be evaluated under CEQA: the diversion to storage of up to 35 af per year from Conn Creek at POD 1 for storage in Reservoir 1, the enlargement of Reservoir 1 from approximately 15 af to 35 af, and the use of 35 af of water per year on the 75 acre POU for the purposes of irrigation and frost protection, as well as occasional recreational uses.



SOURCE: Wagner & Bonsignore, 2003; USGS DOQQ aerial photograph, 7/10/1993; AES, 2012

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Figure 4
Historic Aerial Photograph

Table 4 provides an overview of project components in relation to the CEQA baseline date.

TABLE 4: CEQA BASELINE AND PROJECT COMPONENTS

Existing Project Components at CEQA Baseline	CEQA Baseline Date	Project Components to be Evaluated under CEQA
<ul style="list-style-type: none"> • Reservoir 1 with a capacity of approximately 15 af • POD 1 and associated water diversion pipelines • 75 acres of vineyard • Diversion of water pursuant to 1978 Liberty Water Association Agreement 	January 22, 2002	<ul style="list-style-type: none"> • Enlargement of Reservoir 1 to 35 af • Diversion to storage of 35 afa from POD 1 • Use of the water on 75 acres for irrigation and frost protection purposes, as well as incidental recreational uses

Environmental Setting

Napa County is part of the hilly to steep mountains of the California Coast Range and has a strong influence from the coastal environment. The county is characterized by a number of northwesterly parallel mountain ridges and intervening valleys of varying widths.⁷ The project site is located in a Mediterranean climate with cool winters and hot, dry summers. The temperature near the project site ranges from an average maximum of approximately 82 degrees Fahrenheit in the summer to an average minimum of approximately 38 degrees Fahrenheit in the winter.⁸ St. Helena is characterized by an average annual precipitation of approximately 34.61 inches per year.⁹ The region is in climate Zone 14 “Ocean Influenced Northern and Central California,” characterized as an inland area with ocean or cold air influence. Elevations onsite range from approximately 160 to 290 feet above mean sea level. Land use in the vicinity of the project site includes agricultural and rural housing. According to the Napa County Zoning Ordinance, the zoning designation for this property is Agricultural Preserve.

The project site is located below the City of Napa’s Conn Dam/Lake Hennessey. Riparian diversions at POD 1 are made pursuant to a 1978 Liberty Water Association “Agreement for Adjustment and Settlement of Water Rights” between the City of Napa, CDFW, and water users located on Conn Creek downstream of Conn Dam. Under the 1978 water agreement, during the City’s permitted diversion season of November 1 to May 1 all inflow to Lake Hennessey up to 0.5 cfs must be bypassed to Conn Creek below the Dam, and all inflow between 0.5 cfs and ten cfs accrues to a water storage account in Lake Hennessey for the benefit of the water users that are parties to the agreement. The City bypasses all inflow to Lake Hennessey during the period of May 1 through October 31. During the frost protection and irrigation season the City of Napa releases stored water into Conn Creek as directed by the agent for the Liberty Water Association water users for rediversion by the water users. If Lake Hennessey spills, the spillage is deducted from the water users’ stored water allocation. During wet years, the water users could have no water in storage in Lake Hennessey due to the spillage deductions. The goal of Application 31279 is to have a water right in years when Lake Hennessey spills and no water is available through the water agreement. Usibelli’s share of accrued Liberty Water Association water is 9.71 percent. Based on the City of Napa’s Lake Hennessey accounting, during the period from 1998 through 2006, there was only one year (2001) when Lake Hennessey did not spill and releases were requested by the Liberty Water Association water

users. In 2001, 2,001 af accrued, 335 af was released for the Liberty Water Association water users and Usibelli's portion would have been 33 af.¹⁰

In addition to the Conn Creek diversion, the Applicant also pumps and stores groundwater in the reservoir primarily for frost protection operations. Groundwater is typically pumped directly for drip irrigation; however, facilities are in place to allow drip irrigation from the reservoir. The amount of future groundwater stored in the reservoir depends in large part on how much surface water is diverted under the water right and the Liberty Water Association agreement. The amount available under the right will vary from year to year depending upon the occurrence of Conn Creek flow, whether the minimum bypass is being met, availability of Liberty Water Association water, and demand for frost protection and irrigation. In some years the entire amount stored in the reservoir could be from groundwater.¹¹

Regulatory Environment

The State Water Board is the lead agency under CEQA with the primary authority for project approval. In addition, the following responsible and trustee agencies may have jurisdiction over some or the entire proposed project:

- U.S. Fish and Wildlife Service (USFWS) – Federal Endangered Species Act (FESA) Compliance
- National Marine Fisheries Service (NMFS) – FESA Compliance
- CDFW – California Endangered Species Act (CESA) Compliance; Lake and Streambed Alteration Agreement
- San Francisco Bay Regional Water Quality Control Board (RWQCB), or State Water Board – Section 401 Water Quality Certification and/or Waste Discharge Requirements
- Napa County – Grading Permit and Erosion Control Plan (ECP) Approval

II. ENVIRONMENTAL IMPACTS

The environmental factors checked below could be potentially affected by this project. See the checklists on the following pages for more details.

<input checked="" type="checkbox"/> Geology and Soils	<input type="checkbox"/> Noise	<input type="checkbox"/> Public Services
<input checked="" type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Utilities and Service Systems
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Aesthetics
<input checked="" type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Hazards and Hazardous Materials	<input checked="" type="checkbox"/> Cultural Resources
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Population and Housing	<input type="checkbox"/> Recreation
<input type="checkbox"/> Agriculture and Forestry Resources	<input type="checkbox"/> Transportation and Circulation	<input checked="" type="checkbox"/> Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Geology and Soils. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated in 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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The geology of the project site and surrounding area is within the California Coast Range geomorphic province. This province is a geologically complex and seismically active region characterized by sub-parallel northwest-trending faults, mountain ranges and valleys. Extensive prehistoric folding and thrust faulting have created the complex geologic conditions that underlie the highly varied topography.¹²

According to the Natural Resources Conservation Service¹³, the project site contains the soils and respective characteristics as detailed in **Table 5** below.

Expansive soils are largely comprised of clays, which greatly increase in volume when water is absorbed and shrink when dried. Expansive soils are of concern because building foundations may rise during the rainy season and fall during the dry season in response to the clay's action; this can cause structural distortion. The soils on the project site have low to high shrink-swell potential.¹⁴

TABLE 5: PROJECT SITE SOIL CHARACTERISTICS¹⁵

Soil Type	Characteristics
Bale loam, 0 to 2 percent slopes	Slow surface water runoff and slight to moderate erosion hazard.
Bale clay loam, 0 to 2 percent slopes (104)	Slow surface water runoff and slight erosion hazard.
Bressa-Dibble Complex, 5 to 15 percent slopes (112)	Medium surface water runoff and slight to moderate erosion hazard.
Bressa-Dibble Complex, 15 to 30 percent slopes (114)	Medium surface water runoff and slight to moderate erosion hazard
Bressa-Dibble Complex, 30 to 50 percent slopes (114)	Medium surface water runoff and slight to moderate erosion hazard.
Cortina very gravelly loam, 0 to 5 percent slopes (124)	Slow surface water runoff and low erosion hazard
Forward gravelly loam, 30 to 75 percent slopes (140)	Medium surface water runoff and slight to moderate erosion hazard
Perkins gravelly loam, 2 to 5 percent slopes (168)	Medium surface water runoff and slight to moderate erosion hazard
Yolo loam, 0 to 2 percent slopes (181)	Slow to medium surface water runoff and slight erosion hazard

Active faults in the County extend from the Bay Area's San Andreas Fault system, a broad north-northwest trending fault system that extends along the California coast line, which is located approximately 30 miles southwest of the City of Napa. Suspected faults in Napa County roughly parallel the northwest-southwest course of the San Andreas Fault. According to the California Geological Survey (CGS) three main active faults have been identified within Napa County, including the Cordelia and Green Valley faults (approximately 15 miles southeast of the project site) and the West Napa fault (approximately 11 miles south of the project site). The Hunting Creek Fault, located approximately 19 miles northeast of the project site, is a possible northward extension of the Green Valley Fault.¹⁶ According to the CGS Index to Earthquake Fault Zone Maps, the subject property is not located in a designated Fault-Rupture Hazard Zone, as identified under the Alquist-Priolo Earthquake Fault Zoning Act.¹⁷ The project site is approximately ten miles northeast of the Alquist-Priolo Fault Zone. The primary seismic hazards in the project site are considered to be ground shaking and ground failure.

Ground shaking occurs as energy, which is released as the earth's crust moves at the earthquake focus, is transmitted as elastic waves up through the bedrock to become a series of complex waves or oscillations in the ground surface. Such ground shaking is one of the main causes of earthquake damage. It is estimated that faults in Napa County are capable of producing earthquakes with a Richter Magnitude of up to 6.75. Such an earthquake, which is considered a moderate-sized event, is capable of producing a substantial amount of damage, even to wood framed structures.¹⁸

Liquefaction and landslides can increase damage from ground shaking. Liquefaction changes water-saturated soil to a semi-liquid state, removing support from foundations and causing buildings to sink. Landslides are considered to be the most important seismic hazard within Napa County, as many areas within the County are susceptible. The project site is located within an area of Napa County with some slide risk.¹⁹ The project site is primarily within an area mapped by Napa County as having high to very high liquefaction susceptibility.²⁰

Findings

Questions A and D

The project site is not located in a fault-rupture hazard zone. Primary seismic hazards for the project site are therefore considered to be ground shaking and ground failure. Use of diverted water on the POU would not place people or structures at risk from these effects, but the enlarged reservoir could be impacted by ground shaking, ground failure or liquefaction. Soils to the southwest and northwest of the reservoir have low shrink-swell potential and soils to the northeast have medium shrink-swell potential. The reservoir would be enlarged according to plans and specifications prepared by a civil engineer registered in California. Potential impacts are considered less than significant.

Questions B and C

Soils in the vineyard areas surrounding the reservoir are mapped as Cortina very gravelly loam (zero to five percent slopes) to the northwest and Yolo loam (zero to two percent slopes) to the northeast and southeast.²¹ These soils have low to medium surface water runoff and a slight erosion hazard. Soils along the hillside southwest and adjacent to the reservoir are mapped as Forward gravelly loam (30 to 75 percent slopes) with medium surface water runoff and slight to moderate erosion hazard. Using Geologic Information Systems (GIS), it was estimated that the slopes around the reservoir (within approximately 50 feet of the reservoir) range from approximately zero to ten percent. Due to the soil types present and the ground disturbing activities associated with construction (e.g., vegetation removal and ground disturbance for reservoir enlargement), the proposed project could result in soil erosion or slope failure.

Section 18.108.070 of the Napa County Zoning Ordinance requires that prior to commencement of a project involving grading, earthmoving, or land disturbance on slopes greater than five percent, an ECP must be prepared by a qualified professional and approved by the County.²² Since slopes of greater than five percent are proposed for grading with the proposed project, ECP approval from Napa County will be required.

In addition, Napa County Conservation Regulations (Napa County Code Section 18.108.070) require the following measures, implemented through ECP approval, to prevent erosion and sedimentation:

- Site development shall be conducted in a manner, based upon the topography and soil type, which creates the least potential for erosion;
- The site shall be developed in phases of workable size which can be completed in a single construction season. Erosion and sediment control measures shall be coordinated with the sequence of grading, development, and construction operations so as to avoid leaving any portion of a disturbed site unprotected from erosion during the winter shutdown period;
- Vegetation removal shall be limited to the minimum amount necessary to accommodate the project;
- As the permanent vegetation cover is maturing, temporary vegetation or other erosion control measures sufficient to stabilize the soil shall be established on all disturbed areas as needed as each stage of grading is completed. New planting shall be protected by

using such measures as jute netting, straw mulching and fertilizing or other means which are specified in the approved Erosion Control Plan;

- All required erosion control facilities, both temporary and permanent, shall be maintained in accordance with the approved ECP;
- All sediment retention devices specified in the approved ECP shall be completed by the grading deadline of the calendar year in which the erosion control plan is approved or clearing and/or grading activity has commenced, whichever is later; and
- Grading and earthmoving activities on slopes greater than five percent shall be limited to the period between April 1 and October 15.

In order to minimize potential erosion impacts from construction activities, Best Management Practices (BMPs) for any disturbed areas will be included in any plan to control erosion for the proposed project. At a minimum, BMPs include, but are not be limited to the following measures:

- Temporary erosion control measures, such as silt fences, staked straw bales, and temporary revegetation, shall be installed in disturbed areas;
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months; and
- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures.

To prevent substantial erosion from construction activities, the following terms will be included in any water right permit or license issued pursuant to Application 31279:

- *No water shall be diverted under this permit, and no construction related to such diversion shall commence, until right holder obtains all necessary permits or other approvals required by other agencies. If an amended permit is issued, no new facilities shall be utilized, nor shall the amount of water diverted increase beyond the maximum amount diverted during the previously authorized development schedule, until right holder complies with the requirements of this term.*

Within 90 days of the issuance of this permit or any subsequent amendment, right holder shall prepare and submit to the Division of Water Rights a list of, or provide information that shows proof of attempts to solicit information regarding the need for, permits or approvals that may be required for the project. At a minimum, right holder shall provide a list or other information pertaining to whether any of the following permits or approvals are required: (1) lake or streambed alteration agreement with the California Department of Fish and Wildlife (Fish & G. Code, § 1600 et seq.); (2) Department of Water Resources, Division of Safety of Dams approval (Wat. Code, § 6002.); (3) Regional Water Quality Control Board Waste Discharge Requirements (Wat. Code, § 13260 et seq.); (4) U.S. Army Corps of Engineers Clean Water Act section 404 permit (33 U.S.C. § 1344.); or, (5) local grading permits.

Right holder shall, within 30 days of issuance of all permits, approvals or waivers, transmit copies to the Division of Water Rights.

- *Prior to the commencement of construction activities, right holder shall obtain a grading permit and approval of an Erosion Control Plan prepared in accordance with Napa County's Conservation Regulations from the County of Napa. The Napa County Erosion Control Plan shall be consistent with the Napa County use requirements in areas with slopes greater than five percent. Copies of the approved grading permit and Erosion Control Plan from the County of Napa shall be submitted to the Deputy Director for Water Rights prior to starting construction. If an Erosion Control Plan is not required, right holder shall provide the Deputy Director for Water Rights a copy of a waiver from Napa County prior to any project construction activity.*
- *No water shall be diverted under this right unless right holder is operating in accordance with a compliance plan, satisfactory to the Deputy Director for Water Rights. Said compliance plan shall specify how right holder will comply with the terms and conditions of this right. Right holder shall comply with all reporting requirements in accordance with the schedule contained in the compliance plan.*
- *Any non-compliance with the terms of the permit shall be reported by the right holder to the Deputy Director for Water Rights within three days of identification of the violation*

The measures above combined with the measures described in the Hydrology and Water Quality section below will reduce potential erosion and sedimentation impacts to a less than significant level.

Question E

No septic tanks or wastewater disposal systems are proposed as part of the project. No impacts would occur.

Summary

After the implementation of the terms outlined, impacts to geology and soils as a result of the proposed project are considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. Air Quality. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The proposed project is located within the San Francisco Bay Area Air Basin, which is under the jurisdiction of the San Francisco Bay Area Air Quality Management District (BAAQMD). The San Francisco Bay Area Air Basin is generally affected by regionally high pollution emissions.

Air quality in the area is a function of the criteria air pollutants emitted locally, the existing regional ambient air quality, and the meteorological and topographic factors that influence the intrusion of pollutants into the area from sources outside the immediate vicinity.

Regulatory Setting

The 1977 Federal Clean Air Act (CAA) required the United States Environmental Protection Agency (EPA) to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for the six “criteria” air pollutants: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO_x), sulfur dioxide (SO_x), respirable particulate matter (PM₁₀), and lead. Pursuant to the 1990 CAA Amendments (CAAA), the EPA has classified air basins (or portions thereof) as either “attainment” or “non-attainment” for each criteria air pollutant, based on whether or not the NAAQS have been achieved. Under the NAAQS, the Bay Area is currently designated a non-attainment area for 8-hour O₃ and is designated as unclassified/attainment for CO. **Table 6** shows national standards for O₃.

The California Air Resources Board (CARB) regulates mobile emissions sources and oversees the activities of County Air Pollution Control Districts (APCDs) and regional Air Quality Management Districts (AQMDs). CARB regulates local air quality indirectly by State Ambient Air Quality Standards (SAAQS) and vehicle emission standards by conducting research activities, and through its planning and coordinating activities.

California has adopted ambient standards that are more stringent than the Federal standards for the criteria air pollutants. Under the California Clean Air Act (CCAA), patterned after the Federal CAA, areas have been designated as attainment or non-attainment with respect to

SAAQS. Under the CAAQS, the Bay Area is designated as a non-attainment for O₃ and particulate matter (PM₁₀, and PM_{2.5}).²³ **Table 6** shows state standards for PM₁₀ and O₃.

TABLE 6: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS²⁴

Pollutant	Averaging Time	SAAQS ^a	NAAQS ^b
Ozone (O ₃)	1 hour	180 µg/m ³	-
	8 hour	137 µg/m ³	147 µg/m ³
Respirable Particulate Matter (PM ₁₀)	24 hour	50 µg/m ³	150 µg/m ³
	Annual	20 µg/m ³	50 µg/m ³

^a SAAQS (i.e., California standards) for ozone and respirable particulate matter are values that are not to be exceeded.

^b NAAQS (i.e., national standards) - The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard.

µg/m³ = micrograms per cubic meter of air

Ozone (O₃)

O₃ is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere. Through a complex series of photochemical reactions, in the presence of strong sunlight and ozone precursors (nitrogen oxides [NO_x] and reactive organic gases [ROG]), O₃ is created. Motor vehicles are a major source of O₃ precursors. O₃ causes eye and respiratory irritation, reduces resistance to lung infection, and may aggravate pulmonary conditions in persons with lung disease.

Carbon Monoxide (CO)

CO is an odorless, invisible gas usually formed as the result of incomplete combustion of organic substances and is primarily a winter pollution problem. CO concentrations are influenced by the spatial and temporal distributions of vehicular traffic, wind speed, and atmospheric mixing. High levels of CO can impair the transport of oxygen in the bloodstream, thereby aggravating cardiovascular disease and causing fatigue, headaches, and dizziness.

Respirable Particulate Matter (PM₁₀)

Respirable particulate matter consists of particulate matter 10 microns (one micron is one one-millionth of a meter) or less in diameter, which can be inhaled. Relatively small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorine or ammonia) that may be injurious to health. Primary sources of PM₁₀ emissions in Napa County are entrained road dust and construction and demolition activities. Burning of wood in residential wood stoves and fireplaces and open agricultural burning are other sources of PM₁₀. The amount of particulate matter and PM₁₀ generated is dependent on the soil type and the soil moisture content.

Regulation of air quality is achieved through both federal and state ambient air quality standards and emission limits for individual sources of air pollutants.

Findings

Questions A and B

The project would not conflict with or obstruct implementation of any air quality plans. Given the small scale of proposed project activities, the project also would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, there is no significant impact.

Question C

Long-term operation of the proposed project would not emit cumulatively substantial criteria pollutants. Potential cumulative air quality impacts associated with the proposed project are limited to those resulting from short-term construction activities involved with development of the project. Construction-related emissions could include exhaust from construction equipment (natural gas and fuel combustion) and fugitive dust from land clearing, earthmoving, movement of vehicles, and wind erosion of exposed soil; this could generate NO_x, ROG, PM_{2.5} and PM₁₀ emissions.

The BAAQMD has prepared guidelines for assessing the air quality impacts of proposed projects.²⁵ The BAAQMD's approach to assessment of construction-related air quality impacts is to emphasize the implementation of effective and comprehensive control measures rather than provide detailed quantification of emissions.²⁶ In order to ensure minimal impacts during construction activities, the project will incorporate the following BAAQMD basic construction mitigation measures²⁷ into the project design:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to, soil piles, graded areas, unpaved parking area, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour.
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to five minutes (required by California Code of Regulations, Title 13, sections 249(d)(3) and 2485). Provide clear signage that posts this requirement for workers at the entrance to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Bay Area Air Quality Management District's phone number shall also be visible to ensure compliance with applicable regulations.

Additionally, to protect air quality and the health of construction workers, the following terms will be included in any water right permit or license issued pursuant to Application 31279:

- *Prior to the start of construction, right holder shall submit a detailed Emission Control and Mitigation Plan to the Deputy Director for Water Rights. Right holder shall also submit a copy of the plan to by the San Francisco Bay Area Air Quality Management District (BAAQMD). The Emission Control and Mitigation Plan shall be consistent with BAAQMD's Air Quality Guidelines and include a monitoring and reporting component to ensure that mitigation measures identified in the Emission Control and Mitigation Plan are implemented. Right holder shall provide evidence to verify implementation of measures identified in the Emission Control and Mitigation Plan within 30 days of completion of construction work to the Deputy Directory for Water Rights. Right holder shall also provide a copy of the evidence to BAAQMD upon request. Evidence may consist of, but is not limited to, photographs and construction records.*

Questions D and E

The application of agricultural chemicals during project operation, such as sulfur products, has the potential to result in objectionable odors. The nearest sensitive receptor, Pope Valley Elementary School, is located approximately three miles to the northwest of the project site and would not be impacted by odors at the project site given the distance. Compliance with permit regulations from the Agricultural Commissioner's Office for the use of soil stabilizers, pesticides, herbicides, and other regulated chemicals would reduce potential onsite impacts to a less than significant level. Impacts are considered less than significant.

Summary

After the implementation of the terms outlined above, impacts to air quality as a result of the proposed project are considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Greenhouse Gases/Global Warming. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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 checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

California has been a leader among the states in outlining and aggressively implementing a comprehensive climate change strategy that is designed to result in a substantial reduction in total statewide greenhouse gas (GHG) emissions in the future. California’s climate change strategy is multifaceted and involves a number of state agencies that are in the process of implementing a variety of state laws and policies. At the local level, the BAAQMD released draft CEQA thresholds on October 9, 2009, which included thresholds for criteria pollutants and GHGs.²⁸ These BAAQMD CEQA guidelines were adopted on June 2, 2010 and were effective as of the adoption date. In May 2011, the CEQA guidelines were updated to incorporate subsequent clarifications and revisions. It should be noted that the BAAQMD CEQA thresholds of significance were suspended by the Alameda County Superior Court in March 2012 until an associated CEQA process can be completed, but the Court did not suspend the thresholds on their merit. A review of the BAAQMD 2009 CEQA Guidelines Update Proposed Thresholds of Significance²⁹ provides substantial evidence and reasonable scientific support for using significance thresholds provided in the BAAQMD CEQA Guidelines. Napa County has prepared a draft Climate Action Plan (CAP), which has undergone public review and is awaiting County approval. A GHG emissions threshold of significance pertinent to tree loss has not been adopted at the state or local level.

Findings

Questions A and B

Construction and operational sources of GHG emissions would likely include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Construction GHG emissions would be reduced with the implementation of the BAAQMD construction emission reduction measures outlined in *Question C* in the Air Quality section above. The BAAQMD’s GHG significance threshold for non stationary sources is 1,100 metric tons of CO₂ per year.³⁰ Operation of the project would emit minimal GHG throughout the year, and would not exceed this significance threshold. Implementation of the oak tree replacement mitigation (planting three oak trees for every one removed) discussed in *Questions B, C and E* in the Biological Resources section would minimize sequestration impacts due to vegetation removal. No significant GHG emissions would occur and the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Impacts are considered less than significant.

Summary

Impacts to GHG emissions as a result of the proposed project are considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site, including through alteration of the course of a stream or river, or substantially increase the rate or volume of surface runoff in a manner that would:				
i) result in flooding on or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) create or contribute runoff water that would exceed the capacity of existing or planned storm water discharge?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) result in substantial erosion or siltation on or offsite?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Place housing or other structures which would impede or re-direct flood flows within a 100-yr. flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Expose people or structures to a significant risk of loss, injury, or death involving flooding:				
i) as a result of the failure of a dam or levee?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) from inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Would the change in the water volume and/or the pattern of seasonal flows in the affected watercourse result in:				
i) a significant cumulative reduction in the water supply downstream of the diversion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) a significant reduction in water supply, either on an annual or seasonal basis, to senior water right holders downstream of the diversion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) a significant reduction in the available aquatic habitat or riparian habitat for native species of plants and animals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) a significant change in seasonal water temperatures due to changes in the patterns of water flow in the stream?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) a substantial increase or threat from invasive, non-native plants and wildlife?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Napa County is divided into three watersheds: Napa River, Putah Creek/Lake Berryessa, and Suisun Creek. The project site lies within the Napa River watershed.³¹ Conn Creek is located adjacent to the project site. The northeast section of the project site is located within the

Federal Emergency Management Agency's (FEMA) 100 year flood zone.³² The remaining portion of the project site is located within FEMA's 500 year flood zone.³³ The project site is not located within a potentially affected coastal area, or located near a large body of water that may be affected by a tsunami or a seiche.

Findings

Questions A, C (iii and iv), and D

Given the distance of the offstream reservoir from Conn Creek (approximately 500 feet), the site slopes around the area of the reservoir (between approximately zero to ten percent within approximately 50 feet of the reservoir), and the existence of the vineyard and developed areas between the reservoir and Conn Creek, the proposed project is not likely to result in discharge of dredged material into Conn Creek during construction or increased erosion or sedimentation to Conn Creek.

However, to protect water quality, in addition to the terms outlined in the Geology and Soils section, the following term will be included in any permit or license issued pursuant to Application 31279:

- *No debris, soil, silt, cement that has not set, oil, or other such foreign substance will be allowed to enter into or be placed where it may be washed by rainfall runoff into the waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area.*

Question B

The water right project does not involve the use of groundwater resources; however, groundwater is pumped and stored for vineyard use on the property. The amount of future groundwater stored in the reservoir depends in large part on how much surface water is diverted under the water right and the Liberty Water Association agreement. The amount available under the right will vary from year to year depending upon the occurrence of Conn Creek flow, whether the minimum bypass is being met, availability of Liberty Water Association water, and demand for frost protection and irrigation. In some years the entire amount stored in the reservoir could be from groundwater.³⁴ Approval of the water right project may decrease demand for groundwater resources. No significant impacts to groundwater resources would occur.

Question C (i and ii)

The proposed project would include ground disturbing and earthmoving activities. These activities would alter the existing drainage pattern from removal of vegetation (including vineyard) for the enlargement of the reservoir. However, this change would be expected to result in only slight changes to the volume and rate of runoff as existing drainage facilities would not be significantly affected and the offstream reservoir footprint would be located within the cleared areas. No structures or grades would be introduced that could redirect flood flows. The terms and BMPs outlined in the Geology and Soils section would prevent substantial erosion from construction activities and project operation, and potential impacts are considered less than significant.

Question E

The proposed project does not involve the development of housing or other structures within the 100-year flood zone. The project site contains areas designated as Zone AE and Zone X on FEMA flood map 06055C0385E. Zone AE are areas within the 100-year floodplain. Zone X includes areas outside the 500-year floodplain. However, enlargement of the reservoir would occur in an area designated as Zone X, which is considered an area outside the 500-year flood zone. No impacts would occur as a result of the proposed project.

Question F

The proposed project includes the enlargement of and use of water at the site of the existing reservoir, but the enlarged reservoir would not be of jurisdictional size under the Division of Safety of Dams. A registered civil engineer would oversee the design and construction of the reservoir enlargement to ensure that it adheres to current standards, thereby minimizing the risk of future flooding from dam failure to a less than significant level. The proposed project would not result in any inundation due to a tsunami or a seiche since the project site is not located within a potentially affected coastal area, or located near a large body of water. Accordingly, there is no impact.

Question G

In determining the amount of water available for diversion, the Division must take into account, whenever it is in the public interest, the amount of water required to maintain instream beneficial uses such as fish and wildlife resources. The DFG-NMFS Draft Guidelines for Maintaining Instream Flows to Protect Fisheries Resources Downstream of Water Diversions in Mid-California Coastal Streams³⁵ (Draft Guidelines) provide an outline for preserving a level of flow that ensures that anadromous fish would not be adversely impacted by diversions. According to the Draft Guidelines, for new diversions in mid-California watersheds that are, or contribute flows to, anadromous streams, a minimum bypass equivalent to the February median flow (FMF) and a diversion season of December 15 through March 31 must generally be maintained.

A Water Availability Analysis (WAA) was prepared for the proposed project on March 19, 2007 by Wagner & Bonsignore Consulting Civil Engineers³⁶ and the analysis was supplemented in a memorandum dated October 13, 2008³⁷ in response to Division comments on the analysis. These documents are on file with the Division.

As noted in the Project Background and Environmental Setting sections above, current diversions at POD 1 are made pursuant to a 1978 Liberty Water Association agreement. Application 31279 proposes that no diversions would be made from Conn Creek unless Lake Hennessey is spilling. From the WAA, "an operational analysis of all storage diverters of record on lower Conn Creek was conducted to evaluate the availability of water to Application 31279. The analysis was conducted with a daily time step in order to accurately reflect diversion rate constraints and to provide a detailed view of when diversions would be made and how they would affect flows in Conn Creek. The daily spillway flows from Lake Hennessey were used to represent total flow in Conn Creek available for diversion."³⁸ The analysis of water supply and potential water diversions in Conn Creek was conducted for the period from November 1 through May 14.

The WAA did not include a calculation of the Cumulative Flow Impairment Index (CFII), described in the Draft Guidelines as the potential level of impairment to stream flow and

calculated by dividing the volume of water that is naturally available by the total volume of water that is, or can be, legally diverted from the watershed through existing water rights. Given the project's location downstream from Lake Hennessey, the CFII at POD 1 and downstream from Application 31279 would be greater than ten percent. According to the Draft Guidelines, if the CFII value at a Point of Interest (POI) is above ten percent, site specific studies are generally warranted to assess potential cumulative impacts of the proposed diversion. However, based on the analysis, during the water years 1998-2006, Lake Hennessey spills prior to May 15 averaged 22,111 af and diversions under Application 31279 would have accounted for approximately 0.2 percent of Lake Hennessey spills.³⁹ The maximum diversion under Application 31279 would range from approximately 0.1 to 0.4 percent, with an average of 0.2 percent, of seasonal Lake Hennessey spills.⁴⁰ With senior diversions downstream of POD 1 (1,171 af) deducted from average Lake Hennessey spills, diversions under Application 31279 would still have accounted for approximately 0.2 percent of Lake Hennessey spills. Based on guidance provided by the State Water Board's vacated 2010 Policy for Maintaining Instream Flows in Northern California Coastal Streams (Policy)⁴¹, a location at or below anadromy at which the proposed project's demand is less than one percent of the remaining unappropriated supply will be considered a location at which the proposed project could not adversely affect instream flows. Given that diversions under Application 31279, which would only occur during Lake Hennessey spills, would be far less than one percent of the unappropriated water supply, the project would not result in a significant cumulative reduction in the downstream water supply.

The project site is located above all other senior water diverters that are downstream of Lake Hennessey. In order to protect senior diverters as well as fish and wildlife habitat from project diversions that may occur prior to downstream areas gaining access to the flow, a bypass higher than the FMF was calculated. To determine the minimum bypass flow (MBF) needed to protect fish and wildlife habitat, bypass rates were calculated based on guidance specified by the Regional Criteria of the Policy.⁴² Based on the Regional Criteria, a bypass rate of 44.4 cfs would be protective of fish and wildlife habitat. The MBF for the project includes this protective flow, in addition to flows attributable to senior diverters (20.2 cfs before March 15 and 26.8 cfs after March 15) and the proposed maximum diversion rate under Application 31279 of 2.9 cfs. The MBF resulting from the inclusion of these factors was calculated to be 67.5 cfs before March 15 and 74.1 cfs after March 15.⁴³ A compliance plan will be submitted to the Division prior to issuance of a permit. With the MBF, the project would not result in a significant reduction in water supply to downstream senior water right holders or fish and wildlife habitat, or a significant change in seasonal water temperatures. The project's proposed diversion season of November 1 through May 14 (as opposed to the December 15 through March 31 diversion season recommended by the Draft Guidelines) would not negatively impact fisheries resources given that the project would only divert water when Lake Hennessey is spilling and after the MBF is bypassed. In addition, as noted in the terms below, to avoid potential instream impacts from frost diversions, water diverted to storage under Application 31279 would only occur during the period between March 15 and May 14 when there are no restrictions imposed by the Watermaster on diversions from the Napa River. The project would not result in a substantial increase or threat from invasive species.

To ensure that water is diverted in accordance with the project description and to minimize the project's potential to cause impacts to hydrology and water quality, the following terms will be included in any water right permit or license issued pursuant to Application 31279:

- *The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed 35 acre-feet per year by storage to be collected from November 1 of each year to May 14 of the succeeding year.*
- *The maximum rate of diversion to offstream storage shall not exceed 2.9 cubic feet per second.*
- *No water shall be diverted under this water right unless the flow over the Lake Hennessey spillway is at or above 67.5 cubic feet per second from November 1 to March 14 and 74.1 cubic feet per second from March 15 to May 14, as measured at the City of Napa's stage gage located on the spillway of Lake Hennessey. In the event that said monitoring device is no longer available for streamflow measurements, right holder shall within 15 days submit a plan, satisfactory to the Deputy Director for Water Rights, to install an equivalent monitoring device as near as practicable to the location of the current monitoring device.*
- *No water shall be diverted under this right unless right holder is operating in accordance with a compliance plan, satisfactory to the Deputy Director for Water Rights. Said compliance plan shall specify how right holder will comply with the terms and conditions of this right. Right holder shall comply with all reporting requirements in accordance with the schedule contained in the compliance plan.*
- *During the period between March 15 and May 14 water may be collected to storage under this permit only when there are no restrictions imposed by the Watermaster on diversions from the Napa River.*

Summary

After the implementation of the terms outlined above, impacts to hydrology and water quality as a result of the proposed project are considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Biological Resources. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Study Area

A biological survey of the project site was conducted by an Analytical Environmental Services (AES) biologist on April 23, 2004.⁴⁴ A copy of the report of findings is on file with the Division, and summarized below. The reconnaissance-level field assessment included the 95-acre property, including 75 acres of developed vineyard, the existing offstream reservoir, and diversion facility on Conn Creek. Conn Creek was also surveyed 300 feet upstream and downstream of the diversion facility. A complete coverage, variable-intensity pedestrian survey was performed, with transect spacing from five to ten meter intervals, and modified to account for differences in terrain, vegetation density, and visibility. All visible fauna and flora were noted, and identified to the lowest possible taxon; habitat types occurring in the survey area were characterized and evaluated for their potential to support regionally occurring special status species; and the survey area was assessed for the presence of jurisdictional water features (waters of the US), isolated wetlands, and other biologically sensitive features.

Regulatory Setting

Federal Endangered Species Act

The USFWS and NMFS implement the Federal Endangered Species Act (FESA) of 1973 (16 USC Section 1531 *et seq.*). Threatened and endangered species on the federal list (50 CFR Subsection 17.11, 17.12) are protected from “take” (direct or indirect harm), unless a Section 10 Permit is granted to an individual or a Section 7 consultation and a Biological Opinion with incidental take provisions are rendered to a lead federal agency. Pursuant to the requirements

of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the project area and determine whether the proposed project would have a potentially significant impact upon such species.

Critical habitat is defined under FESA as specific geographic areas within a listed species range that contain features considered essential for the conservation of the listed species. Designated critical habitat for a given species may not necessarily be currently occupied by that species if it is within the historic range of the species and supports habitat deemed by the USFWS to be important for the recovery of the species. Critical habitat designation applies only to federal actions or actions funded or permitted by federal agencies. If a federal action or an action allowed by federal funding or a federal permit has the potential to adversely affect critical habitat for a listed species, the responsible federal agency is required to consult with the USFWS or NMFS. Under FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536 (3), (4)). Therefore, project-related impacts to these species, or their habitats, would be considered significant and require mitigation. The USFWS also designates species of concern. Species of concern receive attention from federal agencies during environmental review, although they are not otherwise protected under FESA. Project-related impacts to such species would also be considered significant and require mitigation.

California Endangered Species Act

CDFW implements state regulations pertaining to fish and wildlife and their habitat. The California Endangered Species Act (CESA) of 1970 (California Fish and Game (CFG) Code Section 2050 *et seq.*, and CCR Title 14, Subsection 670.2, 670.51) prohibits the take (interpreted to mean the direct killing of a species) of species listed under CESA (14 CCR Subsection 670.2, 670.5). A CESA permit must be obtained if a proposed project would result in the take of listed species, either during construction or over the life of the project. Under CESA, CDFW is responsible for maintaining a list of threatened and endangered species designated under state law (Fish and Game Code Section 2070). CDFW also maintains lists of species of special concern, which serve as “watch lists.” Pursuant to requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state listed species may be present in the project area and determine whether the proposed project would have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and require mitigation.

California Environmental Quality Act (CEQA) Guidelines Section 15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(b) and (d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition of FESA and the section of the Fish and Game Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not yet been listed by either the USFWS or CDFW. Thus, CEQA provides the ability to protect a species from potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

Birds

Most bird species, especially those that are breeding, migrating, or of limited distribution, are protected under federal and state regulations. Under the Migratory Bird Treaty Act of 1918 (16 USC Subsection 703-712), migratory bird species and their nests and eggs are protected from injury or death. Project-related disturbances must be reduced or eliminated during the nesting cycle. California Fish and Game Code Subsections 3503, 3503.5, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. California Fish and Game Code Section 3511 list birds that are “fully protected”, which identifies those species that may not be taken or possessed except under specific permit. Bald and golden eagles are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. These Acts require some measures to continue to prevent bald eagle “take” resulting from human activities.

Plants

The California Native Plant Protection (CNPP) Act of 1977 (California Fish and Game Code Section 1900 *et seq.*) requires CDFW to establish criteria for determining if a species or variety of native plant is endangered or rare. The CNPS inventories the native flora of California and ranks species according to rarity (CNPS, 2010); plants on Lists 1A, 1B, and 2 are considered special status species. List 1 plants are presumed extinct in California, List 1B plants rare or endangered in California and elsewhere, and List 2 plants rare or endangered in California, but more common elsewhere.

Oak Woodlands Conservation Act

The Oak Woodlands Conservation Act (California State Senate Bill 1334) became law on January 1, 2005 and was added to the CEQA statutes as 21083.4. This act requires that a county must determine whether or not a project would result in a significant impact on oak woodlands. If it is determined that a project may result in a significant impact on oak woodlands, then one or more of the following mitigation measures are required:

1. Conserve oak woodlands through the use of conservation easements;
2. Plant an appropriate number of trees, including maintenance of plantings and replacement of failed plantings;
3. Contribute funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and
4. Other mitigation measures developed by the county.

The conversion of oak woodlands on agricultural land used to produce or process plant and animal products for commercial purposes is exempt from mitigation.

Wetlands and Other Waters of the U.S.

Any project that involves working in navigable waters of the U.S., including the discharge of dredged or fill material, must first obtain authorization from the U.S. Army Corps of Engineers (USACE), under Section 404 of the Clean Water Act. CDFW requires notification prior to commencement, and possibly a Lake or Streambed Alteration Agreement pursuant to California

Fish and Game Code Subsection 1601-1616, 5650, if a proposed project would result in the alteration or degradation of a stream, river, or lake in California. The RWQCB may require State Water Quality Certification (Clean Water Act Section 401 permit) before other permits are issued, which may involve implementation of a storm water pollution prevention plan.

Napa County Code

Stream Setbacks

Napa County Code defines streams and provides setbacks for land clearing for agricultural development. Under Section 18.108.030, a “stream” means any of the following:

1. A watercourse designated by a solid line or dash and three dots symbol on the largest scale of the United State Geological Survey maps most recently published, or any replacement to that symbol;
2. Any watercourse which has a well-defined channel with a depth greater than four feet and banks steeper than 3:1 (horizontal to vertical bank ratio) and contains hydrophilic (i.e., water-adapted) vegetation, riparian vegetation or woody vegetation including tree species greater than ten feet in height; or
3. Those watercourses listed in Resolution No. 94-19 and incorporated herein by reference.

Napa County Code 18.108.025 applies setbacks for agricultural development adjacent to streams. Setbacks included in the Code range from 35 to 150 feet measured from the top of bank and increase with the slope of the terrain parallel to the top of bank.

Vegetation Preservation and Replacement

Napa County Code 18.108.100 requires the following conditions when granting a discretionary permit for activities within an erosion hazard area (slopes greater than five percent):

- Existing vegetation shall be preserved to the maximum extent consistent with the project. Vegetation shall not be removed if it is identified as being necessary for erosion control in the approved erosion control plan or if necessary for the preservation of threatened or endangered plant or animal habitats as designated by state or federal agencies with jurisdiction and identified on the county’s environmental sensitivity maps.
- Existing trees six inches in diameter or larger, measured at diameter breast height, (DBH), or tree stands of trees six inches DBH or larger located on a site for which either an administrative or discretionary permit is required shall not be removed until the required permits have been approved by the decision-making body and tree removal has been specifically authorized.
- Trees to be retained or designated for retention shall be protected through the use of barricades or other appropriate methods to be placed and maintained at their outboard drip line during the construction phase. Where appropriate, the director may require an applicant to install and maintain construction fencing around the trees to ensure their protection during earthmoving activities.

- Wherever removal of vegetation is necessitated or authorized, the director or designee may require the planting of replacement vegetation of an equivalent kind, quality and quantity.

Habitat Types

Three habitat types were identified in the project site: riparian scrub, ruderal/developed, and mixed oak woodland (**Figure 5**).

Riparian Scrub

The riparian area consists of the area surrounding the offshore reservoir, the areas near Conn Creek, and the area near the diversion facility located at POD 1 (**Figures 6 and 7**). Vegetation along the perimeter of the reservoir is sparse. Typical vegetation found along the diversion facility and creek areas included: large-leaved sedge (*Carex amplifolia*), paper nutsedge (*Cyperus eragrostis*), wild carrot (*Daucus carota*), and red willow (*Salix laevigata*). This community corresponds to the Riparian Scrub community (63000) in the Holland system⁴⁵, and the vegetation community type is Red Willow series.⁴⁶

Ruderal/Developed

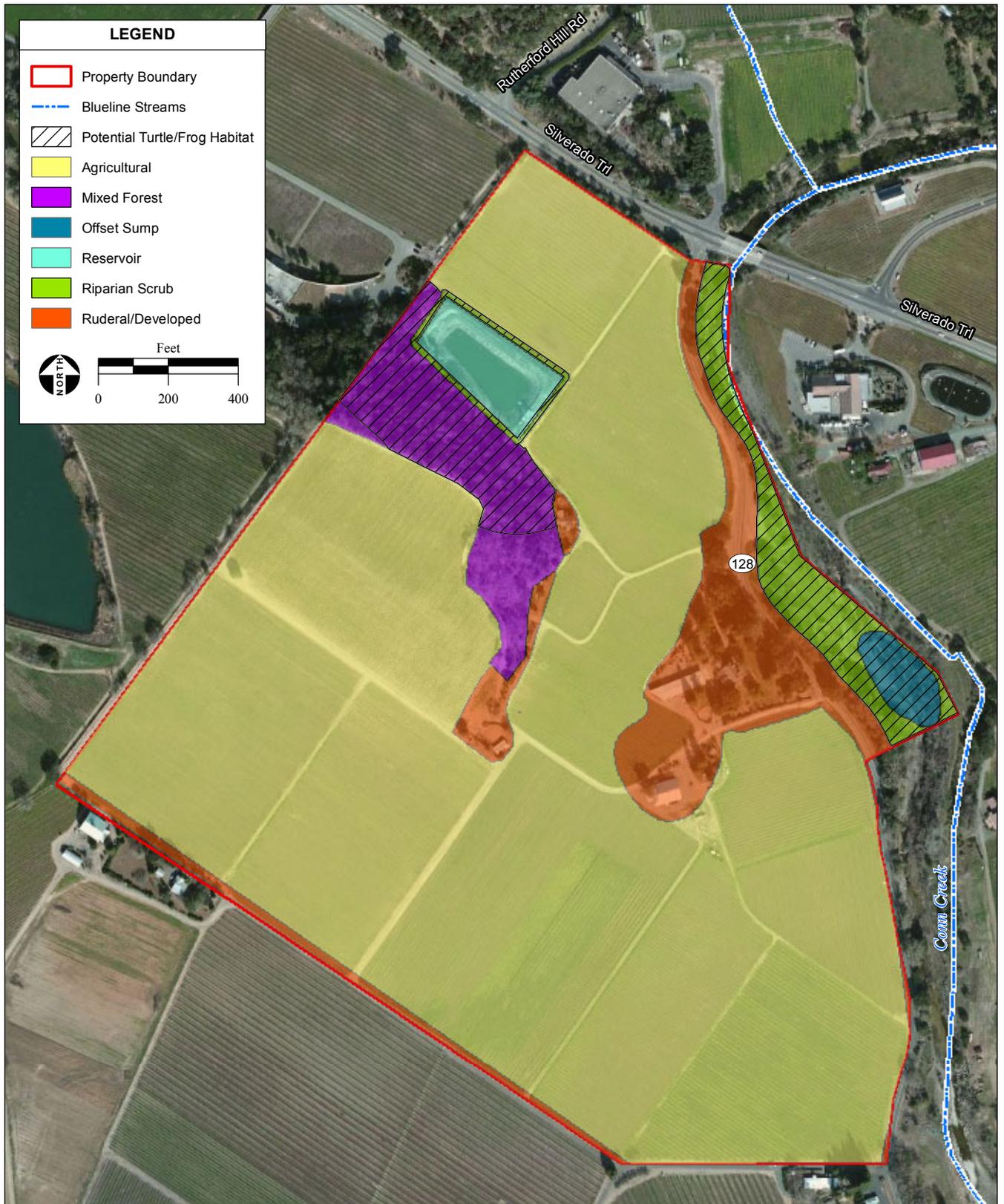
The ruderal/developed area consists of the 75 acres of developed vineyard and the residential area on the property (**Figure 7**). Most of the flora within these areas is cultivated and includes a wide variety of species such as: spruce (*Picea* sp.), Kiwi fruit (*Actinidia chinensis*), Lily of the Nile, (*Agapanthus orientalis*), oleander (*Nerium oleander*), olive (*Olea europea*), cultivated rose (*Rosa* sp.), cultivated grape (*Vitis vinifera*), and coast redwood (*Sequoia sempervirens*).

Mixed Oak Woodland

The mixed oak woodland borders the reservoir's south side (**Figure 7**). This community is an assortment of oaks: Blue oak (*Quercus douglasii*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizenii*), and valley oak (*Quercus lobata*). Gray pine (*Pinus sabiniana*) is also interspersed within the community. This woodland is contiguous with the adjacent property and crosses the property boundary on the northwestern side of the property. This community corresponds to the Cismontane woodlands (71000) in the Holland system, and the vegetation community type is Interior live oak series.⁴⁷

Wildlife

Wildlife observed during the field survey include: garter snake (*Thamnophis elegans*), black-tailed jackrabbit (*Lepus californicus*), minnows (*Cyprinidae* spp.), ground squirrel (*Spermophilus beecheyi*), cliff swallow colony (*Petrochelidon pyrrhonota*), Western pond turtle (*Actinemys marmorata*), mule deer (*Odocoileus hemionus*), turkey vulture (*Cathartes aura*), red-winged blackbird (*Agelaius phoeniceus*), Calliope hummingbird (*Stellula calliope*), killdeer (*Charadrius vociferus*), bullfrog and larva (*Rana catesbeiana*), fence lizard (*Sceloporus occidentalis*), mallard (*Anas platyrhynchos*), blue heron (*Ardea herodias*), crow (*Corvus brachyrhynchos*), California quail (*Callipepla californica*), green heron (*Butorides virescens*), and bluegill and bass within the reservoir.



SOURCE: Wagner & Bonsignore, 2003; USGS DOQQ aerial photograph, 7/10/1993; AES, 2012

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Figure 5
Habitat Types



PHOTO 1

Pump and offset sump area which is gravity fed by Conn Creek during high flows.



PHOTO 3

Another perspective of offset sump area.



PHOTO 2

View of offset sump where water is stored prior to being pumped to the offshore reservoir.



PHOTO 4

Riparian area of offset pump



PHOTO 1
Offstream 15 acre-foot reservoir.



PHOTO 3
Photo facing southeast of vineyard in foreground and reservoir and developed residential areas in background.



PHOTO 2
Ruderal/disturbed areas within residential landscape portion of property; facing north.



PHOTO 4
Edge of woodland and agricultural area on northwest portion of property.

Waters of the U.S.

The term “waters of the U.S.” is defined as:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands; or
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use or degradation of which could affect interstate or foreign commerce including any such waters.

“Wetlands” are defined as:

Waters of the U.S. or isolated features that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

An assessment for the presence of jurisdictional waters of the U.S. and isolated wetland features within the project site was conducted concurrently with the special status species assessment. Although a formal delineation of waters of the U.S. was not conducted as part of this assessment, one offstream reservoir and Conn Creek were identified within the project site. These features have the potential to be considered jurisdictional waters of the US, and may be subject to U.S. Army Corps of Engineers (USACE) regulation under Section 404 of the Clean Water Act.

Special Status Species

For the purposes of this Initial Study, “special status” is defined to include those species that are:

- Listed as endangered or threatened under FESA (or formally proposed, or candidates, for listing);
- Listed as endangered or threatened under CESA (or proposed for listing);
- Designated as endangered or rare, pursuant to Fish and Game Code (§1901);
- Designated as fully protected, pursuant to Fish and Game Code (§3511, §4700, or §5050);
- Designated as species of concern or species of local concern by the USFWS, or as species of special concern by CDFW;
- Plants or animals that meet the definitions of rare or endangered under CEQA;
- Plants listed as rare under the California Native Plant Protection Act; or

- Plants considered by the California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California” (List 1B and 2).

An inventory of regionally occurring special status plant and animal species was gathered in advance of the site assessment. The list was subsequently updated in 2012. This updated list was generated from the results of scientific database queries including a California Natural Diversity Database (CNDDDB) query and search of known occurrences of special status species within five miles of the project site, a USFWS list, and a CNPS list for the “Rutherford, California” and eight surrounding USGS 7.5-minute topographic quadrangles: Calistoga, St. Helena, Chiles Valley, Kenwood, Yountville, Glen Ellen, Sonoma, and Napa. Habitat requirements for each special status species were assessed and compared to the habitats occurring within the property and adjacent areas; each species was assessed for the possibility of occurrence on the project site and adjacent areas. The project site and/or adjacent areas represent potential habitat for nine special status plants and 11 special status animals. The name, regulatory status, habitat requirements, and period of identification for regionally occurring special status species are identified in **Table 7** and briefly discussed below. Bird species on State watch lists are protected under the Migratory Bird Treaty Act and mitigation to ensure no impact to these species is included below.

TABLE 7: REFINED DATABASE RESULTS OF POTENTIAL REGIONALLY OCCURRING SPECIAL STATUS SPECIES⁴⁸

Scientific Name Common name	Status USFWS/ CDFW /CNPS	General Habitat Description	Ideal Period of Identification
Plants			
<i>Arctostaphylos bakeri</i> ssp. <i>bakeri</i> Baker’s manzanita	--/CR/1B	Broad-leaved upland forest and chaparral, often on serpentinite. Elevations: 75-300 meters.	February-April
<i>Calycadenia micrantha</i> Small-flowered calycadenia	--/--/1B	Roadsides, sparsely vegetated areas of rock, scree, talus, and sometimes serpentinite. Chaparral, meadows, seeps, valley and foothill grassland.	June-September
<i>Fritillaria liliaceae</i> Fragrant Fritillary	--/--/1B	Usually on clay soil in grassland; also found on serpentine, in coastal scrub, and coastal prairie (10-1,300 feet).	February-April
<i>Hemizonia congesta</i> ssp. <i>congesta</i> Hayfield tarplant	--/--/1B	Valley and foothill grasslands, sometimes found on roadsides.	April-November
<i>Hesperolinon tehamense</i> Tehama County western flax	--/--/1B	Serpentine chaparral; cismontane woodland. Known from approximately 10 occurrences.	May-July
<i>Horkelia tenuiloba</i> Thin-lobed horkelia	--/--/1B	Broadleaved upland forest, chaparral, and wet areas in valley and foothill grasslands; 100-1,600 feet elevation.	May-July
<i>Juglans californica</i> var. <i>hindsii</i> Northern California black walnut	FSC/--/1B	Riparian forests or woodlands with deep alluvial soils.	April-May
<i>Leptosiphon jepsonii</i> Jepson’s leptosiphon	--/--/1B	Chaparral and cismontane woodland, usually on volcanic soils.	March-May

<i>Trichostema ruygtii</i> Napa bluecurls	--/--/1B	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grasslands, and vernal pools.	June-October
Animals			
<i>Invertebrates</i>			
<i>Syncaris pacifica</i> California freshwater shrimp	FE/CE/--	Found in low gradient, perennial coastal streams. Streams are typically 1-3 feet deep, with exposed live roots along undercut banks, also with overhanging woody debris or stream vegetation.	All year
<i>Amphibians</i>			
<i>Rana aurora draytonii</i> California red-legged frog	FT/CSC/--	Lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent vegetation.	May-November
<i>Rana boylei</i> Foothill yellow-legged frog	FSC/CSC/--	Found in shallow, flowing water, preferentially in small to moderate-sized streams with at least some cobble-sized substrate. Occur from near sea level to 6,000 feet in elevation.	All year
<i>Reptiles</i>			
<i>Actinemys marmorata</i> Western pond turtle	--/CSC/--	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg laying.	All year
<i>Fish</i>			
<i>Oncorhynchus mykiss irideus</i> Steelhead - Central California coast DPS	FT/--/--	San Pablo and San Francisco Bays; Russian, Napa, Coyote, San Lorenzo, and Guadalupe Rivers, from Ukiah to Santa Cruz.	December-July
<i>Birds</i>			
<i>Agelaius tricolor</i> Tricolored blackbird	--/CSC/--	Nests in dense thickets of cattails, tules, willow, blackberry, wild rose, and other tall herbs near water.	April-July
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	FC/CE/--	Found in lowland riparian habitats. Nest and seek cover in densely foliated, deciduous trees and shrubs, especially willows.	June-September
<i>Elanus leucurus</i> White-tailed kite	--/CFP/--	Nests in dense oak, willow or other tree stands near open grasslands meadows, farmlands, and emergent wetlands.	February-September
<i>Lanius ludovicianus</i> Loggerhead shrike	--/CSC/--	Found in a variety of habitats with open areas, available perches, and dense shrubs for nesting.	March-August
<i>Mammals</i>			
<i>Antrozous pallidus</i> Pallid bat	--/CSC/--	Prefers rocky outcrops, cliffs, crevices and manmade structures with access to open foraging habitats.	March-October
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	--/CSC/--	Requires caves, mines, tunnels, buildings, or other human-made structures for roosting. Hibernation sites must be cool and cold, but above freezing.	March-September

STATUS CODES:

FEDERAL: (U.S. Fish and Wildlife Service)

FC Candidate for Federal Listing

FE Listed as Endangered by the Federal Government

FSC Federal Species of Concern

FT Listed as Threatened by the Federal Government

STATE: (California Department of Fish and Wildlife)

CE Listed as Endangered by the State of California

CFP California Fully Protected Species

CR California Listed Rare

CSC California Species of Special Concern

CNPS: (California Native Plant Society)

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

Special Status Plant Species

Baker's Manzanita (*Arctostaphylos bakeri* ssp. *bakeri*)

Federal Status – None

State Status – Rare

Other – 1B

Baker's Manzanita is an evergreen shrub in the heath family (Ericaceae). It occurs in broadleaved upland forest and in chaparral that often contain serpentine soil at elevations from 75 to 300 meters above mean sea level. This species blooms from February to April. It is known from fewer than ten occurrences.

There are no documented occurrences of this species within five miles of the project site. This species was listed after the survey was conducted; however it was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Small-flowered Calycadenia (*Calycadenia micrantha*)

Federal Status – None

State Status – None

Other – CNPS List 1B

Small-flowered calycadenia is an annual plant in the sunflower family (Asteraceae). It is less than one foot in height and has yellow flowers from June through September. It occurs on roadsides, and rocky, sparsely vegetated areas, sometimes on serpentine soils. It may occur in chaparral, meadows and seeps, and valley and foothill grasslands. Most populations are small; the known range of this plant includes Colusa, Lake, Monterey, Napa, and Trinity counties.

There are no documented occurrences of this species within five miles of the project site. This species was listed after the survey was conducted; however it was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Fragrant Fritillary (*Fritillaria liliacea*)

Federal Status – None

State Status – None

Other – CNPS List 1B

Fragrant fritillary is a bulbous perennial herb from the lily family (Liliaceae). It occurs in cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland (often serpentine) habitats at elevations that range from three to 410 meters above mean sea level. This species blooms from February through April.

There are no documented occurrences of this species within five miles of the project site. This species was listed after the survey was conducted; however it was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Hayfield Tarplant (*Hemizonia congesta* ssp. *congesta*)

Asteraceae Family

Federal Status – None

State Status – None

Other – CNPS List 1B

Hayfield tarplant is a soft-hairy annual herb that occurs in coastal scrub and valley and foothill grassland habitats at elevations that range from 20 to 560 meters above mean sea level. This species blooms from April through November and is often seen on roadsides and in fallow fields.

There are no documented occurrences of this species within five miles of the project site. This species was listed after the survey was conducted; however it was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Tehama County Western Flax (*Hesperolinon tehamense*)

Federal Status – None

State Status – None

Other – CNPS List 1B

Tehama County western flax is a small annual plant in the flax family (Linaceae). It grows from two inches to two feet in height and has yellow flowers from May to July. It occurs in chaparral and cismontane woodland, sometimes on serpentine soils. This plant occurs in Alameda, Glenn, Lake, Napa, Stanislaus, Tehama, and Trinity counties; however, this species is known from approximately ten occurrences, primarily on Mendocino National Forest and Bureau of Land Management lands.

The nearest documented occurrence of this species is approximately two miles from the project site. This species was listed after the survey was conducted; however it was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Thin-lobed Horkelia (*Horkelia tenuiloba*)

Rosaceae Family
Federal Status – None
State Status – None
Other – CNPS List 1B

Thin-lobed horkelia is a loosely matted perennial herb that occurs in broadleaf upland forest, chaparral, and valley and foothill grassland habitats at elevations that range from 50 to 500 meters above mean sea level. It has an affinity for sandy soils and mesic openings within forested habitats. Thin-lobed horkelia blooms from May through July.

There are no documented occurrences of this species within five miles of the project site. This species was listed after the survey was conducted; however it was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Northern California Black Walnut (*Juglans californica* var. *hindsii*)

Federal Status – None
State Status – None
Other – CNPS 1B

Northern California black walnut is a deciduous tree in the walnut (Juglandaceae) family. They are found in riparian forest and woodland at elevations up to 440 meters above mean sea level. The known range of this species includes Contra Costa, Lake, Napa, Sacramento, Solano, and Yolo counties. Its blooming period is April to May.

One Northern California black walnut tree was found within the riparian area of Conn Creek during the April 23, 2004 site visit. This tree is located outside of the project area and will not be affected by the project's activities.

Jepson's Leptosiphon (*Leptosiphon jepsonii*)

Federal Status – None
State Status – None
Other – CNPS 1B

Described in 1996, Jepson's leptosiphon is an annual member of the phlox family (Polemoniaceae). It occurs in chaparral and woodland habitats, usually in volcanic soils, from 100 to 500 meters above mean sea level. The species' known range is restricted to Lake, Napa, Sonoma, and Yolo counties. Its blooming period ranges from March to May.

The nearest documented occurrence of this species is within a mile of the project site. This species was listed after the survey was conducted; however it was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Napa Bluecurls (*Trichostema ruygtii*)

Federal Status – None

State Status – None

Other – CNPS List 1B

Napa bluecurls is an annual plant in the mint family (Lamiaceae). It is strongly aromatic and has small, blue flowers from June through October. It may occur in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grasslands, and vernal pools. This plant has been found in Napa and Solano counties.

There are no documented occurrences of this species within five miles of the project site. This species was listed after the survey was conducted; however it was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Special Status Invertebrates

California Freshwater Shrimp (*Syncaris pacifica*)

Federal Status – Endangered

State Status – Endangered

Other – None

The California freshwater shrimp is a ten-legged crustacean that feeds on detritus. It typically occurs in low-gradient, small, lower elevation (less than 116 meters), perennial coastal streams. Ideal habitat for this species includes streams with depths between 30 and 92 centimeters (cm), exposed live roots of riparian trees such as alder (*Alnus* sp.) and willow, undercut banks greater than 15 cm, and abundant overhanging vegetation. The range of California freshwater shrimp includes perennial freshwater streams within Marin, Napa, and Sonoma counties. Critical habitat has not yet been designated for this species, but it does have a recovery plan.⁴⁹

There are no documented occurrences of this species within five miles of the project site. This species was not observed within the project site during the field survey. Habitat existed before Hennessy Dam was constructed and water appropriations were initiated. Under current conditions habitat for this species is diminished.

Special Status Amphibians and Reptiles

California Red-legged Frog (*Rana draytonii*)

Federal Status – Threatened

State Status – Species of Special Concern

Other – None

The California red-legged frog (CRLF) is brown to reddish brown color with prominent dorsolateral folds and diffuse moderate-sized dark brown to black spots that sometimes have light centers. Distribution of red or red- orange pigment is highly variable, but usually restricted to the belly and the undersurfaces of the thighs, legs, and feet. The breeding period is from November through April.

Habitat of CRLF is characterized by dense, shrubby riparian vegetation associated with deep, still or slow-moving water. The shrubby riparian vegetation that structurally seems to be most suitable for CRLF is that provided by arroyo willow (*Salix lasiolepis*); cattails (*Typha* sp.) and bulrushes (*Scirpus* sp.) also provide suitable habitat. Although CRLF can occur in ephemeral or permanent streams or ponds, populations generally cannot be maintained in ephemeral streams in which surface water disappears before metamorphosis (July to September) during most years.

There are no documented occurrences of this species within five miles of the project site, however reported occurrences were found during a query of the CNDDDB that included areas within the Rutherford USGS 7.5-minute quadrangle and the eight surrounding quadrangles. During the site survey, the reservoir and the riparian corridor of Conn Creek were investigated for amphibians; no protocol level field surveys were conducted. The offstream reservoir had numerous bullfrogs (*Rana catesbeiana*) and their tadpoles. CRLF was not found within the reservoir, the diversion facility, or the Conn Creek area.

Foothill Yellow-legged Frog (*Rana boylei*)

Federal Status – None
State Status – Species of Special Concern
Other – None

Foothill yellow-legged frog (FYLF) inhabits partially shaded, rocky streams at low to moderate elevations, in areas of chaparral, open woodland, and forest. Ideal habitat consists of an open perennial stream with rocky or bedrock habitat and small pools. However, the species has been known to be found in small perennial streams with cobble size rocks and riffles. Breeding occurs in pools of the perennial streams with the eggs usually attached to gravel or rocks at the edge of pools or streams.

The nearest documented occurrence of this species is within two miles of the project site. This species was not observed within the project site during the field survey. Conn Creek provides suitable habitat for FYLF; the offstream reservoir does not provide suitable habitat for this species.

Western Pond Turtle (*Actinemys marmorata*)

Federal Status – None
State Status – California Species of Concern
Other – None

The Western pond turtle occurs throughout California. Suitable habitat consists of any permanent or nearly permanent water body or stream with suitable refuges, basking sites, and nesting sites. Refuge sites can be submerged logs or rocks or mats of floating vegetation. Basking sites can be partially submerged rocks or logs, as well as shallow-sloping banks with little or no cover. This species eats a variety of organisms, including aquatic plants, beetles, fish, and frogs.⁵⁰

This species generally leaves the aquatic site only to reproduce and to hibernate. Hibernation typically takes place from October or November to March or April. Egg-laying typically occurs May through July.⁵¹ Western pond turtles nest in open, sunny areas with little vegetation to ensure the quick development of their young. Nesting for the Western pond turtle has been

reported to occur up to 1,391 feet (402 meters) from water,⁵² but is usually closer, averaging 92 feet (28 meters) from aquatic habitat.⁵³ To avoid the drying of late summer and flooding of winter, Western pond turtles hibernate by burrowing into leaf litter in wooded upland habitats up to 1,640 feet (500 meters) away from water.⁵⁴ Two long-term studies on the movements of the Western pond turtle calculated two separate overwintering averages. Rathbun et al. (2002) calculated an average distance from water of 164 feet (50 meters).⁵⁵ In contrast, Reese and Welsh (1997) calculated an overwintering average of 643 feet (196 meters) from water.⁵⁶ By using the relative sample size of each study, a weighted average from the two studies was calculated; this cumulative average overwintering distance from water is about 275 feet.⁵⁷

The Western pond turtle has declined in conjunction with habitat alteration from urbanization and agricultural development. Nesting (i.e., oviposition) and basking habitat (important for egg maturation) are crucial to self-sustaining populations. Loss of emergent wetland vegetation to grazing and trampling makes habitat less suitable for hatchlings and juveniles. Fire suppression on native grasslands may cause overgrowth which can excessively shade nesting grounds. Introduced predators such as bullfrogs and warm-water fish can decimate hatchling turtle numbers.

This species utilizes upland habitats in proximity to suitable aquatic habitats to lay eggs and take refuge from flooding or dry conditions. The Western pond turtle is a habitat generalist and will traverse terrain until suitable habitat for nesting and overwintering is reached.

The reservoir and the Conn Creek riparian area, as well as the mixed oak woodland habitat in the vicinity of the reservoir represent suitable habitat for this species. One Western pond turtle was observed basking in Conn Creek during the April 23, 2004 site visit.

Special Status Fish

Steelhead – Central California Coast DPS (*Oncorhynchus mykiss irideus*)

Federal Status – Threatened

State Status – None

Other – None

Central California Coast steelhead trout migrate into the Napa River during the initial storm events and high pulse flows during the winter months and thus display a winter run life history strategy. Steelhead typically spawn in streams tributary to main-stem waters in search of rich sources of spawning gravels but typically, most spawning does not occur until later in the spring to avoid damage from high winter flows.⁵⁸ Similar to salmon, steelhead fry emergence occurs after about six weeks at 15 degrees Celsius; warmer water temperatures in the spring can increase development rates. Juvenile residency is highly variable and can last from a few months to up to two years depending on environmental conditions. Most out migrants will ride out high spring pulse flows into the estuary, where they will smolt prior to entering the ocean environment. Adults will return from the ocean after three to five years and unlike other salmonids, can spawn multiple times. NMFS critical habitat has been designated in the Napa River basin for the Central California Coast steelhead ESU⁵⁹. Historically, prior to the construction of Hennessy Dam, Conn Creek supported a steelhead population. There is currently the potential for steelhead to occur at POD 1 and there is marginal rearing habitat. Habitat has declined due to seasonal drying below Lake Hennessey (typically by June) and clearing of riparian vegetation and channel straightening for flood control measures.⁶⁰

Special Status Birds

Tricolored Blackbird (*Agelaius tricolor*)

Federal Status – None

State Status – Species of Concern (Status applies to nesting colony)

Other – None

This species is largely found in the Central Valley; as well as coastal areas from Sonoma County south. Populations are also documented from the Peninsular Range near San Diego County and extreme northern California. Known from the Central Valley and surrounding foothills, throughout coastal and some inland localities in southern California, and scattered sites in Oregon, western Nevada, central Washington, and western coastal Baja California. It nests in dense vegetation such as cattails, tules, thickets of willow, blackberry, thistle, wild rose, and tall herbs. Nests are typically located over or near fresh water, especially in emergent wetland, and may be located up to four miles from foraging areas. This species forages in grassy fields, cropland, flooded land, and along edges of ponds.

There are no documented occurrences of this species within five miles of the project site. This species was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*)

Federal Status – Candidate for Federal Listing

State Status – Endangered

Other – None

Western yellow-billed cuckoo inhabit deciduous riparian thickets or forests with thick understory vegetation, contiguous with slow-moving waterways. Willows tend to be a dominant species of the known habitat. Prey base consists of large insects and occasionally frogs or lizards. Once widespread and common throughout the lowlands of California, the numbers have been drastically reduced by the loss of riparian habitat.

There are no documented occurrences of this species within five miles of the project site. This species was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

White-tailed Kite (*Elanus leucurus*)

Federal Status – None

State Status – Fully Protected

Other – None

White-tailed kites are yearlong residents in the Central Valley, Coast Ranges, and coastal areas in California. Foraging occurs in open grasslands, meadows, farmland, and emergent wetlands. Prey includes small mammals, small birds, voles, amphibians, reptiles, and insects. Roosting habitat consists of trees with dense canopies. Nesting takes place from February through October with a peak season ranging May to August. White-tailed kite is a yearlong resident throughout most of California. White-tailed kite nests in a variety of forested habitats and often selects oaks, cottonwood, or eucalyptus trees to build their nests in trees.

The nearest documented occurrence of this species is within a mile of the project site. This species was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Loggerhead Shrike (*Lanius ludovicianus*)

Federal Status – None

State Status – Species of Concern (nesting)

Other – None

The loggerhead shrike is a common resident and winter visitor in lowlands and foothills throughout California. This species prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. They are a year-round resident and breed from March to August. Nest sites are usually well concealed and can be up to 50 feet above ground. Perches are used to hunt insects, reptiles, and amphibians; although they will hunt small mammals and birds.

There are no documented occurrences of this species within five miles of the project site. This species was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Special Status Mammals

Pallid Bat (*Antrozous pallidus*)

Federal – None

State – Species of Concern

Other – None

Pallid bat occurs from British Columbia to Texas south to Baja California and central Mexico.⁶¹ In California, pallid bat occurs throughout the state except in the high Sierra Nevada Range from Shasta County to Kern County. The pallid bat is most commonly found in arid and semi-arid regions with open habitats and rocky areas for roosting. This species has three different roosts: the day roost is usually in a warm horizontal opening such as in attics or rock cracks; the night roost is usually in the open, near foliage; and the hibernation roost, which is often in buildings, caves, or cracks in rocks. Pallid bats are insectivores but will occasionally forage on lizards as well.⁶² The pallid bat is a medium-sized bat with large wide ears that are clearly separated at the base. This species occurs in a wide variety of habitats including grasslands, shrublands and chaparrals, woodlands, and forests. It forages over open ground and is mostly a nocturnal hunter. Pallid bat (like most bat species) is most active during the dawn and dusk hours. Pallid bat mates during the months of October through February and most young are born from April through July.

The nearest documented occurrence of this species is within a mile and a half of the project site. This species was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Townsend's Big-eared Bat (*Corynorhinus townsendii*)

Federal Status – None

State Status – Species of Special Concern

Other – None

Townsend's big-eared bat is found throughout California in all habitats except subalpine and alpine, with the greatest abundance in mesic habitats. Within these habitats, they require caves, mines, tunnels, buildings or other man-made structures for roosting. It forages nocturnally along habitat edges gleaning over brush and trees using echolocation. Peak foraging activity occurs late in the evening preceded by flights close to the roost. Townsend's big-eared bats will hibernate from October to April. Mating typically occurs from November to February, but many females are inseminated before hibernation begins. Townsend's big-eared bats are extremely sensitive to roosting site disturbance; one visit can result in roost abandonment.

The nearest documented occurrence of this species is approximately four and a half miles from the project site. This species was not observed within the project site during the field survey. Potential habitat for the species occurs on the project site.

Findings

Question A

Twenty special status species, including nine special status plants and 11 special status animals, have the potential to occur onsite. Of these species, one special status plant (Northern California black walnut tree) and one special status animal (Western pond turtle) were observed onsite.

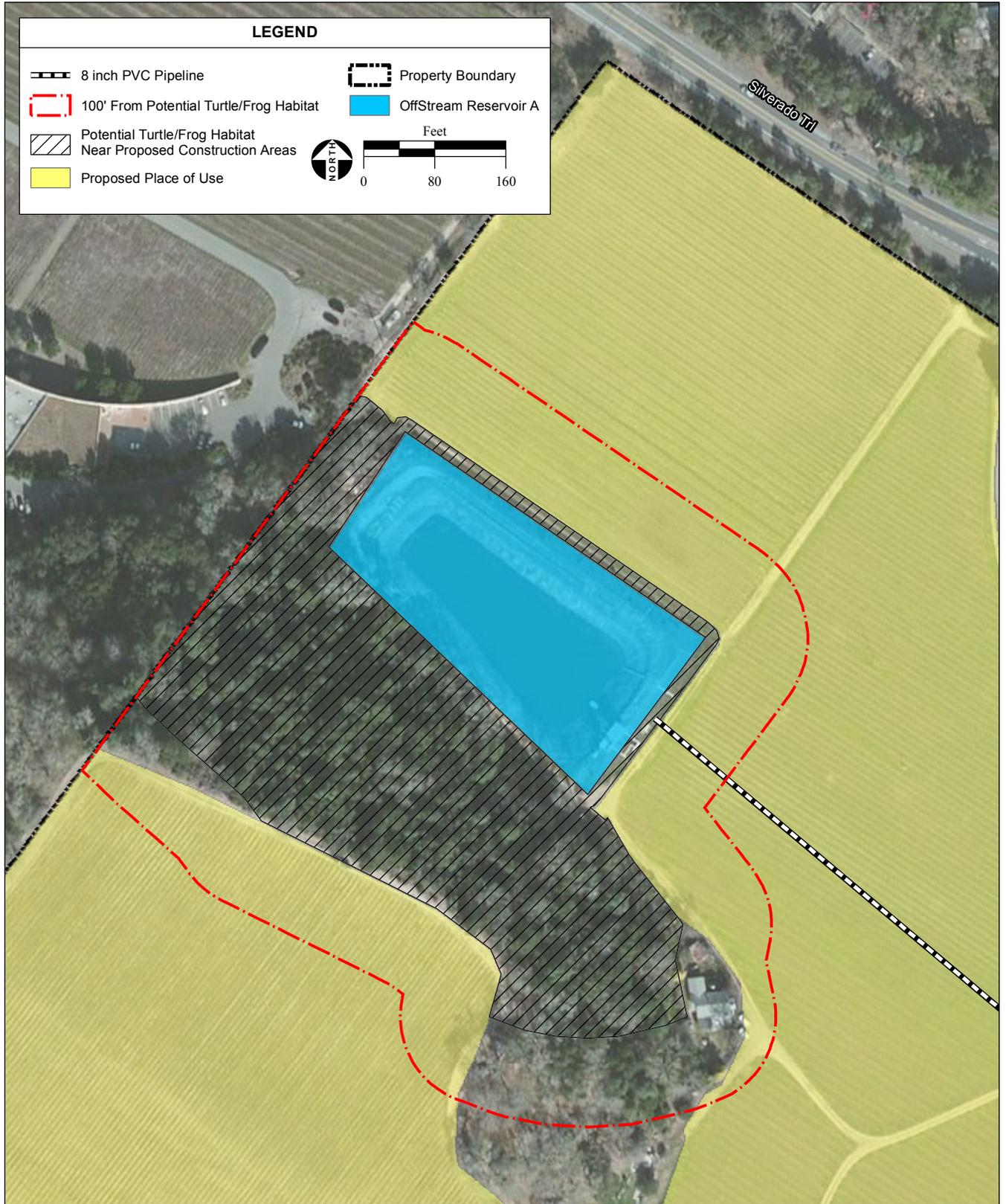
One Northern California black walnut tree was found within the riparian area of Conn Creek during the April 23, 2004 site visit, and it would not be affected by the project. To avoid impacts to any special status plant species that may have become established since the last botanical survey of the property in 2004, the following term will be included in any permit or license issued pursuant to Application 31279:

- *Prior to the onset of construction activities, a qualified biologist shall conduct a pre-construction survey for regionally occurring special status plant species during their bloom periods. The results of the survey shall be submitted to the Deputy Director for Water Rights prior to any ground moving or construction activities. If any special status plant species are found during the pre-construction survey, a 25-foot no-disturbance buffer shall be established around the species' locations to avoid direct or indirect impacts. The species location(s) shall be indicated on a map that shall be submitted to the Deputy Director for Water Rights with the survey report. An exclusionary fence shall be installed around the buffered areas prior to any construction within 100 feet of the species location. No encroachment into the fenced areas shall be permitted and fencing shall remain in place until all construction activities have ceased. The buffers shall be permanently avoided and no activity shall occur within the buffer zones, including, but not limited to grading, road construction, fencing, storage areas, and irrigation, except permitted crossings consistent with United States Army Corps of Engineers, Section 404 permit (33 U.S.C. § 1344.) and the California Department of Fish and Wildlife Lake and Streambed Alteration Agreement (DFG Code 1600 et seq.) requirements.*

The reservoir and the Conn Creek riparian area, as well as the mixed oak woodland habitat in the vicinity of the reservoir represent suitable habitat for Western pond turtle (shown in **Figure 5**). One Western pond turtle was observed basking in Conn Creek during the April 23, 2004 site visit. Construction activities associated with the reservoir enlargement could temporarily impact habitat for this species, although no turtles were seen at the reservoir. Potential turtle habitat that could be impacted during construction is illustrated in **Figure 8**. These areas should be surveyed prior to construction and protected with exclusion fencing during construction, as indicated in the terms below. To protect Western pond turtles, the following term will be included in any permit or license issued pursuant to Application 31279:

- *Within 14 days prior to the onset of construction activities, a qualified biologist shall conduct pre-construction surveys for Western pond turtle within all areas that fall within 100 feet of any suitable aquatic and upland nesting habitat for this species as shown in Figure 8 of the Usibelli Trust Initial Study/Mitigated Negative Declaration. If Western pond turtles are observed during the pre-construction survey, the Division of Water Rights and the California Department of Fish and Wildlife shall be contacted; any and all construction activities will be delayed until an appropriate course of action is established and approved by the California Department of Fish and Wildlife. If no Western pond turtles are observed during the pre-construction survey, then construction activities may begin. If construction is delayed or halted for more than 30 days, another pre-construction survey for Western pond turtle shall be conducted. Within seven days of the pre-construction survey, a report of findings from the survey shall be submitted to the California Department of Fish and Wildlife with a copy to the Deputy Director for Water Rights.*

During construction, a qualified biological monitor who has been approved by the California Department of Fish and Wildlife to relocate Western pond turtles shall be onsite to ensure that no Western pond turtles are harmed. If Western pond turtles are observed in the construction area at any time during construction, the onsite biological monitor shall be notified and construction in the vicinity of the sighting shall be halted until such a time as a turtle has left the construction zone of its own volition or the approved biologist relocates the turtle. If a siting occurs during construction, the biologist shall prepare a report of the event and submit it to California Department of Fish and Wildlife.



SOURCE: "USGS DOQQ aerial photograph, 7/10/1993;
Wagner & Bonsignore, 2003; AES, 2012

Usibelli Trust Water Rights Application Project / 203538 ■

Figure 8
Potential Turtle/Frog Habitat Near Proposed Construction Areas

Suitable habitat for the California red-legged frog and foothill yellow-legged frog occurs onsite (shown in **Figure 5**). Potential frog habitat that could be impacted during construction is illustrated in **Figure 8**. These areas should be surveyed prior to construction and protected with exclusion fencing during construction, as indicated in the terms below. The following terms will be included in any permit or license issued pursuant to Application 31279 to protect special status amphibians:

- *Within 14 days prior to the onset of construction activities, a qualified biologist shall conduct pre-construction surveys for California red-legged frog and foothill yellow-legged frog within all areas that fall within 100 feet of suitable habitat for these species as shown in Figure 8 of the Usibelli Trust Initial Study/Mitigated Negative Declaration. If either of these species are observed within the project site during the pre-construction survey, Division of Water Rights, United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife shall be contacted and any and all construction activities must be delayed until an appropriate course of action can be established and approved by United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife. If no California red-legged frog and/or foothill yellow-legged frog are observed within the project site during the pre-construction survey, the right holder shall notify the Deputy Director for Water Rights of the results of the survey before any construction begins. If construction is delayed or halted for more than 30 days, another pre-construction survey for California red-legged frog and foothill yellow-legged frog shall be conducted.*

For construction activities within 100 feet of suitable habitat as shown in Figure 8 of the Usibelli Trust Initial Study/Mitigated Negative Declaration, exclusion fencing shall be erected for exclusion for California red-legged frog and foothill yellow-legged frog. Once the exclusion fencing is erected, the qualified biologist shall return to the project site once a week during the construction period to inspect the fencing and confirm that no frogs have access to the exclusion zone. If either of these species is observed within the project site during construction, the Division of Water Rights, United States Fish and Wildlife Service and/or California Department of Fish and Wildlife must be contacted and all construction activities must be delayed until an appropriate course of action can be established and approved by United States Fish and Wildlife Service and/or California Department of Fish and Wildlife.

- *For the protection of potential California red-legged frog and the Western pond turtle habitat and to allow for the growth of riparian vegetation along the reservoir, right holder shall:*
 - a. *Once construction of the proposed project is complete, right holder shall maintain a 50-foot wide setback around the enlarged reservoir. Except for the exclusions stated herein, no ground disturbing activities shall occur within the 50-foot wide setback area, including, but not limited to, grading, herbicide spraying, roads, fencing, and use or construction of storage areas. There is excluded from the 50-foot wide setback area established herein all existing planted landscape areas, roads and roadways, bridges, equipment and material storage areas, buildings, structures, fences, wells, pipes, drainage facilities, utility lines and poles, pumps, sumps, water diversion and storage facilities, and access to all of the foregoing existing features for purposes of operation, maintenance and replacement, as such facilities and access exists now or may from time to time be modified. Equipment access through the 50-foot wide setback area shall be limited to activities necessary for the ongoing*

operation of the reservoir and shall incorporate best management practices to minimize disturbance to water, soils, and vegetation. Natural vegetation shall be preserved and protected within the setback area. Planting of native riparian vegetation within the setback area is allowed;

- b. Obtain approval of the United States Fish and Wildlife Service, Sacramento Endangered Species Office, and the Department of Fish and Wildlife prior to any reservoir dredging operation. Right holder shall submit to the Deputy Director for Water Rights evidence of agencies' approval prior to any future reservoir dredging operations;*
- c. Refrain from disturbing the fringe of emergent (wetland) vegetation in the reservoir during dredging operations;*
- d. Make no introduction of non-native fish species into the reservoir;*
- e. Consult with the United States Fish and Wildlife Service and California Department of Fish and Wildlife to develop and implement an acceptable bullfrog eradication program. The eradication program may require periodic draining of the reservoir.*

These requirements shall remain in effect as long as water is being diverted under any permit or license issued pursuant to Application 31279.

Potential impacts to other aquatic species are addressed in *Question D* below. The proposed project would not significantly impact habitat for special status bat species.

The nests and eggs of any bird are protected from take pursuant to California Fish and Game Code Section 3503, and migratory birds' nests and eggs are also protected under the Federal Migratory Bird Treaty Act. Construction activities associated with reservoir enlargement would require the removal of vegetation on the hillside along the reservoir's southwesterly side, as well as the removal of grape vines. As noted in *Questions B, C and E* below, the extent of disturbance to the hillside adjacent to the reservoir during construction is dependent on the final reservoir enlargement design plans, but tree species that may be impacted include blue oak, black oak, interior live oak, valley oak and gray pine. Trees and snags within the project site provide potential habitat for nesting and migratory bird species. To protect special status birds, the following terms will be included in any permit or license issued pursuant to Application 31279:

- If construction activities are to occur between February 1 and September 30, a qualified biologist shall conduct a pre-construction survey for the purpose of identifying nesting bird species. The pre-construction survey shall include all potential nesting habitat within 500 feet of proposed construction areas. The survey shall be conducted no more than 14 days prior to the beginning of construction activities. If an active raptor or migratory bird nest is found during the pre-construction survey, the right holder shall notify the California Department of Fish and Wildlife and the United States Fish and Wildlife Service. If an active raptor nest is found during the pre-construction survey, a 500-foot no-disturbance buffer shall be established and maintained around the nest until all young have fledged. If an active nest of any other migratory or non-migratory bird is found, a 250-foot buffer shall be established around the nest until all young have fledged. A report of the findings and actions taken shall be submitted to the Division of Water Rights prior to construction activities.*

Questions B, C and E

No riparian or wetland habitats would be impacted by the proposed project. The existing Conn Creek diversion facility will require a Lake and Streambed Alteration Agreement with CDFW (see term in the Geology and Soils section, *Questions B and C*).

The extent of disturbance to the hillside adjacent to the reservoir during construction is dependent on the final reservoir enlargement design plans, but tree species that may be impacted include blue oak, black oak, interior live oak, valley oak and gray pine.

A long-term wildlife habitat maintenance plan will be implemented to mitigate oak tree impacts. Annual monitoring reports will include, but not be limited to, a map of planting locations; documentation of species of plantings, size and health of each tree; and photographic evidence documenting progress of replacement trees. The following term will be included in any permit or license issued pursuant to Application 31279:

- *Right holder shall, for the maintenance of oak woodland, plant three oak trees for every one oak tree removed during reservoir enlargement. Trees may be planted in groves in order to maximize wildlife benefits and shall be native to Napa County. The tree species and planting scheme shall be approved by the California Department of Fish and Wildlife prior to planting. Right holder shall submit to the Deputy Director for Water Rights a copy of the approved planting scheme.*

Five years after completion of the tree planting program, photo documentation showing the trees shall be submitted to the Deputy Director of the Division of Water Rights. Right holder shall replace plants as needed to assure a 75% survival rate.

Right holder shall prepare a long-term wildlife habitat maintenance plan for the re-planted oak woodland in consultation with the California Department of Fish and Wildlife; right holder shall submit a copy of this plan to the Deputy Director of the Division of Water Rights. Any changes to this plan must be approved by the California Department of Fish and Wildlife; right holder shall submit a copy of any approved changes to the Deputy Director of the Division of Water Rights. The re-planted oak woodland shall be maintained as wildlife habitat as long as water is being diverted under any permit or license issued pursuant to Application 31279.

Question D

The proposed project would not interfere substantially with resident or migratory fish species or other aquatic species or wildlife movement corridors, and it would not impede the use of native wildlife nursery sites or contribute to wildlife habitat fragmentation. As discussed in the Hydrology and Water Quality section, *Question G*, the diversion facility only diverts water during high flows, at an average of approximately 0.2 percent of seasonal Lake Hennessey spills, and the project would maintain a bypass at the point of diversion during the diversion season of 67.5 cfs before March 15 and 74.1 cfs after March 15. Potential impacts to aquatic species would be less than significant.

Question F

No Habitat Conservation Plan or Natural Community Conservation Plan has been adopted for the project site. The proposed project would not result in conflicts with any approved local,

regional, state, or federal Habitat Conservation Plan. No project related impacts would occur.

Summary

The proposed project could result in potentially significant impacts to biological resources. However, with implementation of the identified terms, potential impacts would be considered less than significant.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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6. Agriculture and Forestry Resources. In determining whether impacts to agricultural resources are significant environmental impacts, 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. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) 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"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Environmental and Regulatory Setting

Agriculture and agricultural production are prevalent land uses in Napa County. Fertile valley and foothill areas have been identified by Napa County as areas where agriculture is and should continue to be the predominant land use. Urban-centered growth and agricultural preservation are objectives of the county.⁶³ The project site lies within an area zoned and designated as

Agricultural Preserve (see the Land Use and Planning section). The project site is designated within the Napa County General Plan as Agricultural Resource.⁶⁴

Findings

Question A

The existing vineyard onsite is located within land designated as Prime Farmland by the Farmland Mapping and Monitoring Program.⁶⁵ As noted in *Questions B and C* in the Geology and Soils section, construction of the proposed project would remove approximately 1.5 acres of vineyard to allow for the enlargement of the offstream reservoir. Although these 1.5 acres would change from vineyard use to reservoir use, the reservoir would be used to water the existing vineyard, thereby remaining a component of the site's overall agricultural use. Impacts would be less than significant.

Question B

The project site is not designated as Williamson Act Contract land and project activities would not conflict with the existing zoning for agricultural use.⁶⁶ No impacts would occur.

Questions C and D

The project site is not located in an area zoned for timber production and the proposed project would not convert forest land to non-forest use. No impacts would occur.

Question E

Although approximately 1.5 acres of vineyard would be removed for the enlargement of the reservoir, and this land is located within land designated as Prime Agricultural, the land would still be used for agricultural purposes. No other changes are proposed that could result in further conversion of Prime Farmland to non-agricultural uses, and there is no conversion of forest land to non-forest use proposed. Impacts would be less than significant.

Summary

The proposed project would not result in significant impacts to agriculture or forestry resources.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
7. Noise. Would the project result in:				
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 expose people residing in or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing in 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

The dominant sources of noise in Napa County consist of highway traffic, railroads, airports, industry/commerce, and agriculture. Major noise sources in the rural/agricultural areas of Napa County consist primarily of agricultural noise and occasional construction noise. Agricultural noise includes general machinery use, pest control devices often use noise to drive away birds from agricultural areas, and frost protection devices, which employ engine-driven propellers to move air in a frost threatened field.⁶⁷ The nearest airfield to the project site is the Angwin Airport, located approximately six miles to the northwest.

Regulatory Setting

The Napa County Noise Ordinance 8.16.080 requires that construction activities be conducted in such a manner that the maximum noise levels at surrounding residential properties will not exceed 75 dBA between 7:00 AM and 7:00 PM and 60 dBA between 7:00 PM and 7:00 AM.

Noise sensitive areas identified within Napa County are those areas that are subject to noises that adversely affect what people are doing on the land.⁶⁸

As indicated in the noise goals and policies in the Community Character Element of the Napa County General Plan, sounds generated by normal agricultural activities are a necessary and unavoidable part of the community's character and the right to farm principle.

Napa County Code Section 2.94.020 Right to Farm - Conditions states:

No existing or future agricultural activity, operation or facility, or any of its appurtenances, conducted or maintained for commercial purposes in a manner consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, public or private, due to any changed condition in or about the county, after the same has been in operation for more than three years if it was not a nuisance at the time it began. Provided, however, that such agricultural operations must comply with all provisions of this code and further provided that the provisions of this section shall not apply whenever a nuisance results from the negligent or improper operation of any agricultural operation.

Napa County Code (Section 8.16.090 E) states the exemptions to noise regulations:

Agricultural operation. All mechanical devices, apparatus, or equipment associated with agricultural operations conducted on agricultural property.

Findings

Questions A-D

The proposed project would result in seasonal and temporary noise generation related to short-term construction activities to expand the existing reservoir. At the project site, construction activities would require the use of heavy equipment. During construction and operation, work would be conducted during daylight hours. Given the existing rural and agricultural nature of the area, the proposed project would not expose sensitive receptors to substantial noise, and impacts are considered less than significant.

Questions E and F

The nearest public airport to the project site, Angwin Airport, is located approximately six miles to the northwest. No impacts would occur. The project site is located approximately 3.5 miles from a private airstrip operated by the St. Helena Fire Department; however, the proposed project would not expose people residing in or working in the project area to excessive noise levels.

Summary

Impacts to noise as a result of the proposed project are considered less than significant.

8. Land Use and Planning. Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

Napa County General Plan

The project site lies within an area designated as Agricultural Resource by the 2008 Napa County General Plan. The Napa County General Plan describes the intent of the Agriculture, Watershed and Open Space designation as follows:

To provide areas where the predominant use is agriculturally oriented; where watersheds are protected and enhanced; where reservoirs, floodplain tributaries, geologic hazards, soil conditions, and other constraints make the land relatively unsuitable for urban development; where urban development would adversely impact all such uses; and where the protection of agriculture, watersheds, and floodplain tributaries from fire, pollution, and erosion is essential to the general health, safety, and welfare.⁶⁹

General uses of the Agriculture, Watershed and Open Space designation provided by the General Plan consist of agriculture, processing of agricultural products, and single family dwelling.⁷⁰

The Conservation Element of the Napa County General Plan provides the following applicable policies for Agricultural Lands:

Applicable Conservation Policies:

- a. Limit growth to minimize urban development on agricultural land and reduce conflict with the agricultural operations and economy.
- b. Encourage the use of recycled water, particularly within groundwater deficient areas, for vegetation enhancement, frost protection, and irrigation to enhance agriculture and grazing.
- c. Protecting trees and shrubs on rangelands for wildlife habitat and aesthetic purposes and encouraging alternate uses of rangelands, such as wildlife and open space, if grazing is phased out.
- d. Require that existing significant vegetation be retained and incorporated into agricultural projects to reduce soil erosion and to retain wildlife habitat. When retention is found to be infeasible, replanting of native or adapted vegetation shall be required.

- e. Minimize pesticide and herbicide use and encourage research and use on integrated pest control methods such as cultural practices, biological control, host resistance and other factors.⁷¹

Napa County Zoning Ordinance

The project site lies within the Agricultural Preserve (AP) District. The Napa County Zoning Ordinance describes the intent of the AP designation as follows:

The AP district classification is intended to be applied in the fertile valley and foothill areas of Napa County in which agriculture is and should continue to be the predominant land use, where uses incompatible to agriculture should be precluded and where the development of urban-type uses would be detrimental to the continuance of agriculture and the maintenance of open space which are economic and aesthetic attributes and assets of the county.⁷²

Agriculture and one single-family residence are allowed within an AP District, and do not require a Use Permit.

Napa County Erosion Control Plans

ECPs are required for all agricultural developments which involve an earthmoving activity, grading, improvement, or construction of a structure on sites of five percent slope or greater. Napa County Planning, Building and Environmental Services administers the ordinance and grants approvals. The Napa County Resource Conservation District reviews all ECPs for agriculture on slopes greater than five percent, and passes on its recommendations to Napa County Planning, Building and Environmental Services.⁷³

Findings

Question A

The project site is located in a rural area of Napa County. Development of the proposed project would not result in physical barriers that would divide an established community. No impact would occur.

Question B

The proposed project is consistent with the General Plan and zoning designations for the property. The Applicant shall obtain Napa County ECP approval and a grading permit prior to development of the proposed project. Relevant terms are listed in the Geology and Soils section above.

Question C

No Habitat Conservation Plan or Natural Community Conservation Plan currently exists for the project site. Thus, the proposed project would not conflict with any existing Habitat Conservation Plan or Natural Community Conservation Plan and no impact would occur.

Summary

The proposed project would not result in significant impacts to land use and planning.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. Mineral Resources. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental and Regulatory Setting

The Napa County General Plan provides conservation policies to identify and protect mineral deposit lands within the County. These conservation measures include ensuring the long-term production of Aggregate Resource Areas identified by the State of California, assisting in the management of land use which affects areas of statewide and regional significance, and emphasizing the conservation and development of identified mineral deposits.⁷⁴

According to the Napa County Baseline Data Report, no mineral resources of significance to the County, region, or State exist within the project site.⁷⁵ However, USGS has mapped one quarry approximately half a mile northwest of the project site.⁷⁶ This quarry, entitled Napa Valley Stone, is currently producing crushed and broken stone.⁷⁷

Findings

Questions A and B

One mineral quarry is located near the project site. However, the project would not impact it. No impact would occur.

Summary

No impacts would occur to mineral resources as a result of the proposed project.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. Hazards and Hazardous Materials. Would the project:				
a) 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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 a public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project site has historically been used for agricultural purposes. A database search was conducted for records of known sites of hazardous materials generation, storage, or contamination, as well as known storage tank sites on or near the project site.⁷⁸ The State Water Board's GeoTracker database was searched for sites and listings up to a one-mile radius from a point roughly equivalent to the center of the project site.⁷⁹ The GeoTracker database reports information for sites that impact groundwater, particularly those that require groundwater cleanup such as Leaking Underground Storage Tank (LUST) Cleanup Sites; spills, leaks, above ground tanks and other discharges; land disposal sites; and active and/or closed military bases. The database search resulted in zero sites within a one-mile radius of the project site. The project site was not listed on any database as having previous and/or current generation, storage, and/or use of hazardous materials. Additionally, within the one-mile search radius no sites were identified that had current and/or historic hazardous materials. The project site is not listed pursuant to Government Code §65962.5.

Findings

Questions A and B

Hazardous materials that would be used during the construction and operation of the proposed project would be limited to common petroleum and agricultural products. When properly used, these products do not present a significant hazard. This is considered a less than significant impact.

Question C

The proposed project is not located within a quarter mile of any existing or proposed schools. The project site is approximately three miles from the nearest school, and the proposed project would not present a safety hazard to the school. No impact would occur.

Question D

A search of government environmental records did not reveal any known hazardous materials sites within the project site. No impact would occur.

Questions E and F

The project site is located approximately six miles from the nearest airport, and the proposed project would not present a safety hazard to persons working in the area. No impact would occur.

Question G

The proposed project does not include components that would interfere with an adopted emergency plan. Implementation of the proposed project would not impact emergency response or evacuation routes to the project site.

Question H

Fire hazard severity has been mapped by the California Department of Forestry and Fire Protection (CDF). The proposed project is located in a moderate fire hazard zone.⁸⁰ This zone contains fuels (e.g., grasses, shrubs, trees, vines) that are susceptible to wildland fire. The risk of wildland fire for the proposed project (such as from sparks from construction equipment) is similar to that for other rural construction sites located in wood and grasslands and will be minimized by clearing construction areas of combustible material and ensuring spark arresters are in good working order during project construction. Therefore, potential impacts are considered less than significant.

Summary

Impacts to hazards and hazardous materials as a result of the proposed project are considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. Population and Housing. Would the project:				
a) Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site is located in a rural area of Napa County. The Napa County General Plan does not identify acceptable areas for large-scale residential development in the vicinity of the project site. The City of St. Helena, located approximately three miles southeast of the project site, is the closest location for large-scale residential development identified in the Napa County General Plan.⁸¹

Findings

Question A

The proposed project would not directly or indirectly induce substantial growth in the area. The proposed project would not displace people or housing. No impacts would occur.

Questions B and C

The proposed project would not displace people or housing. No impact would occur.

Summary

The proposed project would not result in significant impacts to population and housing.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. Transportation and Circulation. Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (<i>i.e.</i> , result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially increase hazards due to a design feature (<i>e.g.</i> , sharp curves or dangerous intersections) or incompatible uses (<i>e.g.</i> , farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies supporting alternative transportation (<i>e.g.</i> , bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Vehicular access to the project site is through access roads located on the east side of the property, off State Route 128/Conn Creek Road in northern Napa County. State Route 128/Conn Creek Road Canyon Road intersects with Silverado Trail South at the northeastern portion of the property. Both State Route 128/Conn Creek Road and Silverado Trail South are two lane roads. Approximately two miles southwest of the project site, State Route 128/Conn Creek Road intersect with State Route 29/St. Helena Highway.

Findings

Questions A-G

A negligible increase in traffic is anticipated from the construction and implementation of the proposed project. A temporary increase in traffic would occur by construction crews and transportation of materials to and from the construction area. Operation and maintenance of the proposed project would also generate seasonal vehicle trips by staff; the most labor-intensive periods for vineyard are during the spring and harvest seasons from about April through June and August through October, respectively. However, construction and harvest activities would take place during off-peak traffic hours and any increase in traffic that they generate would be slight and would not represent a significant impact to transportation or circulation.

The project would not substantially increase hazards due to a design feature and the project site has historically operated as a vineyard so project approval would not introduce new, incompatible uses. No substantial new impediments to emergency access are anticipated. The proposed project is not expected to result in inadequate parking capacity, or conflict with adopted alternative transportation policies, plans, or programs. The project would not result in a change in air traffic patterns. Potential impacts are considered less than significant.

Summary

Impacts to transportation and circulation as a result of the proposed project are considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. Public Services. Would the project result in substantial adverse physical impacts associated with the provision of 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) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Public services include fire and police protection, schools, parks, and other public facilities. The project site is located within unincorporated Napa County and law enforcement services for this area are provided by the Napa County Sheriff’s Department. Fire protection services are provided by the Napa County Fire Department and CDF. St. Helena Unified School District provides K-12 grade public education to the area.

Findings

Questions A-E

The proposed project would result in the continued use of the project site for agricultural purposes and would not generate substantial additional demand for government facilities or services.

Summary

The proposed project would not impact public services. Accordingly, there is no impact.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. Utilities and Service Systems. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that 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"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with Federal, State, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project would not be served by public water or wastewater systems. The closest landfill is the Clover Flat Landfill located on Silverado Trail near Calistoga in Napa County, approximately nine miles northwest of the project site.

Findings

Questions A-G

No new wastewater generation would result as part of the proposed project. The project site is not connected to wastewater or storm water facilities. The proposed project, if approved, would result in the approval of additional surface water rights to support an existing agricultural operation. An analysis of surface water supply is discussed in the Hydrology and Water Quality section above. Additional water supplies, such as connection to public water supply, would not be required. The proposed project would not generate substantial solid waste and would not conflict with government regulations concerning the generation, handling or disposal of solid waste. No impacts would occur.

Summary

The proposed project would not impact utilities and service systems.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
15. Aesthetics. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site and surrounding area contain scenic resources characteristic of Napa County in general, including mountainous landscapes, agricultural and pastoral settings, and riparian areas. The proposed agricultural use of the project site is consistent with the rural aesthetic quality of the region.

Findings

Questions A-D

The proposed project would result in the continued agricultural use of the project site. This use is consistent with the rural aesthetic quality of the region. The project site would not have a substantial adverse effect on a scenic vista and would not substantially damage scenic resources within a State scenic highway (the project site is not located within a State scenic highway). The proposed project would not substantially degrade the existing visual character of the site or introduce a new source of substantial light or glare. Impacts are considered to be less than significant.

Summary

Impacts to aesthetics as a result of the proposed project are considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) 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"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Regulatory Framework

Under CEQA, historical resources are considered part of the environment (Public Resources Code, §§ 21060.5, 21084.1). A “historical resource’ includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (Public Resources Code, §§ 21084.1, 5020.1, subd. (j)).”

In 1992, the Public Resources Code was amended as it affects historical resources. The amendments included creation of the California Register of Historic Resources (California Register) (Public Resources Code, § 5024.1). The State Historical Resources Commission administers the California Register and adopted implementing regulations effective January 1, 1998 (Cal. Code Regs., tit. 14, § 4850 et seq.). The California Register includes historical resources that are listed automatically by virtue of their appearance on, or eligibility for, certain other lists of important resources. The California Register incorporates historical resources that have been nominated by application and listed after public hearing. Also included are historical resources listed as a result of the State Historical Resources Commission’s evaluation in accordance with specific criteria and procedures.

CEQA requires consideration of potential impacts to resources that are listed or qualify for listing on the California Register, as well as resources that are significant but may not qualify for listing. CEQA also provides protection for unique paleontological resources and unique geologic features, and requires that planners consider impacts to such resources in the project review process. CEQA distinguishes between ubiquitous fossils that are of little scientific consequence, and those, which are of some importance by providing protection for the latter. While CEQA does not precisely define unique paleontological resources, criteria established by the Society of Vertebrate Paleontology (SVP) provide guidance. The SVP defines a significant paleontological resource as one that meets one or more of the following criteria:

- Provides important information shedding light on evolutionary trends and/or helping to relate living organisms to extinct organisms;
- Provides important information regarding the development of biological communities;
- Demonstrates unusual circumstances in the history of life;

- Represents a rare taxon or a rare or unique occurrence, is in short supply and in danger of being destroyed or depleted;
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
- Provides important information used to correlate strata for which it may be difficult to obtain other types of age dates.

For the purpose of this analysis, a unique geologic feature is a resource or formation that:

- Is the best example locally or regionally;
- Embodies distinct characteristics of a geologic principal that is exclusive locally or regionally;
- Provides a key piece of geologic information important in geology or geologic history;
- Is a type locality of a geologic feature; or
- Contains a mineral not known to occur elsewhere locally or regionally; or is a common teaching tool.

Cultural Resources Study

A cultural resources study for the project site was conducted in August 2004 by Tom Origer & Associates.⁸² The cultural resources study characterized past uses of the project site, summarized the results of a field survey and archival records search, and provided resource treatment recommendations. An updated consultation letter was sent to the Native American Heritage Commission on June 8, 2012 requesting a check of the Sacred Lands files for the project site. A reply was received on June 27, 2012 indicating that no Native American cultural resources were known to be present in the immediate area of the project. Consultation letters were sent on July 2, 2012 to the Native American contacts provided by the Native American Heritage Commission in the June 27, 2012 letter. No replies were received.

A review of ethnographic literature and maps, including archival research at the Northwest Information Center, Sonoma State University, found that there is one known prehistoric archeological site on the project site and 14 others within a one-mile radius. Review of historical maps and literature found no buildings, structures, or other historical features within the project site prior to 1902. The 1902 USGS maps show two buildings within the project site, one of which appears to be existing. Subsequent USGS maps show the same buildings; however the 1942 Army Corps map shows the building complex as it is currently configured, as well as an additional house south of the existing 1902 building.

Previous archaeological surveys in the project vicinity demonstrated a relatively high sensitivity for cultural resources. During the field survey, an intensive reconnaissance was conducted within the POU. The previously recorded archeological site (CA-NAP-371) was found and re-documented during the survey. The site consists of a midden deposit with fire-affected rock, groundstone items, and obsidian tools and tool-making debris. In addition to the known site, a diffuse scatter of prehistoric cultural materials was observed throughout the project site. However, these items were too widely spaced to constitute an archeological site. A few

fragments of glass and ceramic items dating to the 19th century were also noted. The historic-period materials were widely spaced, around and near the Usibelli house and barn, and outside the POU. No historic buildings or structures occur within the POU.

Paleontological Resources

Surficial geology units of the project site are mapped as Huichica Formation which is Pliocene in age; fan deposits which are Pleistocene in age; and alluvium deposits which are Holocene in age.⁸³ A records search of the University of California's Museum of Paleontology's (UCMP's) database was conducted for paleontological resources. According to the UCMP's online database, although 101 specimen localities have been recorded within Napa County, there are no records of any vertebrate or invertebrate fossils within the project site.⁸⁴ Additionally, the UCMP's database shows no localities or fossil discoveries contained in the formations which can be found within the project site. However, the UCMP database does contain records of vertebrate fossils found within Pliocene aged rocks within Napa County. Because the project site contains Huichica Formation rocks which are Pliocene in age and are compositionally similar to those formations within Napa County that do contain vertebrate fossils, there is a potential for vertebrate fossil discovery within the project site.

No paleontological resources or unique geologic features were documented during the cultural resources field survey.

Findings

Questions A-D

One cultural resource site was re-documented near the project site during the field survey. The site is located outside of the POU and other project components. Other cultural resources were too scattered to identify into a single site.

To ensure no impact to cultural resources, the following term will be included in any water right permit or license issued pursuant Application 31279:

- *The archeological site identified as CA-NPA-371 in the 2004 report entitled "A Cultural Resources Survey for the Usibelli Trust Water Right Application Near St. Helena, Napa County, California" shall be avoided by all ground-disturbing activities that are beyond the historic layer of disturbance (i.e., the plow or disc zone). Routine vineyard maintenance shall be limited to the existing disc zone (~25cm below surface), and not include deep ground disturbance such as ripping, as recommended by the previous site investigator. If vines are to be removed for replanting or changing to another crop, then techniques for removal of vines in areas of the sites shall be restricted to using mechanical non-invasive techniques (i.e., pulling the vines with a chain attached to a backhoe, rather than excavation of vines). Vines shall be pulled when the soils are not muddy, but while the soil is moist down to six inches, and vines shall be replanted in the same location as the vines which were removed to avoid excessive disturbance that can be caused using heavy equipment. If future project-related activities or development at the location is unavoidable, then an archaeologist who has been approved by the California Historical Information System to work in the area and who is acceptable to the Deputy Director for Water Rights is retained and the significance of the site is determined. If mitigation is determined to be necessary, then the archaeologist shall design an appropriate mitigation plan and submit the plan for approval by the Deputy*

Director for Water Rights. After the plan has been approved, the mitigation must be completed to the satisfaction of the Deputy Director for Water Rights prior to activities in the area of the site. Right holder shall be responsible for all costs associated with the cultural resource related work.

There is the possibility that subsurface archaeological deposits may exist in the project site, as archaeological sites may be buried with no surface manifestation. As such, the following term will be included in any water right permit or license issued pursuant to Application 31279:

- *Should any buried archaeological materials be uncovered during project activities, such activities shall cease within 100 feet of the find. Prehistoric archaeological indicators include: obsidian and chert flakes and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding slabs, mortars and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone and fire affected stones. 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, privy pits, wells and dumps; and old trails. The Deputy Director for Water Rights shall be notified of the discovery and a professional archaeologist shall be retained by the right holder to evaluate the find and recommend appropriate mitigation measures. Proposed mitigation measures shall be submitted to the Deputy Director for Water Rights for approval. Project-related activities shall not resume within 100 feet of the find until all approved mitigation measures have been completed to the satisfaction of the Deputy Director for Water Rights.*

There is also the possibility that an unanticipated discovery of human remains could occur. The following term will be included in any permit or license issued pursuant to Application 31279:

- *If human remains are encountered, the right holder shall comply with Section 15064.5 (e) (1) of the California Environmental Quality Act Guidelines and the Health and Safety Code Section 7050.5. All project-related ground disturbances within 100 feet of the find shall be halted until the Napa County Coroner has been notified. If the Coroner determines that the remains are Native American, the Coroner will notify the Native American Heritage Commission to identify the most-likely descendants of the deceased Native Americans. Project-related ground disturbance, in the vicinity of the find, shall not resume until the process detailed under Section 15064.5 (e) has been completed and evidence of completion has been submitted to the Deputy Director for Water Rights.*

There is the possibility that unanticipated discovery of paleontological resources could occur. The following term will be included in any permit or license issued pursuant to Application 31279:

- *If vertebrate fossils are discovered during project activities, all work shall cease within 100 feet of the find until a qualified professional paleontologist as defined by the Society of Vertebrate Paleontology's Conformable Impact Mitigation Guidelines Committee (2011) can assess the nature and importance of the find and recommend appropriate treatment. The Deputy Director for Water Rights will also be notified of the discovery and the qualified professional paleontologist's opinion within 48 hours of the initial finding. Treatment may include preparation and recovery of fossil materials, so that they can be housed in an appropriate museum or university collection, and also may include preparation of a report for publication describing the finds. Project activities shall not*

resume until after the qualified professional paleontologist has given clearance and evidence of such clearance has been submitted to the Deputy Director for Water Rights.

Summary

The proposed project could result in potentially significant impacts to cultural resources. However, with implementation of the identified mitigation measures, potential impacts would be considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. Recreation. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Recreational areas in Napa County include forests, wild land areas, lakes, and creeks which offer such recreational opportunities as hiking, picnicking, hunting, boating, fishing, and swimming. Lake Berryessa and Lake Hennessey, and numerous State Parks located near Napa Valley provide abundant recreational facilities in the area.

Findings

Question A

The proposed project would not 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. No impact would occur.

Question B

The proposed project does not include recreation facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. No impact would occur.

Summary

The proposed project would not result in significant impacts to recreation.

17. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Questions A-C

As discussed in the preceding sections, the proposed project has a potential to degrade the quality of the environment by adversely impacting geology and soils, air quality, hydrology and water quality, biological resources, land use and planning, and cultural resources. However, with implementation of the identified terms, potential impacts would be reduced to a less than significant level. Potential adverse environmental impacts in combination with the impacts of other past, present, and future projects, could contribute to cumulatively significant effects on the environment. However, with implementation of the identified terms, the proposed project would avoid or minimize potential impacts and would not result in cumulatively considerable environmental impacts. No potentially significant adverse effects to humans have been identified.

III. 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 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.

Prepared By:

ORIGINAL SIGNED BY David Zweig FEB 4 2013
David Zweig Date
Analytical Environmental Services

Reviewed By:

ORIGINAL SIGNED BY Sam Boland FEB 14 2013
Sam Boland Date
Engineer, Napa River Watershed Unit

ORIGINAL SIGNED BY Amanda Montgomery FEB 15 2013
Amanda Montgomery Date
Senior, Napa River Watershed Unit

(Form updated 3/28/00)

Authority: Public Resources Code Sections 21083, 21084, 21084.1, and 21087.

Reference: Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.1 through 21083.3, 21083.6 through 21083.9, 21084.1, 21093, 21094, 21151; *Sundstrom v. County of Mendocino*, 202 Cal. App. 3d 296 (1988); *Leonoff v. Monterey Board of Supervisors*, 222 Cal. App. 3d 1337 (1990).

IV. INFORMATION SOURCES

- ¹ Application to Appropriate Water by Permit, Application 31279. State Water Resources Control Board, Division of Water Rights. January 22, 2002.
- ² Application 31279 of Usibelli, Conn Creek, Napa County. Letter from Nicholas F. Bonsignore, Wagner & Bonsignore Consulting Civil Engineers, to Darren Tran, State Water Resources Control Board. November 19, 2010.
- ³ Ibid.
- ⁴ Notice of Application to Appropriate Water by Permit. Application 31279. State Water Resources Control Board, Division of Water Rights. May 10, 2002.
- ⁵ Ibid.
- ⁶ Project Operational Information Provided to Analytical Environmental Services by Wagner & Bonsignore Consulting Engineers. November 5, 2012.
- ⁷ U.S. Department of Agriculture (USDA), Soil Conservation Service in Cooperation with the University of California, Agricultural Experiment Station. Soil Survey of Napa County, California. Issued August 1978.
- ⁸ Western Regional Climate Center. Climatological Summary. Station: Saint Helena, CA. Period of Record: October 1907 to December 2011. Available online at: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7643>.
- ⁹ Ibid.
- ¹⁰ Analysis of Water Available to Application 31279 of Usibelli. Prepared by Wagner & Bonsignore Consulting Engineers. Sacramento, CA. March 19, 2007.
- ¹¹ Project Operational Information Provided to Analytical Environmental Services by Wagner & Bonsignore Consulting Engineers. November 5, 2012.
- ¹² Soil Survey of Napa County, California. Prepared by U.S. Department of Agriculture, Soil Conservation Service in cooperation with the University of California, Agricultural Experiment Station. Issued August 1978. Available online at: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
- ¹³ Soil Survey Staff, Natural Resources Conservation Service. United States Department of Agriculture. Web Soil Survey. Available online at: <http://Websoilsurvey.nrcs.usda.gov/>.
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- ¹⁵ Ibid.
- ¹⁶ Napa County General Plan. June 2008. Available online at: <http://www.countyofnapa.org/pages/departementcontent.aspx?id=4294971554>

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- ¹⁸ Ibid.
- ¹⁹ Watershed Information Center & Conservancy of Napa County, 2005. Napa County Baseline Data Report - Map 1.10 Liquefaction Susceptibility. November 2005. Available online at: http://www.napawatersheds.org/files/managed/Document/3098/Map_1-10.pdf
- ²⁰ Ibid.
- ²¹ Soil Survey Staff, Natural Resources Conservation Service. United States Department of Agriculture. Web Soil Survey. Available online at: <http://Websoilsurvey.nrcs.usda.gov/>.
- ²² Napa County Zoning Ordinance. Napa County. 2007. Available online at: <http://www.countyofnapa.org/Pages/Department.aspx?id=4294967490>
- ²³ State and National Area Designation Maps of California. California Air Resources Board. 2011. Available online at: <http://www.arb.ca.gov/desig/adm/adm.htm>.
- ²⁴ Ambient Air Quality Standards. California Air Resources Board. Available online at: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.
- ²⁵ Bay Area Air Quality Management District. CEQA Air Quality Guidelines. Updated May 2011. Available online at: http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines%20May%202011.ashx?la=enAAQMD%20CEQA%20Guidelines_Dec%207%202009.ashx.
- ²⁶ Ibid.
- ²⁷ Ibid.
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