

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: Flowers Vineyard and Winery Water Right Project  
Application to Appropriate Water

APPLICATION: 31373

APPLICANT: Walter and Joan Flowers  
Flowers Vineyard and Winery  
28500 Seaview Road  
Cazadero, CA 95421

APPLICANT'S CONTACT PERSON:

Drew L. Aspegren  
Napa Valley Vineyard Engineering  
176 Main Street, Suite B  
St. Helena, CA 94574  
(707) 963-4927

GENERAL PLAN DESIGNATION: Resources and Rural Development

ZONING: Resources & Rural Development (Agricultural Preserve) District  
Timberland Production District

### Introduction

Flowers Vineyard and Winery is located in the town of Cazadero, approximately eight miles northwest of the town of Jenner, in Sonoma County, California, as shown in **Figure 1**. The project site consists of approximately 36 acres located within the "Fort Ross, California" U.S. Geological Survey (USGS) 7.5 minute topographic quadrangle at Township 8N, Range 12W, Section 7, Mt. Diablo Base and Meridian, as shown in **Figure 2**. Water Right Application 31373 (proposed project) was filed on July 25, 2002 and accepted on September 11, 2002 with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division) for the diversion of 13 acre-feet per annum (afa) of water to storage from the South Fork Gualala River tributary to the Gualala River.



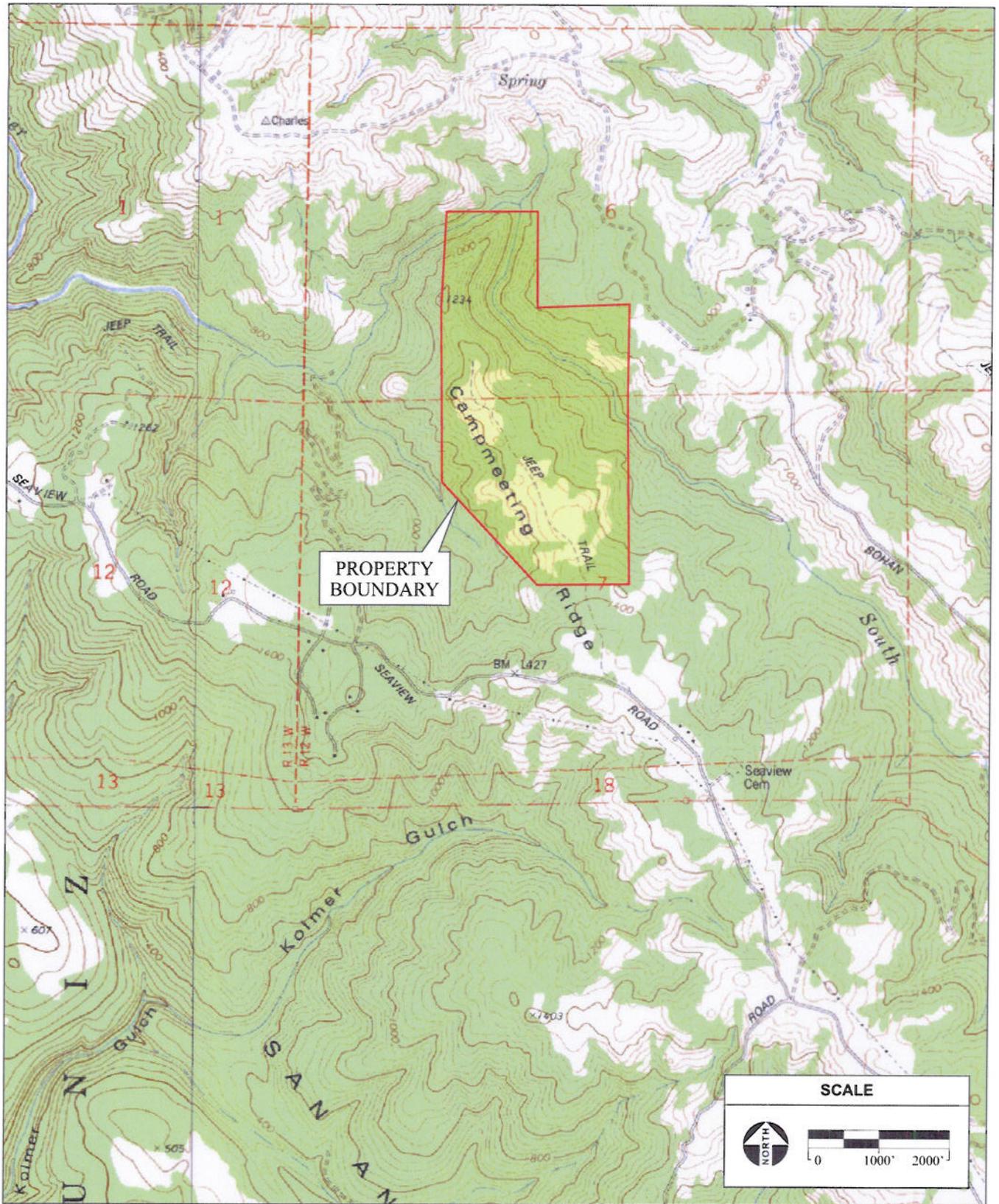


SOURCE: Microsoft Street & Trips, 2004; AES, 2008

Flowers Vineyards Water Rights ISMND ■

**Figure 1**  
Regional Location





SOURCE: "Fort Ross, CA" USGS 7.5 Minute Topographic Quadrangle  
 Unsectioned Area of Campmeeting Ridge, T8N R12W,  
 Mt. Diablo Baseline & Meridian; AES 2008

Flowers Vineyards Water Rights ISMND ■

**Figure 2**  
 Site Vicinity



## Project Description

Application 31373 proposes the diversion of 13 afa of water to storage, at a rate not to exceed 2.0 cubic feet per second (cfs), from December 15 of each year to March 31 of the succeeding year. A copy of Water Rights Application 31373 is on file with the Division. A summary is outlined in **Table 1** and illustrated in **Figure 3**. Water would be diverted via an existing offset well from the South Fork Gualala River tributary to the Gualala River thence the Pacific Ocean into two existing offstream reservoirs. Stored water would be used for irrigation and frost protection of approximately 35 acres of vineyard, irrigation of one acre of landscape, domestic uses, including dust control, at onsite residences and the winery buildings (**Table 2**), and incidental fire protection at the winery buildings. An 8-af regulatory capacity reservoir and the Point of Diversion (POD) existed on the project site at the time of filing under a riparian claim (S014299). The project would involve changing the existing 8-af regulatory reservoir into a storage reservoir, the review of potential impacts resulting from construction and operation of an existing unauthorized 5-af storage capacity reservoir, and the review of potential impacts resulting from installation and operation of approximately 2,300 linear feet of four inch diameter pipeline to connect the proposed 5-af reservoir with the existing pipeline between the POD to the 8-af reservoir. At this time, all components of the project exist. The baseline used to analyze impacts of project development is described in the Project Background section below.

**TABLE 1 – SUMMARY OF APPLICATION 31373<sup>1</sup>**

Application	Diversion	Diversion Amount (acre-feet)	Diversion Season	Proposed Place of Use (acres)	Purpose of Use
31373	To Storage	13	December 15 to March 31	36	Irrigation, Frost Protection, Domestic, and Fire Protection

**TABLE 2 – PROPOSED PLACE OF USE<sup>2</sup>**

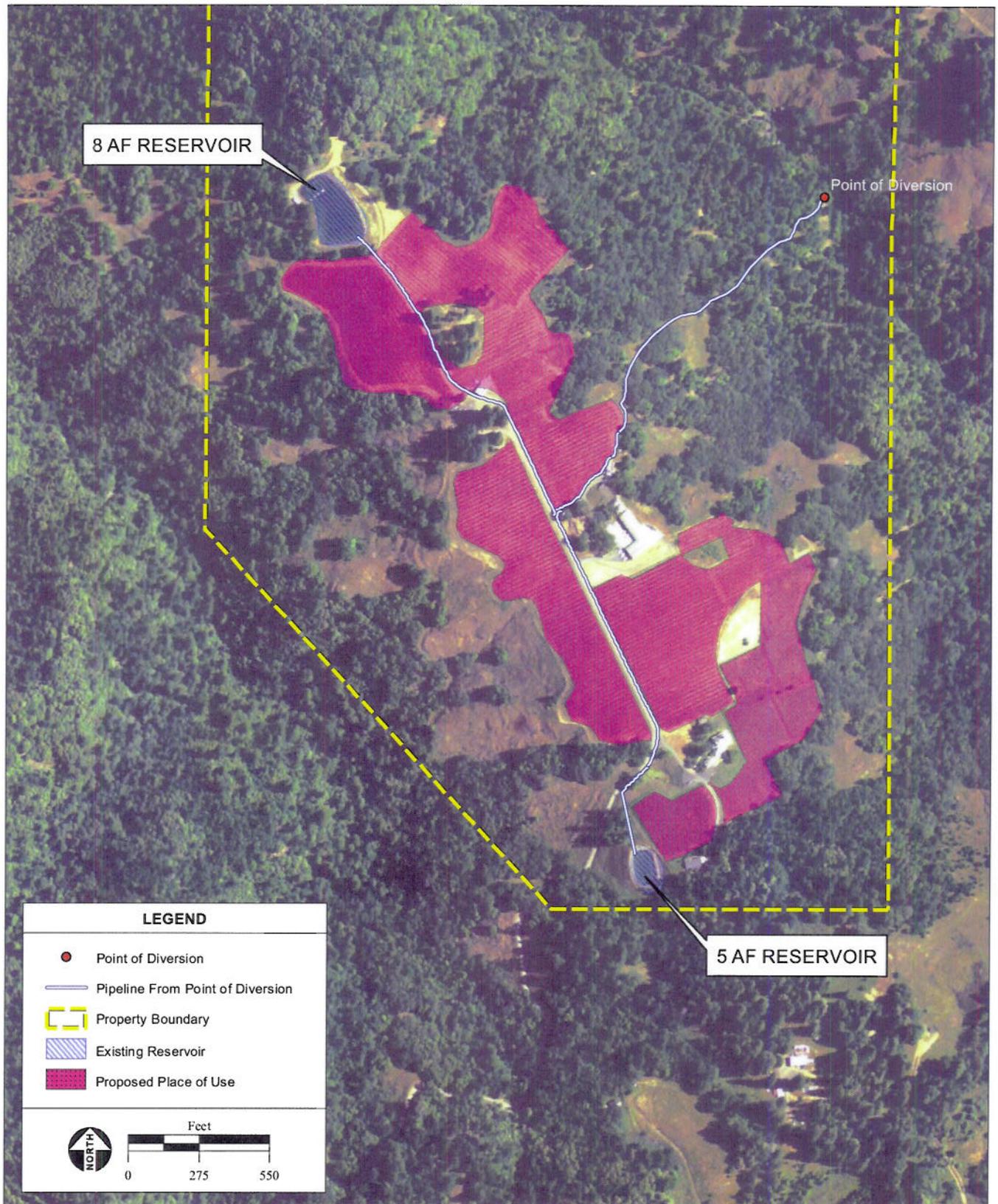
Use Within	Section	Township	Range	B & M	Acres	Cultivated
NE ¼ of NW ¼	7	8N	12W	MD	18	Yes
SE ¼ of NW ¼	7	8N	12W	MD	18	Yes

**Total: 36**

## Project Background

At the time the application for the proposed project was accepted on September 11, 2002, the project site consisted of three residences, a winery, and vineyard on the top of a ridge that runs in a north-south direction. Prior to the application acceptance date, approximately 35 acres of the project site were planted in vineyard and approximately one acre of the site was developed with landscaping and residences. The California Environmental Quality Act (CEQA) baseline date was set for September 11, 2002, the date on which the Application 31373 was accepted and the date on which environmental review arguably commenced. The 8-af reservoir and 3 and 4-inch diameter pipeline connecting to the POD existed. Project components not developed at the environmental baseline date included the unauthorized 5-af storage reservoir and roughly 2,300 feet of 4-inch diameter pipeline necessary to connect the 5-af reservoir to the existing pipeline. The Applicant does not have any future plans to upgrade to a larger diameter pipeline. The unauthorized 5-af reservoir is located within mixed oak forest and grassland vegetation communities. This reservoir was constructed after initiation of the environmental review. The pipeline connecting the 5-af reservoir to the existing facilities was also constructed





SOURCE: Google Earth Aerial Photograph, June 14, 2005; AES 2008

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**Figure 3**  
Project Components



after the start of the environmental review. The pipeline is within the right-of-way of the existing unpaved road. The project components including the place of use (POU), POD, storage reservoirs, pipeline, and residences are depicted in **Figure 3**. The area surrounding the project site is dominated by mixed oak forest with areas of grassland.

A public notice was issued for the proposed project on April 4, 2003. On May 13, 2003, the California Department of Fish and Game (DFG) Central Coast Region submitted a protest against Application 31373, contending that the proposed project may result in reduced stream flow during critical periods that could diminish aquatic and riparian resources. The National Marine Fisheries Service (NMFS) submitted a similar protest letter on May 8, 2003. NMFS indicated that the Gualala River supports sustaining populations of the Central California Coast Evolutionary Significant Units (ESUs) of steelhead, California Coastal ESU Chinook salmon, and Central California Coast ESU of coho salmon. On May 14, 2003, a third protest was filed by Susan and John Garber. The Garbers were similarly concerned that the proposed project could potentially impact the migration of steelhead during February and March. All three protest letters were accepted by the Division on May 29, 2003. These protests are currently pending.

On October 6, 2008, the Applicant filed a Petition for Change to correct a discrepancy with the description of the POU set forth in Application 31373 and the April 4, 2003 notice. It was discovered, based on more accurate mapping resources, that the distribution of the 36 acre POU within each  $\frac{1}{4}$  -  $\frac{1}{4}$  section was inaccurately described in both Application 31373 and the April 4, 2003 notice. The application was subsequently amended to encompass a revised, more accurate POU distribution consisting of 18 acres within the NE  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  and 18 acres within the SE  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of section 7.

On August 25, 2009 incidental fire protection was included as a purpose of use under Application 31373 pursuant to California Code of Regulations section 798. The Applicant currently stores groundwater and rainwater in the 5 af reservoir. A portion of this water is reserved in a storage tank for fire protection. Including fire protection as an incidental use would allow appropriated water to be used for fire protection if necessary.

### **Environmental Setting**

The project site is located in the Sonoma Coast/Gualala Basin Planning Area in northwestern Sonoma County (County), approximately 1.5 miles north of the intersection between Seaview and Fort Ross roads. This area is located in the California Coast Range geomorphic province, which is considered a seismically active region. Elevations at the project site range from 774 feet above mean sea level (amsl) along the South Fork Gualala River, rising to 1394 amsl at the top of a ridge on the southern border of the subject property.

The climate in the Gualala River watershed area is relatively mild, a result of being moderated by the Pacific Ocean. Temperatures range from an average of 50 degrees Fahrenheit in the winter to 57 degrees Fahrenheit in the summer. The rainy season starts in November and runs through March, with an average precipitation of 61.79 inches per year<sup>3</sup>.

## Regulatory Environment

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

- U.S. Fish and Wildlife Service (USFWS) – Federal Endangered Species Act (ESA) Compliance
- NMFS – Federal ESA Compliance
- DFG – California Endangered Species Act (CESA) Compliance and Lake and Streambed Alteration Agreement
- North Coast Regional Water Quality Control Board – Section 401 Water Quality Certification
- U.S. Army Corps of Engineers (USACE) – Section 404 Permit

## II. ENVIRONMENTAL IMPACTS

The proposed project could potentially affect the environmental factors checked below. Refer to the checklists located in the following pages for more details.

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

### 1. Geology and Soils. Would the project:

- |  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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 & 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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input type="checkbox"/>            | <input checked="" 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 type="checkbox"/>            | <input checked="" 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"/> |

Sonoma County is located 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.

According to the Sonoma County Soil Survey, soil in the project area includes Mendocino sandy clay loam (MmE) with 9- to 30-percent slopes; Yorkville clay loam (YuF) with 30- to 50-percent slopes; Hugo-Josephine complex (HnG) with 50- to 75-percent slopes; Hugo-Atwell complex (HIF) with 30- to 50-percent slopes, and Hugo very gravelly loam (HkG) with 50- to 75-percent slopes<sup>4</sup>. MmE soils are characteristically well-drained clay, with moderately high erosion potential. YuF soils are moderately well-drained clays with a very low to moderately low erosion potential, whereas the HnG and HIF complexes are typically well-drained clay loam with moderately high erosion potential. The HkG loam is characteristically well-drained, gravelly clay with moderately high erosion potential.

Faults in Sonoma County are part of the San Andreas Fault system, which extends along the California coast. Potentially active fault zones are located approximately two miles to the west of the project site, which is an area designated as a Alquist-Priolo Special Studies Zone. According to the California Geological Survey's (CGS) Index of Earthquake Fault Zone Maps, the site is located in the Fort Ross #74 Fault-Rupture Hazard Zone, as identified under the Alquist-Priolo Earthquake Fault Zoning Act<sup>5</sup>. The last major earthquake in the County was the 5.7 magnitude event on the Healdsburg fault in Santa Rosa in 1969. Analysis of seismic data indicates that 7.5 and 8.5 magnitude earthquakes can be expected for the Healdsburg-Rodgers Creek and San Andreas faults, respectively. Earthquakes of 8.0 or more on the San Andreas Fault can be expected every 50 to 200 years<sup>6</sup>.

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. According to the County's General Plan, the project site is located in an area that is not subject to high to moderate potential for liquefaction, but is in an area with high to moderate potential for landslides<sup>7</sup>. Landslides can result from ground shaking and may occur in areas of gentle slopes due to liquefaction of subsurface materials. The County General Plan also identifies that the project site is not located in an area subject to flooding or inundation to tsunamis<sup>8</sup>.

### *Question A*

The project involves the diversion of 13 afa of water to an 8-af offshore reservoir and a 5-af offshore reservoir for storage. At the time water right Application 31373 was filed, existing features included approximately 36-acres of POU (35 acres of vineyard and one acre of residential area), the 8-af reservoir, and pipeline infrastructure (3 and 4-inch diameter) between the existing reservoir and POD. Installation of the 5-af offshore reservoir and the 4-inch diameter pipeline connection to the existing pipeline between the POD and 8-af reservoir were completed after the filing of the application. No additional construction will occur as a result of project approval. Although the project site lies approximately two miles east of an Alquist-Priolo Special Studies Zone, the proposed project and project site do not include features that would place people or structures at risk. Impacts from geologic hazards such as landslides or ground failures are expected to be less than significant.

### *Questions B-E*

No further construction activities associated with this project will occur at the project site if the application is approved. During operation of the project, water would be transported using pumps and pipelines to irrigate a total of 35 acres of existing vineyards (**Figure 3**). No significant alteration of drainage features appears to have occurred during the previous phases of development for this project. The reservoir, pipelines, and POU were developed in relatively flat areas of the vineyard property. Project components constructed after the baseline date included the 5-af reservoir and associated pipeline (4-inch diameter) to connect to the existing infrastructure at the northern end of the POU. The reservoir was constructed on mixed oak forest and grassland vegetation areas and the pipeline was constructed within the road. Field observations did not show any signs of erosion and agricultural uses tend to maximize water use by preventing runoff. Development of project components is likely to have resulted in some erosion; however, due to the previous conversion to vineyard and related facilities from grazing land, erosion is not expected to have been substantial and is therefore considered as a less than significant impact.

The pipeline from the 5-af reservoir was constructed in the roadway of an existing unpaved road and would have been excavated and backfilled to prevent erosion to the roadway. The 5-af reservoir was designed to capture surface runoff and irrigation of vineyards is typically monitored to maximize use of water by minimizing runoff. There is no indication that development of these projects has resulted in significant soil erosion or loss of topsoil. The project does not include features that would place people or structures at risk to expansive soils. The proposed project does not include septic tanks or wastewater disposal systems. With regards to soil erosion, lateral spreading, landslides, expansive soils, and wastewater disposal options, no impacts would occur as a result of the proposed project.

### *Findings*

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

**2. Air Quality and Greenhouse Gas Emissions.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<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) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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 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"/>
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) 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"/>

The project is located within the San Francisco Bay Area Air Basin, falling under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The climate of the region is Mediterranean in character, with mild, rainy winter weather from November through April, and warm to hot, sub-humid weather from May through October. The San Francisco Bay 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.

### Federal Regulations

The 1977 federal Clean Air Act (CAA) required the 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, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter, and lead. EPA publishes criteria documents to justify the choice of standards. Pursuant to the 1990 Clean Air Act 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. The North Coast Air Basin is designated as either attainment or unclassified for criteria air pollutants<sup>9</sup>.

## State Regulations

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. The North Coast Air Basin is designated as nonattainment/transitional for ozone, nonattainment for PM<sub>10</sub>, and attainment or unclassified for carbon monoxide, nitrogen dioxide, sulfur dioxide and lead<sup>10</sup>. **Table 4** shows state standards for PM<sub>2.5</sub>, PM<sub>10</sub>, and O<sub>3</sub>.

**TABLE 4: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS<sup>11</sup>**

Pollutant	Averaging Time	SAAQS <sup>1</sup>	NAAQS <sup>2</sup>
Ozone (O <sub>3</sub> )	8-hour	0.070 ppm	0.075 ppm
	1 hour	0.09 ppm	-
Particulate Matter (PM <sub>2.5</sub> )	24 hour	-	35 µg/m <sup>3</sup>
	Annual	12 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>
Respirable Particulate Matter (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
	Annual	20 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>

<sup>1</sup> SAAQS (i.e., California standards) for ozone and respirable particulate matter are values that are not to be exceeded.

<sup>2</sup> 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.

ppm = parts per million by volume

µg/m<sup>3</sup> = micrograms per cubic meter of air

## Ozone (O<sub>3</sub>)

O<sub>3</sub> 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<sub>x</sub>] and reactive organic gases [ROG]), O<sub>3</sub> is created. Motor vehicles are a major source of O<sub>3</sub> precursors. O<sub>3</sub> causes eye and respiratory irritation, reduces resistance to lung infection, and may aggravate pulmonary conditions in persons with lung disease.

## Respirable Particulate Matter (PM<sub>10</sub>)

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 PM<sub>10</sub> emissions in Sonoma 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 PM<sub>10</sub>. The amount of particulate matter and PM<sub>10</sub> 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.

### **Greenhouse Gas (GHG) Emissions**

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 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.<sup>12</sup> These BAAQMD CEQA guidelines were adopted on June 2, 2010 and were effective as of the adoption date. However, as stated on the BAAQMD's website, it is the BAAQMD's policy that the adopted thresholds apply to projects for which environmental analysis begins on or after the applicable effective date.<sup>13</sup> As discussed under the Project Background section above, September 11, 2002 is considered the CEQA baseline date and the date that environmental review for the project began; as such, the proposed project is not subject to the thresholds identified in the recently adopted 2010 BAAQMD CEQA Guidelines. A GHG emissions threshold of significance pertinent to tree loss has not been adopted at the state or local level.

#### *Questions A-E*

No further construction activities associated with the project will occur at the project site if the application is approved. Project operations involve diversion and storage of water for the irrigation of existing vineyards and continued residential uses. Development of the 8-af reservoir, 36-acre POU, off-set well and pump house at the POD, and pipe connecting the POD to the 8-af reservoir was completed prior to the time of filing the water right application (baseline condition date). Installation of the 5-af reservoir, and extension of the 4-inch pipeline between the reservoirs was completed since the time that the application was filed. The BAAQMD has guidelines for assessing the air quality impacts of proposed projects<sup>14</sup>. The BAAQMD's approach to assessment of construction-related air quality impacts is to emphasize the implementation of effective and comprehensive control measures for particulate matter emissions rather than provide detailed quantification of emissions<sup>15</sup>. It is assumed that all feasible best management practices, including controls for particulate matter, would have been implemented by the project contractor during construction of the reservoir and pipeline. Construction-related particulate matter emissions are accounted for in the BAAQMD's emission inventory that is the basis for the regional air quality plans; thus, construction-related emissions do not impede attainment of maintenance of ozone or particulate matter standards in the Bay Area. Operation of the proposed project would not result in the generation of additional emissions. The project would therefore not conflict with any applicable air quality plan, expose sensitive receptors to substantial pollutant concentrations, or cumulatively contribute to a non-attainment criteria pollutant. No new substantial emissions or odors would be generated. Air quality impacts associated with the proposed project would be less than significant.

#### *Questions F and G*

No further construction would occur under the proposed project. Operational sources of GHG emissions include vehicle travel, energy use, and water transport; however, as the project site currently and historically has operated as a vineyard, no additional workers or vehicles, which are the primary sources of operational GHG emissions, would be required for operation of the proposed project. Increases in energy use and water transport would be minimal as there is little electricity used onsite and water sources are close in proximity. Previous development of the proposed POU after the baseline date resulted in the loss of approximately 15 trees. No further construction would occur under the proposed project. With implementation of the Tree Mitigation Plan described in *Question A* in the Biological Resources section below, which includes tree planting and preservation on the property, impacts to GHG emissions are

considered less than significant. 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.

### Findings

The proposed project could result in potentially significant impacts to air quality and GHG emissions. However, with implementation of the identified permit terms listed in *Question A* in the Biological Resources section below, potential impacts would be reduced to a less than significant level.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>3. Hydrology and Water Quality. Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 off-site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) provide substantial additional sources of polluted runoff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" 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"/> |

Along northern Sonoma County and southern Mendocino County, the Gualala River watershed drains approximately 298 square miles. The watershed runs approximately 32 miles in a north-south direction, with an average width of 14 miles. Both the North Fork and South Fork Gualala tributaries are included within this watershed. The South Fork Gualala River contains the location of the POD and is located along the northeast portion of the project site (**Figures 2 and 3**). A *Water Availability Analysis (WAA)* report was prepared for Application 31373 by Napa Valley Vineyard Engineering, Inc. The analysis is dated August 23, 2006<sup>16</sup>.

#### Questions A and D

No further construction activities associated with the project would occur. The project is not regulated, nor is it expected to be regulated, under Waste Discharge Requirements. During operation, water would be pumped from the South Fork Gualala River and conveyed through 3 and 4-inch diameter PVC pipes to the 8-af and 5-af offstream reservoirs during the winter period, then pumped from the reservoirs for irrigation and frost protection uses on the existing 35 acres of vineyards, irrigation of approximately one acre of landscaping, and domestic uses at three onsite residences. The existing, unauthorized 5-af reservoir and infrastructure was designed to capture surface runoff to maximize water use. As described in the Geology and Soils section above, significant erosion and runoff from the site was not expected to occur. The South Fork Gualala River is not listed on the State Water Board's 303(d) list for impaired water bodies<sup>17</sup>. As the cumulative reduction caused by this project and all other water development projects is relatively low (**Table 4**), the project would not cause a significant impact to flows of the South Fork Gualala River<sup>18</sup>. Water quality impacts associated with the proposed project would be less than significant.

#### Question B

The proposed project does not involve the use of groundwater supplies. Groundwater recharge on the project site would not be altered since no changes would occur to the existing conditions of runoff, geology, or soils. No impacts to groundwater would occur.

#### Question C

All project components are currently developed and no further construction activities would occur at the project site. The existing conditions of the drainage pattern and runoff at the project site would not be altered by approval of the application. As discussed above, project components developed after the environmental baseline included the 5-af reservoir and the associated 3 and 4-inch pipeline to connect to the existing pipeline between the POD and 8-af reservoir. Surface runoff likely decreased as a result of the development of these components, in particular the construction of the 5-af reservoir. As described in the Geology and Soils section above, significant erosion and runoff from the site is not expected to have occurred as

field observations did not show any signs of erosion; therefore, no significant impacts associated with runoff would occur as a result of the construction and operation of the project.

*Question E*

The project does not involve the development of housing or other structures within the 100-year flood zone. No impacts would occur with respect to flood flows within a 100-year flood hazard area as a result of the project.

*Question F*

The existing offstream reservoirs are pit type reservoirs, with approximate maximum water depths of 15 feet, and would not be subject to a dam or levee failure that could result in flooding. The 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. No impacts would occur as a result of the construction and operation of the project.

*Question G*

A WAA for Application 31373 was prepared for the project by Napa Valley Vineyard Engineering, Inc. in August of 2006<sup>19</sup>. This document is on file with the Division. The Division accepted the analysis on October 4, 2006. The analysis includes Cumulative Flow Impairment Index (CFII) calculations. The purpose of the CFII calculations is to evaluate the cumulative flow impairment from all existing and pending projects in a watershed of interest, presented as a percentage obtained from dividing the water demand by the water supply at a Point of Interest (POI), over a specified time period<sup>20</sup>. Based on the location of the existing POD for Application 31373, five POIs were identified by DFG, as described in **Table 3** below:

**TABLE 3 – POINTS OF INTEREST<sup>21</sup>**

POI	Location
1	The point on the South Fork Gualala River immediately below the POD for Application 31373.
2	The point on the South Fork Gualala River immediately above the confluence with the Wheatfield Fork Gualala River.
3	The point on the South Fork Gualala River immediately below the confluence with the Wheatfield Fork Gualala River.
4	The point on the South Fork Gualala River immediately below the POD for A029466.
5	The point on the South Fork Gualala River immediately above the confluence with the North Fork of the Gualala River.

The following summarizes the results of the WAA, which included Application 31373 as the most junior application within the watershed; therefore, only one demand total was calculated at each POI and at the POD for the project. Specifically, the CFII was calculated by dividing the total face value of water rights of record for the period of October 1 through March 31 (demand) by the estimated seasonal unimpaired flow for the period of December 15 through March 31 (supply). The streamflow (water supply) at each POI was estimated by incorporating a proration of USGS streamflow data derived from a gage already located on the South Fork Gualala River near Annapolis, California. The streamflow of each POI was estimated by a formula based upon the seasonal flow at each POI and the seasonal flow located at the gage, the watershed area above the POI and also above the gage, and the precipitation volumes at the POI and also at the gage. As stated, the CFII is a percentage obtained by dividing the demand by the supply. Results of the CFII analysis are shown in **Table 4**.

**TABLE 4 – CUMULATIVE EFFECTS ON STREAMFLOW<sup>22</sup>**

POI	Supply	Demand
	Calculated Seasonal Unimpaired Flow (acre-feet)	CFII Value (%)
1	11,828.4	0.15
2	64,348.6	0.25
3	230,506	0.23
4	231,938	0.80
5	367,535.8	0.50

Before the Division can issue a water right permit, it must make a finding with respect to unappropriated water available to supply the applicant. 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. An assessment of the project’s potential impacts to instream biological resources is provided in the Biological Resources section of this document.

All five CFII values for the POIs are less than one percent, which means that the demand for water is less than one percent of the total water available for that season. The relatively low CFII values indicate that there is sufficient water supply in the South Fork Gualala River for the proposed project and approval of the application should not adversely affect any senior water right holders. According to the DFG-NMFS Draft Guidelines for Maintaining Instream Flows to Protect Fisheries Resources Downstream of Water Diversions in Mid-California Coastal Streams<sup>23</sup> (DFG-NMFS Draft Guidelines) the level of impairment identified by the CFII will determine the likely study effort needed to address the significance of cumulative impacts of a new water right project. In cases where the CFII is less than five percent, there is little chance of significant cumulative impacts due to the diversion and the project does not require additional studies to assess these impacts. Based on the CFII results and the DFG-NMFS Draft Guidelines, impacts to water volumes and temperature, and seasonal flow patterns from project implementation would be less than significant. The project also would not result in a substantial increase or threat from invasive, non-native plants and wildlife.

To ensure that water is diverted in accordance with the project description and Division requirements, the following permit terms, substantially as follows, shall be included in any water right permit or license issued pursuant to Application 31373:

- *The maximum rate of diversion to offstream storage shall not exceed 2.0 cubic feet per second.*
- *The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed a total of 13 acre-feet per annum to be collected from December 15 of each year to March 31 of the succeeding year as follows: 8 acre-feet per annum in Reservoir 1 and 5 acre-feet per annum in Reservoir 2.*
- *Before storing water in the reservoirs, Permittee shall install a staff gage in each reservoir satisfactory to the Deputy Director for Water Rights, for the purpose of*

determining water levels in each reservoir. The staff gages must be maintained in operating condition as long as water is being diverted or used under this permit.

Permittee shall record the staff gage readings on the last day of each month and on December 15 annually. Permittee shall record the maximum and minimum water surface elevations and the dates that these water levels occur each water-year between October 1 and September 30. Permittee shall maintain a record of all staff gage readings and shall submit these records with annual progress reports, and whenever requested by the Division of Water Rights.

The State Water Resources Control Board may require release of water that cannot be verified as having been collected under a valid basis of right.

- *Prior to diversion or use of water under this permit, Permittee shall install an in-line flow meter, satisfactory to the Deputy Director for Water Rights that measures the instantaneous rate and the cumulative amount of water diverted from the South Fork Gualala River.*

*This in-line flow meter must be maintained in operating condition as long as water is being diverted or used under this permit. Permittee shall maintain a record of the end-of-the-month meter readings and of the days and amounts of actual diversion, and shall submit these records with annual progress reports, and whenever requested by the Division of Water Rights.*

- *For the protection of fish and wildlife, under all bases of right, Permittee shall during the period from December 15 through March 31 bypass a minimum of 23.7 cubic feet per second. The total streamflow shall be bypassed whenever it is less than 23.7 cubic feet per second.*
- *Prior to the start of the diversion or use of water under this permit, the Permittee shall submit a Compliance Plan for approval by the Deputy Director for Water Rights that will demonstrate compliance with the flow bypass terms specified in this permit. The Compliance Plan shall include the following:*
  - a) *A description of the physical facilities (i.e., outlet pipes, siphons, pipelines, bypass ditches, splitter boxes, etc.) that will be constructed or have been constructed at the project site and will be used to bypass flow;*
  - b) *A description of the gages and monitoring devices that will be installed or have been installed to measure streamflow and/or reservoir storage capacity, including any necessary calibration;*
  - c) *A time schedule for the installation and rating of these facilities;*
  - d) *A description of the frequency of data collection and the methods for recording bypass flows and storage levels;*
  - e) *An operation and maintenance plan that will be used to maintain all facilities in good condition; and*
  - f) *A description of the events that will trigger recalibration of the monitoring devices, and the process that will be used to recalibrate.*

The Permittee shall be responsible for all costs associated with developing the Compliance Plan, and installing and maintaining all flow bypass and monitoring facilities described in the Compliance Plan.

Permittee shall maintain all measurements and other monitoring required by this condition. Permittee shall provide measuring and monitoring records to the Deputy Director for Water Rights within 15 days upon request by the State Water Resources Control Board, the Deputy Director for Water Rights, or other authorized designees of the State Water Resources Control Board.

Diversion or use of water prior to approval of the Compliance Plan and the installation of facilities specified in the Compliance Plan is not authorized.

- Permittee shall prevent any debris, soil, silt, cement that has not set, oil, or other such foreign substance from entering into or being placed where it may be washed by rainfall runoff into the waters of the State.
- Permittee shall not use more water under the basis of riparian right on the place of use authorized by this permit than Permittee would have used absent the appropriation authorized by this permit. According to the Division's records, riparian water has not been used on the place of use authorized under this permit during the diversion season authorized under this permit. Therefore, consistent with this term, Permittee may not divert any additional riparian water for use on the place of use authorized by this permit under basis of riparian right during the diversion season authorized under this permit. With the Deputy Director for Water Rights approval, this information may be updated, and Permittee may use water under basis of riparian on the authorized place of use during the authorized diversion season, provided that Permittee submits reliable evidence to the Deputy Director for Water Rights quantifying the amount of water that Permittee likely would have used under the basis of riparian right absent the appropriation authorized by this permit. The Deputy Director for Water Rights is hereby authorized to approve or reject any proposal by Permittee to use water under the basis of riparian right on the place of use authorized by this permit.
- Permittee shall report any non-compliance with the terms of the permit to the Deputy Director for Water Rights within three days of identification of the violation.

**Findings**

The proposed project would not result in significant impacts to hydrology and water quality. The identified permit terms (above) would ensure that water is diverted in accordance with the project description and Division requirements.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**4. 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 DFG 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, and regulations, or by the DFG or USFWS?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" 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 type="checkbox"/>            | <input checked="" 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 type="checkbox"/> | <input type="checkbox"/>            | <input checked="" 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"/> |

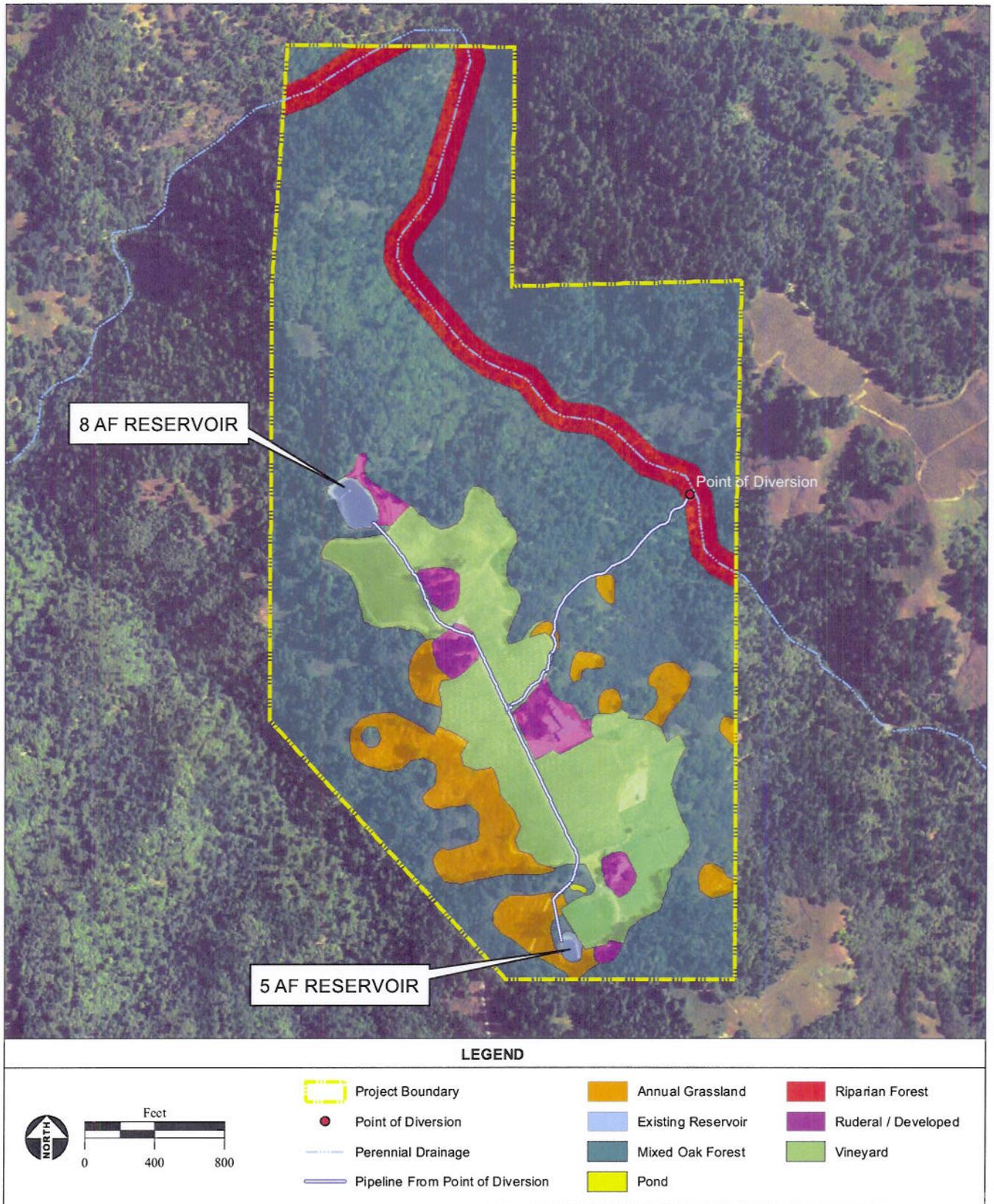
The property site is located approximately three miles east of the Pacific Ocean. The South Fork Gualala River flows across the northeast corner of the subject property. The area immediately around the site is dominated by mixed oak forest with areas of grassland.

Analytical Environmental Services (AES) prepared the report *Biological Resources Assessment* for the proposed project<sup>24</sup>; a copy of the report is on file with the Division. Summary information is provided below.

An AES biologist conducted a field assessment of the survey area on May 24, 2007 (**Figure 3**). The site was surveyed on foot using aerial photos and topographic maps as well as a Trimble GeoXT GPS unit. All visible fauna and flora were noted and identified to the lowest possible taxon. Habitat types occurring on the project site were characterized and evaluated for their potential to support regionally occurring special-status species. Additionally, the study area was assessed for the presence of jurisdictional water features (waters of the U. S.), isolated wetlands, and other biologically sensitive features. The field survey was timed to visit the project site during the bloom period for special-status plant species with potential to occur in the study area. The field survey was conducted outside of the typical bloom period of one plant species, swamp harebell (*Campanula californica*). Despite the fact that swamp harebell may not have been blooming during the field assessment, it would have been identifiable vegetatively as a species of *Campanula*.

### Vegetation Community and Wildlife Habitat Types

Five vegetation community types were identified within the Flowers Vineyard property boundaries: ruderal/disturbed, grassland, riparian forest, mixed oak forest, and vineyard. The habitat types found within the Flowers Vineyard property are described below. **Figure 4** shows the location of these vegetation communities within the subject property, while **Figure 5** provides representative photographs. The vegetation communities are described below.



SOURCE: Google Earth Aerial Photograph, June 14, 2005; AES 2008

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**Figure 4**  
Habitat Map



## **Habitats**

### Ruderal/disturbed

Subject to human disturbance and land clearing activities, ruderal areas are colonized by weedy species of grasses and forbs. The ruderal/disturbed vegetation community occurs around the winery, houses, and other existing buildings on the subject property. Grass species observed in the community include: Italian ryegrass (*Lolium multiflorum*), barley (*Hordeum marinum gussonianum*), dogtail grass (*Cynosurus echinatus*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and oat (*Avena sativa*). Observed forbs include: yellow-star thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pycnocephalus*), field bindweed (*Convolvulus arvensis*), pineapple weed (*Chamomilla suaveolens*), and narrowleaf plantain (*Plantago lanceolata*).

### Grassland

This habitat is generally dominated by grasses, but also contains various forb species. The grassland vegetation community occurs in several small areas adjacent to vineyards. Grass species observed include: soft chess, ripgut brome, dogtail grass, oat, and Italian ryegrass. Forbs observed include: rose clover, storksbill (*Erodium* sp.), yellow star thistle, geranium (*Geranium dissectum*), vetch (*Vicia* sp.), and milk thistle (*Silybum marianum*). This community corresponds to Non-Native Grassland in the Holland system<sup>25</sup>, and California annual grassland series in Sawyer and Keeler-Wolf's *A Manual of California Vegetation*<sup>26</sup>.

### Riparian Forest

Riparian forest consists of a tree overstory adjacent to a water channel, with an understory of shrubs, grasses and forbs. Riparian forest occurs along the length of the South Fork Gualala River, including the location of the POD within the study area. The canopy of this vegetation community is dominated by California bay (*Umbellularia californica*), coast live oak (*Quercus agrifolia*), Douglas fir, alder (*Alnus* sp.), and bigleaf maple (*Acer macrophyllum*). Shrubs observed within the riparian forest include coyote brush (*Baccharis pilularis*), California rose (*Rosa californica*), and poison oak (*Toxicodendron diversilobum*). **Figure 5: Photo 1** shows riparian forest at the POD on the project site.

### Mixed Oak Forest

Mixed oak forest is dominated by a mixed tree overstory, with an understory of forbs, grasses, and shrubs. The mixed oak forest vegetation community occurs on slopes to the west, south, and east of the vineyards and adjacent to the 5-af reservoir (**Figure 5: Photo 2**). The canopy of the mixed oak forest vegetation community on the subject property is dominated by coast live oak, black oak (*Quercus kelloggii*), Oregon oak (*Quercus garryana*), Douglas fir (*Pseudotsuga menziesii*), and California bay. This community corresponds to broadleaf upland forest in the Holland system, and the mixed oak series in Sawyer and Keeler-Wolf's *A Manual of California Vegetation*<sup>27</sup>. **Figure 5: Photo 3** shows mixed oak forest on the project site.

### Vineyard

Vineyard consists of single species planted in rows, supported by wood and wire trellises. Vineyard habitat occurs on top of the ridge, north of the 5-af reservoir and south of the 8-af





PHOTO 1

The existing POD in the Riparian Forest on South Fork Gualala River. View to northeast.



PHOTO 3

Mixed oak forest vegetation community adjacent to northern portion of place of use. View to east.



PHOTO 2

Five af reservoir in southern portion of study area. View to north.



PHOTO 4

Vineyard vegetation community and place of use adjacent to pipeline route. View to southwest.



reservoir. Vegetation within the understory comprises herbaceous annual and perennial “weedy” species, often planted to protect, improve, and preserve soil conditions. Between rows of vines, herbaceous plants and grasses observed are similar to those found in the ruderal/disturbed vegetation community type, but occur at a much lower density. **Figure 5: Photo 4** shows vineyard on the project site.

### **Waters of the U.S.**

The field survey identified one pond and one perennial drainage in the study area, in addition to two existing offstream reservoirs (**Figure 3**). The pond is situated on a hillside in the southern portion of the project site with no apparent channel to provide inflow. According to the Vineyard General Manager, the pond is fed by spring water and rainfall. The pond is generally full year round. Stored water has previously been diverted into and out of the pond; however, this is no longer part of the project operations. When the pond is full, water flows through a culvert under the main driveway and into a downstream channel. Initial observations by Division staff during a July 2009 site visit suggest that the channel is likely a Class II stream. The pond and stream may be subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA).

The perennial drainage is the South Fork Gualala River, where the POD is located. The South Fork Gualala River is likely to be subject to regulation by USACE under Section 404 of the CWA, as well as by the DFG under Sections 1600 – 1616 of the DFG Code. The shapes, sizes, and jurisdictional status of all features identified herein are approximate and have not been confirmed by jurisdictional agencies. None of the project components constructed after the environmental baseline date were developed in the vicinity of wetlands or waters that are potentially subject to regulation.

### **Special-status Species**

For the purposes of this assessment, “special status” is defined to be a species of management concern to State and Federal resource agencies, and include those species that are:

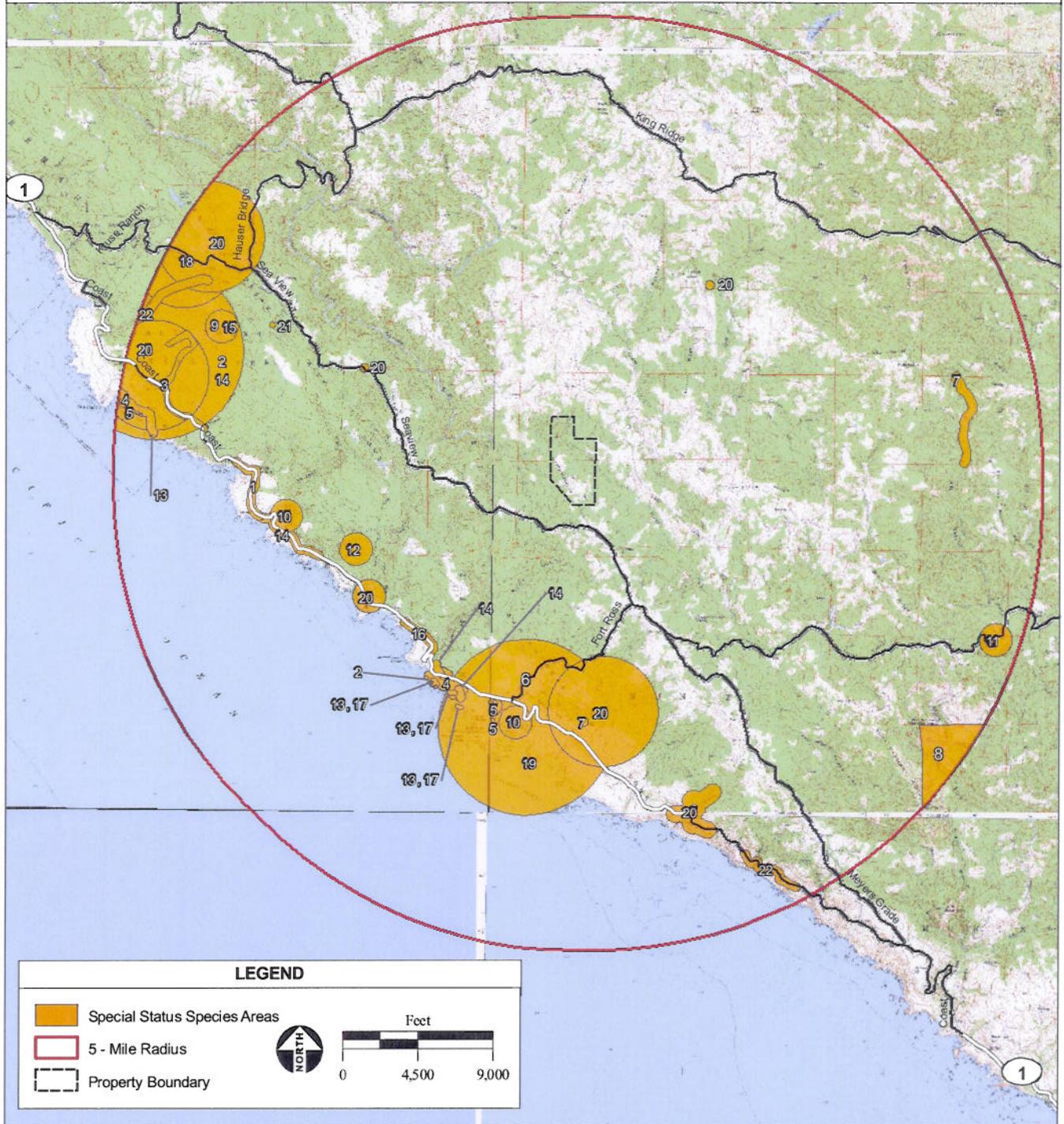
- Listed as endangered, threatened, or candidate for listing under the Federal Endangered Species Act;
- Listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act of 1970;
- Designated as endangered or rare, pursuant to California Fish and Game Code (§ 1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§§ 3511, 4700, or 5050);
- Designated as species of special concern by the California Department of Fish and Game (CDFG); and
- Plants or animals that meet the definitions of rare or endangered under CEQA, including plants ranked by the California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California” (Lists 1A, 1B, and 2).

Species having only global rank (G-rank) and State rank (S-rank) in the CNDDDB are not considered special-status species in this assessment. All records of special-status species occurrences within five miles of the project site were used to produce a five-mile Radius Map (**Figure 6**)<sup>28</sup>. Fifteen plant species, five animal species, and two sensitive habitats are identified on the map. The sensitive habitats are coastal terrace prairie, and Mendocino pygmy cypress forest, both of which do not occur within the study area.



**SPECIAL STATUS SPECIES**

- |                                 |                                    |                                  |                          |
|---------------------------------|------------------------------------|----------------------------------|--------------------------|
| 1 - Baker's goldfields          | 7 - foothill yellow-legged frog    | 13 - perennial goldfields        | 19 - Sonoma spineflower  |
| 2 - Blasdale's bent grass       | 8 - holly-leaved ceanothus         | 14 - purple-stemmed checkerbloom | 20 - Sonoma tree vole    |
| 3 - coast lily                  | 9 - Mendocino Pygmy Cypress Forest | 15 - pygmy cypress               | 21 - swamp harebell      |
| 4 - coastal bluff morning-glory | 10 - monarch butterfly             | 16 - rose leptosiphon            | 22 - woolly-headed gilia |
| 5 - Coastal Terrace Prairie     | 11 - Napa false indigo             | 17 - short-leaved evax           |                          |
| 6 - dark-eyed gilia             | 12 - osprey                        | 18 - Sonoma arctic skipper       |                          |



SOURCE: "Fort Ross, CA" USGS 7.5 Minute Topographic Quadrangle  
 Unsectioned Area of Campmeeting Ridge, T8N R12W, Mt. Diablo  
 Baseline & Meridian; California Natural Diversity Database, 2007; AES 2008

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**Figure 6**  
 CNDDDB 5-Mile Radius Map



### Plant Species

Plant species identified on the five-mile radius map include: Napa false indigo (*Amorpha californica* var. *napensis*), swamp harebell (*Campanula californica*), holly-leaved ceanothus (*Ceanothus purpureus*), coast lily (*Lilium maritimum*), Baker's goldfields (*Lasthenia macrantha* ssp. *bakeri*), Blasdale's bent grass (*Agrostis blasdalei*), Sonoma spineflower (*Chorizanthe valida*), coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*), dark-eyed gilia (*Gilia millefoliata*), perennial goldfields (*Lasthenia macrantha* ssp. *macrantha*), purple stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*), pygmy cypress (*Cupressus goveniana* ssp. *pigmaea*), rose leptosiphon (*Leptosiphon rosaceus*), short-leaved evax (*Hesperrevax sparsiflora* var. *brevifolia*), and woolly-headed gilia (*Gilia capitata* ssp. *tomentosa*). Napa false indigo, swamp harebell, holly-leaved ceanothus, and coast lily are discussed in detail below. The study area is outside of the elevation range for the following species: Blasdale's bent grass, coastal bluff morning glory, woolly-headed gilia, dark-eyed gilia, short-leaved evax, rose leptosiphon, and purple stemmed checkerbloom. Suitable habitat for Sonoma spineflower, Baker's goldfields, pygmy cypress, and perennial goldfields does not occur within the study area, nor were these species observed. None of the special-status plant species identified on the five-mile radius map were observed within the study area during the assessment survey.

### Animal Species

Animal species identified on the five-mile radius map include: foothill yellow-legged frog (*Rana boylei*), Sonoma tree vole (*Arbormus pomo*), osprey (*Pandion haliaetus*), Sonoma arctic skipper (*Carterocephalus palaemon magnus*), and monarch butterfly (*Danaus plexippus*). Foothill yellow-legged frog and Sonoma tree vole are discussed below. The Sonoma arctic skipper and monarch butterfly are not considered to be special-status species according to the criteria presented above and are not discussed further. Osprey nest and forage near large open bodies of water, which are not present in the vicinity of the study area. None of the animal species identified on the five-mile radius map were observed within the study area during the assessment survey.

A list of regionally occurring special-status plant and animal species was compiled based on a review of preliminary data and a summary of the regionally occurring special-status species is presented in Appendix E of the 2007 Biological Resource Assessment report prepared for the Flowers Vineyard Application<sup>29</sup>. Habitat requirements for each special-status species were assessed and compared to the habitats occurring within the property and surrounding areas.

Based upon this review and comparing the habitat needs of species and the habitat found in the study area, five special-status plant species and five special-status animal species were identified as likely to occur onsite. The name, regulatory status, habitat requirements, and period of identification for these species are identified in **Table 5**. Each special-status species and their potential presence on the project site are discussed in further detail below.

**TABLE 5 – SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE STUDY AREA<sup>30</sup>**

Species	Status	Habitat Description	Period of Identification	Area of Potential Occurrence in Study Area
<b>Plants</b>				
<i>Amorpha californica</i> var. <i>nepensis</i> Napa false indigo	--/--/1B	Chaparral, woodland, and openings in broadleaf forest; elevations 394-6562 feet.	April - July	Adjacent to POD and Reservoir
<i>Campanula californica</i> swamp harebell	--/--/1B	Found in mesic habitats. Found in bogs, fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, marshes and swamps of freshwater, and north coast coniferous forest from 1 to 1329 feet.	June - October	Adjacent to POD and Reservoir
<i>Ceanothus purpureus</i> holly-leaved ceanothus	--/--/1B	This species occurs in rocky or volcanic soil within chaparral and cismontane woodland habitats from 394 to 2100 feet.	February - June	Adjacent to POD and Reservoir
<i>Lilium maritimum</i> coast lily	--/--/1B	Broadleaf upland forest, closed-cone coniferous forest, coastal prairie, coastal scrub, freshwater marshes, or north coast coniferous forest; elevations 16-1099 feet.	May - August	Adjacent to POD and Reservoir
<i>Streptanthus glandulosus</i> var. <i>hoffmanii</i> secund jewel-flower	--/--/1B	Occurs in chaparral, cismontane woodland, and valley and foothill grassland in rocky (and often serpentine) soils; elevations 394 to 1558 feet.	March - July	Adjacent to POD and Reservoir
<b>Fish</b>				
<i>Oncorhynchus kisutch</i> coho salmon – central California coast	FE/CE/--	Spawning: streams with pool and riffle complexes. For successful breeding, require cold water and gravelly stream bed.	Adults return mid-November to mid-January	POD
<i>Oncorhynchus mykiss</i> Northern California steelhead	FT/CSC/--	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks.	Winter: December to March Summer: March to January	POD
<i>Oncorhynchus tshawytscha</i> California coastal Chinook salmon	FT/--/--	Spawning: streams with pool and riffle complexes. For successful breeding, require cold water and gravelly streambed.	August - October	POD
<b>Amphibians</b>				
<i>Rana boylei</i> foothill yellow-legged frog	--/CSC/--	Inhabits rocky streams in a variety of habitats including woodlands, riparian, coastal scrub, chaparral, and wet meadows. Rarely encountered far from permanent water sources.	March - May	POD
<b>Mammals</b>				
<i>Arborimus pomo</i> Sonoma tree vole (CA red tree vole)	--/CSC/--	Occurs in old-growth and other forests, mainly Douglas fir, redwood, and montane hardwood-conifer habitats.	All Year	Adjacent to POD and Reservoir

NOTES:

- FE Federal Endangered
- FT Federal Threatened
- CE California Endangered
- CSC California Species of Special Concern
- 1B CNPS List 1B

## Special-Status Plants

### **Napa false indigo (*Amorpha californica* var. *napensis*)**

Federal Status – None

State Status – None

Other – CNPS 1B

Napa false indigo is a deciduous shrub in the bean (Fabaceae) family that occurs in the North Coast Ranges and San Francisco Bay Area in the California Floristic Province<sup>31</sup>. This plant has pinnately compound leaves, purple flowers, and yellow stamens. It is known to occur in the openings of broad-leaved upland forests, cismontane woodlands and chaparral at 394 to 6562 feet in elevation. The blooming period is from April-July.

The closest record of Napa false indigo in relation to the subject property is a 1980 collection located approximately 5 miles to the east<sup>32</sup>. Napa false indigo was not observed within the study areas of the subject property during the bloom season field assessment. Napa false indigo is not expected to occur in the study area, as it was not observed within the study area during the bloom-period field survey when the flowering shrubs would have been easily identifiable.

### **Swamp harebell (*Campanula californica*)**

Federal Status – None

State Status – None

Other – CNPS 1B

A perennial herb in the Campanulaceae family, the swamp harebell is a pale purple to blue flower fading to white at the tips of the petals. It occurs in mesic areas (such as seeps and marshes) in North Coast coniferous forests, meadows, and seeps along the north and central coasts. It blooms from June to October.

The closest record of swamp harebell occurs approximately three miles northwest of the subject property in a roadside ditch/seep in an area of mixed evergreen forest<sup>33</sup>. Swamp harebell was not observed within the study areas of the subject property during the field assessment. The May 24, 2007 field assessment occurred just prior to the bloom season for swamp harebell. Despite the fact that swamp harebell may not have been blooming during the field assessment, it would have been identifiable vegetatively as a species of *Campanula*. Due to the lack of any *Campanula* species being observed, it is unlikely that swamp harebell occurs within the study area.

### **Holly-leaved ceanothus (*Ceanothus purpureus*)**

Federal Status – None

State Status – None

Other – CNPS 1B

Holly-leaved ceanothus is a species of California lilac that occurs on dry hills dominated by shrubs, generally in chaparral or cismontane woodland habitats on volcanic, rocky soil.

The closest record of holly-leaved ceanothus is a 1964 occurrence approximately five miles southeast of the subject property on basic igneous rocks<sup>34</sup>. Holly-leaved ceanothus was not observed within the study area of the subject property during the bloom season field

assessment. Additionally, the soil present within the study area is neither rocky nor volcanic in nature. Holly-leaved ceanothus is not expected to occur within the study area.

**Coast lily (*Lilium maritimum*)**

Federal Status – None

State Status – None

Other – CNPS 1B

The coast lily is a perennial flower in the lily (Liliaceae) family. It has bright orange or red flowers, and occurs in coniferous forests in the North Coast region, as well as closed-cone and broadleaf forests and coastal prairie and scrub. It is commonly found along roadside ditches and blooms from May to August.

The closest record of coast lily is from 2003 and occurs approximately five miles west of the subject property in coastal scrub and Douglas fir and bishop pine forest<sup>35</sup>. Coast lily was not observed within the study area of the subject property during the bloom season field assessment. Coast lily is not expected to occur in the study area because it was not observed within the study area during the bloom-period field survey when the flowering perennial would have been easily identifiable.

**Secund jewel-flower (*Streptanthus glandulosus* var. *hoffmanii*)**

Federal Status – None

State Status – None

Other – CNPS 1B

Secund jewel-flower is an annual flower in the mustard family that grows in chaparral, cismontane woodland, and valley and foothill grassland in rocky soil and often serpentine soil at elevations from 394 to 1,558 feet. Secund jewel-flower blooms from March to July.

The closest record of Secund jewel-flower occurs approximately eight miles southeast of the subject property associated with California bay and California buckeye on a moist steep bank of rocky non-serpentine soil<sup>36</sup>. Secund jewel-flower was not observed within the study areas of the subject property during the bloom season field assessment. Secund jewel-flower is not expected to occur within the study area because it was not observed within the study area during the bloom-period field survey when the flowering annual would have been easily identifiable.

**Special-Status Animals**

**California coastal Chinook salmon (*Oncorhynchus tshawytscha*)**

Federal Status – Threatened

State Status – None

Other – None

The California coastal ESU of Chinook salmon spawns in larger coastal streams from Redwood Creek in Humboldt County, California south to the Russian River in Sonoma County, California (64 Federal Register 249-250)<sup>37</sup>. The largest run is in the Eel River watershed, though significant runs also occur in the San Joaquin, Tuolumne, Consumnes, American, Feather, Sacramento, and Pit River watersheds. This anadromous salmon enters rivers from late summer to early fall to spawn as soon as it reaches the spawning grounds. It requires coarse gravel and cold waters for spawning. Juveniles emerge in the spring and move downstream.

California coastal Chinook salmon are fall-run, ocean-type fish. Spawning migration peaks in September and October. Spawning occurs from late September to December, peaking in October and November. Juveniles emerge from December to March and spend one to seven months in-stream before emigrating to the ocean. Juvenile emigration peaks in spring (March to April). In riverine habitat, juveniles tend toward shallow edges, where heavy cover or emergent vegetation is present<sup>38</sup>.

NMFS designated critical habitat for the California coastal Chinook salmon in February, 2000 (65 Federal Register 7764-7787). The critical habitat designation included all accessible river reaches in the Russian River. NMFS also considers these reaches to be Essential Fish Habitat (EFH). According to data presented in CalFish, the South Fork Gualala River on the subject property is not within critical habitat of the California coastal ESU of Chinook salmon<sup>39</sup>.

The South Fork Gualala River at the POD contained moving water at the time of assessment and was approximately 5 to 6 feet wide. Potential habitat for the California Coastal ESU of Chinook salmon may occur along the South Fork Gualala River.

#### **Northern California steelhead (*Oncorhynchus mykiss*)**

Federal Status - Threatened

State Status - None

Other – None

Steelhead is the anadromous form of rainbow trout, which occurs in resident, migratory, and anadromous forms. Northern California steelhead spend their first one to two years in cool, clear, fast-flowing permanent streams from Redwood Creek south to the Gualala River.

NMFS designated critical habitat for Northern California steelhead in September 2005 (70 Federal Register 52488-52627), which included the Gualala River and its tributaries. According to data presented in CalFish<sup>40</sup>, the South Fork Gualala River on the subject property is within critical habitat for Northern California steelhead.

The South Fork Gualala River at the POD contained moving water at the time of assessment and was approximately 5 to 6 feet wide. Potential habitat for Northern California steelhead may occur along the South Fork Gualala River.

#### **Central California coast coho salmon (*Oncorhynchus kisutch*)**

Federal Status – Threatened

State Status – Endangered

Other – None

Like other salmon species, coho salmon are anadromous, migrating from the ocean up freshwater streams to spawn. This species prefers heavily forested, undisturbed watersheds where the water temperature is between 39 and 57°F. Suitable spawning grounds contain riffles with silt-free gravel (where fines make up less than five percent of the substrate) and nearby cover for adults to hide in. The Central California Coast ESU of coho salmon occurs from Punta Gorda in Humboldt County, California, south to the San Lorenzo River<sup>41</sup>.

Coho salmon migrate up and spawn primarily in streams that flow directly into the ocean or are tributaries of large rivers. Spawning migrations begin after heavy late fall or winter rains breach sand bars at the mouths of coastal streams. These migrations typically occur from

approximately mid November to mid January. Spawning generally occurs in January and February. Juvenile coho salmon are generally at highest densities in deep (more than three feet), cool pools with abundant overhead cover, though they use a wide variety of habitats if cover, depth, temperature, and velocities are appropriate. Smolts migrate to the ocean the year following birth. In California streams, emigration occurs from March to May, peaking from late April to mid-May<sup>42</sup>.

NMFS designated critical habitat for the central California coast coho salmon in May 1999. The critical habitat designation included all accessible river reaches in the range of the ESU, which it further defines as those reaches “within the historical range of the ESU that can still be occupied by any life stage of coho salmon” (64 Federal Register 24049-24062). NMFS also considers these reaches to be EFH. According to data presented in CalFish, the South Fork Gualala River on the subject property is within the range of the central California ESU of coho salmon, and thus within critical habitat and EFH<sup>43</sup>.

The South Fork Gualala River at the POD contained moving water at the time of assessment and was approximately 5 to 6 feet wide. Potential habitat for central California coast coho salmon may occur along the South Fork Gualala River.

#### **Foothill yellow-legged frog (*Rana boylei*)**

Federal Status – None

State Status – Species of Concern

Other – None

The foothill yellow-legged frog ranges from Oregon south through the Coast Ranges to the Transverse Mountains in Los Angeles County, California, and through the western slope of the Sierra Nevada from Oregon south to Kern County, California. The majority of healthy populations in California are in coastal counties located in northern California<sup>44</sup>.

This species requires shallow, flowing water and appears to prefer small- to moderate-sized streams that have at least some cobble-sized substrate. Egg laying occurs between late March and early June, after the high flows of winter and spring. Foothill yellow-legged frogs are active all year in warmer locations, and may hibernate in colder areas. Unlike the California red-legged frog, the foothill yellow-legged frog is rarely found far from permanent water. It spends most of its time in or near streams in all seasons. Tadpoles require water for at least three or four months before developing into terrestrial frogs. During periods of inactivity, foothill yellow-legged frogs seek cover under rocks in streams or within a few feet of water. Significant migrations or other seasonal movements from breeding areas have not been reported<sup>45</sup>.

The closest record of foothill yellow-legged frog occurs approximately three miles south of the subject property<sup>46</sup>. At the time of assessment, the South Fork Gualala River had flowing water with an approximate stream width of 5 to 6 feet. Foothill yellow-legged frog has the potential to occur along the South Fork Gualala River.

#### **Sonoma (Red) tree vole (*Arborimus pomus*)**

Federal Status – None

State Status – Species of Concern

Other – None

Red tree voles live only in coastal coniferous forests consisting of Douglas fir, Grand fir, Western Hemlock, and/or Sitka Spruce. They live, nest, and feed within the forest canopy.

Males are partly terrestrial, but females are rarely found on the ground. Although many of the factors determining the occurrence of red tree vole are not known, these animals probably require fairly dense, mature stands of conifer forest composed of at least some Douglas fir or Grand fir. In California, they range from the Oregon border southward to Sonoma County along the coast, and in the coastal mountain ranges southward to Mendocino County.

The closest record of red tree vole occurs approximately 1.5 miles south of the subject property<sup>47</sup>. Six additional records occur within five miles of the subject property. Habitat for red tree vole may occur within mixed oak forest.

#### *Question A*

No special-status plant species are expected to occur on the project site. No impacts would occur to special-status plant species due to the proposed project. The South Fork Gualala River may provide suitable habitat for California coastal Chinook salmon, Northern California steelhead, central California coast coho salmon, and foothill yellow-legged frog. All project components within the South Fork Gualala River were developed prior to the environmental baseline and no further construction activities would occur in the South Fork Gualala River. The continued operation and maintenance of the pump shall be compliant with DFG-NMFS Draft Guidelines. The DFG-NMFS Draft Guidelines were developed in 2002 and recommended for use by permitting agencies (including the State Water Board), planning agencies, and water resources development interests when evaluating proposals to divert and use water from northern California coastal streams. The DFG-NMFS Draft Guidelines apply to projects located in the geographic area of Sonoma, Napa, Mendocino, and Marin Counties, and portions of Humboldt County. The DFG-NMFS Draft Guidelines recommend that terms and conditions be included in new water right permits for small diversions to protect fishery resources in the absence of site-specific biologic and hydrologic assessments. The DFG-NMFS Draft Guidelines, in large part, recommend<sup>48</sup>:

1. assessing the cumulative impacts of multiple diversion projects on downstream fisheries habitat by calculating the CFII to estimate the cumulative effects of existing and pending projects in a watershed of interest;
2. limiting new water right permits to diversions during the winter period (December 15 through March 31) when stream flows are generally high;
3. providing a minimum bypass flow downstream of diversions not less than February Median Flow as calculated at the PODs;
4. that new storage ponds be constructed offstream and that permitting of new or existing onstream storage ponds be avoided; and
5. where appropriate, water diversions be screened in accordance with NMFS and DFG screening criteria.

No impacts to waters of the U.S. due to diversion are anticipated based on the results of the WAA prepared by Napa Valley Vineyard Engineering (2006), showing CFII of less than one percent at all POIs (**Table 4**). Direct impacts of the proposed project to California coastal Chinook salmon, Northern California steelhead, central California coast coho salmon, and foothill yellow-legged frog would be reduced to less than significant with mitigation incorporated.

The cumulative diversion of water from the South Fork Gualala River, in concert with other diversions, may lead to indirect and direct cumulative impacts to anadromous salmonids downstream. As mentioned previously, the continued operation and maintenance of the off-set well shall be compliant with the DFG-NMFS Draft Guidelines

As discussed in the Hydrology and Water Quality section above, all five CFII values for the POIs are less than one percent. The relatively low CFII values indicate that there is sufficient water supply in the South Fork Gualala River for the proposed project and approval of the application should not adversely affect any senior water right holders. According to the DFG-NMFS Draft Guidelines, the level of impairment identified by the CFII will determine the likely study effort needed to address the significance of cumulative impacts of a new water right project. Where CFII values are less than five percent, there is little chance of significant cumulative impacts due to the diversion and the project does not require additional studies to assess these impacts.

The project includes offstream reservoirs and will not result in cumulative flow reduction that exceeds the recommendations contained in the DFG-NMFS Draft Guidelines. A minimum bypass flow equal to the February Median Flow will be imposed as a term in any permit or license issued for Application 31373. Approval of the project will therefore be consistent with the DFG-NMFS Draft Guidelines.

Impacts to water volumes and seasonal flow patterns from project implementation would be less than significant. The permit terms listed in the Hydrology and Water Quality section above shall be included in any permit or license issued pursuant to Application 31373 to ensure that water is diverted in a manner that is consistent with the project description and Division requirements.

As stated above, foothill yellow-legged frogs have been identified in the vicinity of the proposed project. The foothill yellow-legged frog could be adversely affected by reduced stream flows or through habitat encroachment. The proposed minimum bypass (23.7 cfs) will eliminate the potential for flow related impacts to non-fish aquatic life. In order to protect sensitive habitats on the project site and for the protection of fisheries and other aquatic resources, the following additional permit term, substantially as follows, shall be included in any water right permit or license issued pursuant to Application 31373:

- *This permit does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a "take" will result from any act authorized under this water right, the permittee shall obtain authorization for an incidental take prior to construction or operation of the project. Permittee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this permit.*

The red tree vole may occur within mixed oak forest on the project site. A small area of mixed oak forest was removed after the environmental baseline date in order to construct the 5-af reservoir. Therefore, the potential impacts of reservoir construction are considered within the scope of this document.

Aerial photographs taken April-May 2000 and June 2005 were used to determine the number of trees removed to construct the 5-af reservoir. Ground based field assessment concluded the species composition of adjacent stands to be 50 percent Douglas fir (*Pseudotsuga menziesii*), 30 percent California bay (*Umbellularia californica*), and 20 percent black oak (*Quercus kelloggii*). The average diameter at breast height (dbh) of mature trees in these stands was approximately 20 inches. With the assumption that existing stands are representative of the removed stand of trees it was concluded that approximately 15 mature trees with dbh of 20 inches were removed. These 15 trees were composed of approximately three black oak, five California bay, and eight Douglas fir (numbers have been rounded up to whole tree numbers).

This cleared area may have provided habitat for the Sonoma tree vole (*Arborimus pomo*), a California Species of Special Concern. The Sonoma tree vole occurs only in coastal coniferous forests consisting of Douglas fir, grand fir (*Abies grandis*), western hemlock (*Tsuga heterophylla*), and/or sitka spruce (*Picea sitchensis*). The closest record of the Sonoma tree vole occurs approximately 1.5 miles south of the subject property<sup>49</sup>. Six additional CNDDB records occur within 5 miles of the subject property. This species was not observed on site during ground surveys but it is a very reclusive species that is difficult to detect. Therefore, the Sonoma tree vole may be present onsite despite being undetected. The removal of mixed oak/coniferous habitat onsite has had a potentially significant impact on the Sonoma tree vole.

The habitat value provided by these trees was absent for a period of time. Therefore, the removed trees should be replaced at a greater than 1:1 ratio to compensate for lost value during the period before replanting and the period of regrowth. Removed trees will be replaced at a 3:1 ratio, which is consistent with DFG replacement guidance<sup>50</sup>. This ratio, with a 75% survival rate of planted trees, will ensure compensation for the trees themselves and their value lost over time.

Planted trees should be placed adjacent to existing stands to provide cover for young trees, increasing survival. This will also allow for contiguous habitat for the Sonoma tree vole upon maturation of the trees. Trees should be planted approximately 35 feet apart to avoid overcrowding and competition as they grow.

The loss of these native trees has resulted in the loss of genetic diversity within the local population, which is important for the survival of the species<sup>51</sup>. Therefore, to compensate for this loss and ensure the loss is not exasperated by the addition of foreign genetic material, replacement tree plantings shall be propagated from local stocks. Seeds harvested on site would be preferable and local native nursery stocks would serve as an alternate source of genetically congruent plantings.

Consistent with DFG guidance regarding tree replacement, AES recommends monitoring of replacement trees until five years of age<sup>52</sup>. This timeline is expected to provide for adequate establishment of the replacement trees.

As such, the following permit term, substantially as follows, shall be included in any water right permit issued pursuant to Application 31373:

- *Permittee shall compensate for the loss of eight Douglas fir, five California bay, and three black oak trees through planting of trees at a replacement ratio of 3:1. Total number of trees to be replanted are 24 Douglas fir (3x8), 15 California bay (3x5), and 9 black oaks (3x3).*

*The tree replacement plantings shall be located west of the 5 acre foot reservoir and within or adjacent to the existing mixed oak forest and annual grassland habitats as identified in Figure 4 of the Initial Study on file for Application 31373. Trees planted should be contiguous to existing stands to facilitate colonization by the Sonoma Tree Vole (*Arborimus pomo*). Proposed replacement trees shall be planted with 35 feet of separation between trunks. Permittee shall provide a map showing the location of each replacement planting within one year of the date of permit issuance and provide updates to the map with subsequent monitoring reports if changes occur.*

*Replacement tree plantings for the mitigation area shall be obtained from a combination of nursery stock grown on site, direct planting in proposed mitigation area from acorns and seeds collected on site, and/or trees obtained from a local native plant nursery or supplier. Plantings will consist of propagules derived from locally collected stock (native of Sonoma County) having a similar genetic origin to indigenous species on site. Permittee shall provide a written statement within one year of permit issuance disclosing the origin of each of the replacement plantings and updates to the written statement with subsequent monitoring reports if failed plantings are replaced or relocated.*

*Permittee shall provide photographic evidence to document the tree replacement plantings within one year of the date of permit issuance and update photographs with subsequent reports if failed plantings are replaced or relocated.*

*Any diversion of water pursuant to this permit is unauthorized if survival of any of the replacement tree species falls below 75% (18 Douglas fir, 12 California bay, and 7 black oaks, respectively). Permittee shall maintain replacement plantings such that survival rate of each species is not less than the identified thresholds. Survival rate shall be documented and submitted by Permittee annually.*

*Annual monitoring reports shall be prepared by a biologist or certified arborist whose qualifications are acceptable to the Deputy Director for Water Rights. The initial monitoring report shall be submitted to the Deputy Director for Water Rights within one year of the date of permit issuance.*

*The initial monitoring report shall include documentation of:*

- *planting locations (map)*
- *species of each planting*
- *size of each tree at planting (height and diameter at breast height if applicable)*
- *statement identifying the origin of each replacement tree*
- *photographic evidence documenting planted replacement trees*

*Subsequent annual reports shall be submitted annually to the Deputy Director for Water Rights and shall include documentation of:*

- *size of each tree (height and diameter at breast height if applicable)*
- *age of each tree*
- *health status of each tree*
- *photographic evidence documenting progress of replacement trees*
- *locations (updated map), initial size measurement (height and diameter and breast height), photographic evidence and statement of origin for new plantings, if necessary to replace failed plantings.*

*These reports shall be filed annually for a minimum of five years until at least 75% of each species has survived five years. At this time a final report shall be filed that provides written and photographic documentation of the following:*

- *location of each tree*
- *size of each tree (height and diameter at breast height)*
- *age of each tree*

*Permittee shall refrain from any activities which may impact the replacement plantings including but not limited to development and timber harvesting in the replanting area.*

### Summary

As stated above, approval of the project will be consistent with the DFG-NMFS Draft Guidelines and significant impacts to anadromous fish are not expected to occur as a result of diversion. In order to protect sensitive habitats on the project site and for the protection of fisheries and other aquatic resources, the above mentioned, additional permit terms shall be included in any water right permits to reduce any potential project-related impacts to less than significant levels. After implementation of the above permit terms, impacts to potential special-status species habitat are considered less than significant.

### *Question B*

None of the project components developed after the CEQA baseline date are located within riparian habitats or other sensitive natural communities. No further construction activities will occur as a result of the project. No other sensitive natural communities occur on the project site. No impacts to riparian habitat or other sensitive natural communities would occur as a result of the proposed project.

### *Question C*

As discussed above, none of the project components constructed after the environmental baseline date were developed in the vicinity of a wetlands potentially subject to regulation. Development of the proposed project would therefore not have an adverse effect through direct removal, filling, or hydrological interruption on jurisdictional waters. No impacts to wetlands would occur as a result of the project.

### *Question D*

The South Fork Gualala River has the potential to be used as a fish migratory corridor by spawning anadromous salmonids. All project components within the South Fork Gualala River on the project site were developed prior to the time of the environmental baseline and the project components constructed after the environmental baseline did not occur in areas of the project site that would affect the movement of any native resident or migratory fish or wildlife species. There are no future construction activities associated with the project that would occur in the South Fork Gualala River

As stated above, the continued operation and maintenance of the off-set well and pump shall be compliant with the DFG-NMFS Draft Guidelines, which includes a limited diversion season of December 15 to March 31, maintenance of minimum bypass flows equal to the February median flow at the POD, protection of the natural hydrograph, and implementation of fish passage and protection measures that are in accordance with NMFS and DFG criteria. No impacts to waters of the U.S. due to diversion are anticipated based on the results of the WAA prepared by Napa Valley Vineyard Engineering (2006), showing CFII of less than one percent at all POIs.

No impacts to the movement of any native resident or migratory fish or wildlife species, established native resident or migratory corridors, or native wildlife nursery sites would occur as a result of the proposed project.

DFG may require a Lake and Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code before any action that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream or lake designated by DFG. The following permit term, substantially as follows, shall be included in any water right permit or license issued pursuant to Application 31373:

- No work shall commence and no water shall be diverted, stored or used under this permit until a copy of a Lake and Streambed Alteration Agreement between the California Department of Fish and Game and the Permittee is filed with the Division of Water Rights. Compliance with the terms and conditions of the agreement is the responsibility of the Permittee. If a Lake and Streambed Alteration Agreement is not necessary for this permitted project, the Permittee shall provide the Division of Water Rights a copy of a waiver signed by the California Department of Fish and Game.

*Questions E and F*

No local policies or ordinances protecting biological resources such as tree preservation policies or ordinances apply to the project site. No adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan apply to the project site. No impact would occur.

*Findings*

The proposed project could result in potentially significant impacts to biological resources. However, with implementation of the identified permit terms listed above, potential impacts would be reduced to a less than significant level.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**5. 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 & Monitoring Program of the California Resources Agency, to non-agricultural uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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?

The project site is zoned as a Resources & Rural Development (Agricultural Preserve) District (RRWDA) that allows for very low-density residential development and also the following<sup>53</sup>:

1. Residential Use Types: single-family residential;
2. Civic Use Types: public/private schools and churches;
3. Commercial Use Types: resource management and enhancement activities including, but not limited to, the management of timber, geothermal and aggregate resources, fish and wildlife habitat, and watershed; and
4. Agricultural Use Types: livestock farming, crop production, and firewood harvesting.

The project site is also in an area zoned as Timberland Production District (TP) that allows for the conservation and protection of land capable of producing timber and forest products including, but not limited to, the following<sup>54</sup>:

1. Management of lands and forests for the primary use of commercial production and harvest of trees, including controlled burns;
2. Removal of timber and fuel wood;
3. Recreational and educational uses (hunting, fishing, swimming, occasional camping, etc.);
4. Management of land for watershed, for fish and wildlife habitat, fish rearing ponds, hunting and fishing, grazing, where the uses are incidental to the primary use;
5. Maintenance and construction of gas, electric, or water generation/transmission facilities;
6. Storage of contractor equipment incidental to the onsite growing and harvesting of forest products; and
7. Other permitted uses include: timber harvesting and milling, temporary or seasonal sales and promotion, one (1) single-family dwelling unit with accessory buildings, occasional cultural events (requiring County permit), day care facilities, beekeeping, telecommunication facilities, and wind energy systems.

Agriculture and agricultural production are valued land uses in Sonoma County. Agricultural goals outlined in the Agriculture section of the Land Use Element of the Sonoma County General Plan include<sup>55</sup>:

Goal AR-1: Promote a healthy and competitive agricultural industry whose products are recognized as being produced in Sonoma County.

Goal AR-2: Maintain, for the timeframe of this plan, agricultural production on farmlands at the edges but beyond the urban service boundaries of cities and urban service areas, to minimize the influence of speculative land transactions on the price of farmland and to provide incentives for long-term agricultural use.

Goal AR-3: Maintain the maximum amount of land in parcel sizes that a farmer would be willing to lease or buy for agricultural purposes.

Goal AR-4: Allow farmers to manage their operations in an efficient, economic manner with minimal conflict with nonagricultural uses.

*Findings*

Impacts to noise 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
<b>7. Land Use and Planning.</b> Would the project:				
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

The project site is located in Sonoma County approximately eight miles north of the community of Jenner. The Sonoma County General Plan Land Use Element and related policies guide the growth and the development of land in the County. The Land Use Element designates the project area as Resources & Rural Development. Permitted land uses within this category include:

1. Single-family dwellings;
2. Resource management and enhancement activities, including but not limited to, the management of timber, geothermal, and aggregate resources, fish and wildlife habitat, and watershed;
3. Livestock farming, crop production, firewood harvesting, and public and private schools are included;
4. Lodging, campgrounds, and similar recreational and visitor serving uses provided they shall not be inconsistent with the purpose and intent of this category (may be further established in planning area policies); and
5. Resource-related employee housing, processing facilities related to resource production, as well as incidental equipment and materials storage (consistent with any applicable resource management plans). Geothermal uses are limited to the primary KGRA. Aggregate resource uses are limited to those consistent with the Aggregate Resources Management Plan.

The County Zoning Ordinance designates the two parcels that comprise the project site as a Resources & Rural Development (Agricultural Preserve) District (RRDWA) and as a Timberland Production District (TP). The following summarizes the intent and purpose of each designation respectively<sup>57</sup>:

RRDWA- this category intends to protect:

1. Lands needed for commercial timber production under the California Timberland Productivity Act;
2. Lands within the known Geothermal Resources Area (KGRA);
3. Lands for aggregate resources production;

4. Natural resource lands including, but not limited to, watershed, fish and wildlife habitat and biotic areas;
5. Against intensive development of lands constrained by geologic hazards, steep slopes, poor soils or water, fire and flood prone areas, biotic and scenic areas, and other constraints;
6. Lands needed for agricultural production activities, not already subjected to all of the policies of General Plan's Agricultural Resource Element;
7. County residents from proliferation of growth in areas in which there are inadequate public services and infrastructure; and
8. That public services and facilities not be extensively provided in these areas and that development have the minimum adverse impact on the environment.

TP- this category intends to provide for timberland zoning by:

1. A yield tax imposed at the time of harvest; and
2. Conservation and protection of land capable of producing timber and forest products.

*Question A*

The project site is currently developed for agricultural use and the land use would not change with project approval. The proposed project would not result in the development of physical barriers that would divide an established community. No impact would occur.

*Question B*

The proposed project includes the use of water from an existing 8-af, offstream reservoir, plus a 5-af reservoir and pipelines, constructed and in operation since the environmental baseline, to irrigate approximately 35 acres of vineyard and one acre of residences. This use is consistent with the County's General Plan and Zoning designations and project approval would not conflict with any land use plan, policy, or regulation. No impact would occur as a result of the proposed project.

*Question C*

The project site and nearby vicinity does not include lands under the protection of any habitat conservation plans or natural community conservation plans. The project would not have the potential to conflict with any existing habitat conservation plans or natural community conservation plans; therefore, no impact would occur.

*Findings*

Impacts to land uses would not occur as a result of the project.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>8. Mineral Resources.</b> 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"/>

The State of California classifies mineral lands throughout the State and has designated certain mineral bearing areas as being of regional significance. Local agencies must adopt mineral management policies that recognize mineral information provided by the State, assist in the management of land use that affects areas of Statewide and regional significance, and emphasize the conservation and development of identified mineral deposits<sup>58</sup>.

Various minerals have been mined in Sonoma County during the past century; however, aggregate products are now the dominant commercial minerals. Sonoma County has adopted the Aggregate Resources Management (ARM) plan for obtaining future supplies of aggregate material. This plan serves as the State-mandated mineral management policy for the County. During the process of adoption of the plan, Sonoma County considered the aggregate resource areas subsequently classified as MRZ-2 by the State Geologist. No mineral resources are located near the project site, as mapped in the County of Sonoma General Plan<sup>59</sup>.

*Questions A and B*

No mineral resources are located near the project site as mapped in the Sonoma County General Plan. No impact would occur.

*Findings*

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
<b>9. Hazards and Hazardous Materials. Would the project:</b>				
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?
- 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?

Database searches were conducted for records of known sites of hazardous materials generation, storage, or contamination, as well as known storage tank sites or near the project site. Databases were searched for sites and listings up to a one-mile radius from a point roughly equivalent to the center of the subject property<sup>60</sup>. 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<sup>61</sup>.

#### *Questions A and B*

No further construction activities are required for the proposed project. Hazardous materials that would be used during operation of the proposed project would be limited to common petroleum and agricultural products already in use on the site. When properly used, these products do not present a significant hazard. This is considered a less than significant impact.

#### *Question C*

The project is not located within a quarter mile of any existing or proposed schools. No impact would occur.

#### *Question D*

A search of government environmental records did not reveal any known hazardous materials sites within the project area<sup>62</sup>. No impact would occur.

#### *Questions E and F*

The nearest airport to the project site is the Boonville County Airport located approximately seven miles to the southeast. No impact would occur.

#### *Question G*

The project does not include features that would interfere with an adopted emergency plan. The project components not existing at the time of baseline condition have already been completed; therefore, no further construction activities are associated with the project, and no impact would occur.

#### *Question H*

The project is located in an area that contains fuels (e.g. grasses, shrubs, trees, vines) that are susceptible to wildland fire. No new potential sources of fire would be introduced by the project. This is considered a less than significant impact.

#### *Findings*

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

**10. Population and Housing.** Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

The project site is located approximately eight miles northwest of the town of Jenner, in a relatively rural area of the County. No residential communities are located in the general vicinity of the project site.

**Questions A-C**

The project does not involve the development of any homes or businesses and would maintain existing uses. The proposed project would not generate commercial activities substantial enough to induce significant growth in the project area. The project does not involve the displacement of people or housing. No impacts would occur.

**Findings**

No impacts to the local population and housing would occur as a result of the project.

**11. Transportation and Circulation.** Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 checked="" type="checkbox"/>	<input type="checkbox"/>

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in inadequate emergency access?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with adopted policies regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The project site is located along Seaview Road, which runs in a general north-south direction in Cazadero, California. Approximately three miles away, Highway 1 is the closest major highway to the project site and roughly parallels the pathway of Seaview Road.

*Questions A-F*

The project would not increase traffic in the project area as the land uses would not be altered and no new construction activities would occur. No substantial impediments to emergency access or incompatible uses are anticipated. The project is not expected to result in inadequate parking capacity, or conflict with adopted alternative transportation policies, plans, or programs. Potential impacts are considered less than significant.

*Findings*

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

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>12. Public Services.</b> 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 rations, response times or other performance objectives for any of the public services:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Public services provided to the project area include fire protection by the Timber Cove Fire Department that has approximately 24 volunteer fire fighters. The closest staffed fire station is the Russian River Fire Protection District, located approximately 15 miles to the east, in the town of Guerneville. The Sonoma County Sheriff's Department provides the unincorporated areas of Sonoma County with police protection. Fort Ross Elementary School serves the project area with K-8<sup>th</sup> grade education, while the West Sonoma County Union High School District provides 9-12<sup>th</sup> grade education.

*Questions A-E*

The project would result in the continued use of the project site for agricultural purposes; therefore, would not generate additional demand for government facilities or services. This is considered a less than significant impact to public services.

*Findings*

Impacts to public services as a result of the project are considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>13. Utilities and Service Systems. Would the project:</b>				
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"/>

Residences in the project area rely on private wells for domestic water supply and private septic systems for wastewater treatment. The Sonoma County Landfill accepts solid waste for the project site and vicinity.

*Questions A-G*

The project site is not served by public water and wastewater services. Businesses and rural residences in the project area rely on private wells for domestic water supply and private septic systems for wastewater treatment. No new wastewater would be generated as a result of the proposed project. An analysis of surface water supply is discussed in the Hydrology and Water Quality section of this document, which determined that there are sufficient water supplies in the South Fork Gualala River for all nearby POIs. Additional water supplies, such as connection to public water supply system, would not be required. The project would not increase solid waste or conflict with government regulations concerning the generation, handling, or disposal of solid waste.

*Findings*

No impact to utilities and service systems would result from the project.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>14. Aesthetics.</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

The project area contains scenic resources characteristic of Sonoma County, including mountainous landscapes, agricultural and pastoral settings, and riparian areas. The existing agricultural use of the project site is consistent with the rural aesthetic quality of the project area and nearby vicinity.

*Questions A-D*

The project does not involve the construction of new structures or new sources of light or glare. 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 project area. No impact to aesthetics of the project site would occur.

*Findings*

No impacts would occur to aesthetics as a result of the project.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>15. Cultural Resources.</b> 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). An *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)).”

The California Register of Historic Resources (CRHR) was created in 1992 (Public Resources Code, § 5024.1.) and is administered by the State Historical Resources Commission according to regulations implemented 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 (e.g., National Register of Historic Places). 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.

The 2000 CEQA Guidelines (Section 15064.5) define four cases in which a property may qualify as a significant historical resource for the purposes of CEQA review:

- A. The resource is listed in or determined eligible for listing in the California Register of Historic Resources (CRHR). Section 5024.1 defines eligibility requirements and states that a resource may be eligible for inclusion in the CRHR if it:
  1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
  2. Is associated with the lives of persons important in our past;
  3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
  4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the above criteria, a significant property must also retain integrity. Properties eligible for listing in the CRHR must retain enough of their historic character to convey the reason(s) for their significance. Integrity is judged in relation to location, design, setting, materials, workmanship, feeling, and association. Properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP) are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (Public Resources Code section 5024.1[d][1]).

- B. The resource is included in a local register of historic resources, as defined in section 5020.1(k) of the Public Resources Code, or is identified as significant in a historical resources survey that meets the requirements of section 5024.1(g) of the Public

- Resources Code (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).
- C. The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record.
  - D. The lead agency determines that the resource may be a historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

Under the CEQA Guidelines, an effect is considered significant if a project will result in a substantial adverse change to the resource (PRC Section 21084.1). Actions that would cause a substantial adverse change to a historical resource include demolition, replacement, substantial alteration, and relocation. When it is determined that a project may cause a substantial adverse change, alternative plans or measures to mitigate the effects to the resource(s) must be considered.

### **Environmental Setting**

AES requested a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) on April 12, 2007, prior to the cultural resources field survey. Additional research was conducted using the files, literature, and historic maps maintained by AES. The records search and literature review for this study was done to (1) determine whether known cultural resources had been recorded within or adjacent to the study area; (2) assess the likelihood of unrecorded cultural resources based on archaeological, ethnographical, and historical documents and literature; and (3) to review the distribution of nearby archaeological sites in relation to their environmental setting.

The records search found that the vast majority of the project area, including the existing reservoir sites, POU, and a portion of the pipeline route had been previously surveyed for cultural resources (Jordan, 1989; Jablonowski, 1995)<sup>63 64</sup>. The only portion of the project area that was not subject to a cultural resources survey in the past is the pipeline alignment from the POD on the South Fork of the Gualala River to the eastern margin of the central vineyard block. The previous studies resulted in the documentation of two archaeological sites (CA-SON-1792/H and CA-SON-1793) and an isolated artifact located in proximity to the project area. Site CA-SON-1792/H consists of a sparse lithic scatter of chert debitage and tools, as well as a small concentration of historic-period debris. CA-SON-1793 contains several chert flakes and a possible house pit. A subsequent survey reported a sparse scattering of prehistoric constituents between the two site boundaries, suggesting that these two sites may be portions of one larger, albeit extremely diffuse, resource<sup>65</sup>.

The records search also indicated that an ethnographic village, recorded as CA-SON-176, may be located within the Flowers Vineyard property, although the locational information is unclear and contradictory. Site CA-SON-176 is the location identified by Stewart (1935) as the Kashaya village of *Seepinamatci*, where he noted "large and small [house] pits." In contrast, Barrett (1908:237) places the village roughly one-half mile away from the location plotted by Stewart (1935) and the NWIC. In the course of surveying the project site in 1989, an unsuccessful attempt was made to relocate the site<sup>66</sup>. Jablonowski (1995) also failed to relocate the site during an intensive pedestrian survey despite "excellent" surface visibility. AES archaeologists attempted to find the site on two occasions, both of which were unsuccessful. Given the disagreement in the reported location of the site provided by Stewart (1935) and Barrett (1908), as well as the lack of any visible cultural constituents observed during four

subsequent field investigations spanning nearly twenty years, it is unlikely that CA-SON-176 (*Seepinamatci*) is located within the Flowers Vineyard property.

On March 26, 2007, the State of California Native American Heritage Commission (NAHC) was asked to review the Sacred Lands file for information on Native American cultural resources located within the project area. In a letter dated April 4, 2007, the NAHC responded indicating that one sacred site is located within or near the proposed project area. Two Native American individuals were named in the NAHC response for further consultation. Letters were sent on April 10, 2007 to the two individuals identified as potentially having information on the site mentioned by the NAHC, as well as to other individuals identified by the NAHC.

A telephone response was received on April 12, 2007 from the Tribal Historic Preservation Officer (THPO) of the Stewarts Point Rancheria. The THPO indicated his awareness of the cultural resources within the project vicinity and requested that he be kept informed of project details. The THPO was informed of the May 2007 field survey results via email on May 25, 2007. No other responses were received from individuals identified by the NAHC.

### **Field Survey**

On May 24, 2007 AES archaeologist, Mike Taggart, M.A., conducted a cultural resources survey of the Flowers Water Right project area<sup>67</sup>. The study included an intensive (15 meter transects) pedestrian survey along the pipeline corridor and around the perimeter of each reservoir. Surface visibility was generally poor along the pipeline corridor, with dense vegetation hindering the search for archaeological remains. However, the pipeline traverses relatively steep terrain that was judged to have a low potential for containing significant cultural resources. A cursory survey (30 – 50 meter transects) was also undertaken in the vicinity of the previously reported archaeological sites located on the property.

A supplemental survey was conducted by AES archaeologists Damon Haydu, M.A., and Tobin Rodman, B.A., on September 16 and 17, 2008<sup>68</sup>. During this survey the vineyard areas were recently mowed and as a result the surface visibility was considered excellent. Tight, two-meter pedestrian survey transects were conducted in areas within close proximity of the previously recorded cultural resources. Rakes and hoes were employed to enhance surface visibility. Rodent backdirt piles were inspected for cultural material whenever they were encountered within or near a survey transect.

### **Findings**

As a result of the 2008 survey, the boundary of sites CA-SON-1792/H and CA-SON-1793 was delineated based on the surface expression of cultural constituents. The refined site boundaries were mapped with a Trimble GPS unit, the shape of which differs from the previous mapping of the sites. The difference in the shape of the new site boundaries compared to the old rendering is attributed to the use of advanced GPS technology, which was not widely available at the time of the previous work. Areas within vineyard retained excellent visibility. Outside the vineyard areas dense grasses and other vegetation hindered the close examination of natural ground surfaces in proximity to the reported isolated biface fragment (R1931). CA-SON-1792/H and CA-SON-1793 are described below.

**CA-SON-1792/H:** First recorded by Jordan et al. in 1989, this resource is described as a multi-component site containing both prehistoric and historic-period artifacts located on a broad, flat open ridge. During the September 2008 survey a widely dispersed lithic scatter was observed within vineyard rows and open space. The lithic scatter consisted of 40+ chert flakes, five obsidian flakes, two chert biface fragments, and a chert core. In addition, two aqua bottle glass

fragments were observed. Division staff also visited the site in July 2009 and noted that the lithic scatter is widely dispersed, as described in the September 2008 site record, and that the midden appears to have been distributed more down slope and in a maintenance road bordering the vineyard area. While the midden at this site is evident, there does not appear to be much in the way of other constituents including bone, faunal remains, shell, fire fractured rock, or ground stone. The integrity of the site has been previously impacted.

**CA-SON-1793:** First recorded by Jordan et al. in 1989, this prehistoric archaeological resource is described as a very sparse chert lithic scatter and possible house pit located on a broad, flat open ridge. In September 2008, a diffuse scatter of 11 chert and two obsidian flakes were observed within the previously recorded site boundaries. No evidence of a house pit was observed. Moreover, no cultural constituents were observed in the area between sites CA-SON-1793 and CA-SON-1792/H. Division staff also visited CA-SON-1793 in July 2009 and made similar observations. The flakes are widely scattered and the site boundaries are difficult to identify.

#### *Questions A-D*

The 36-acre POU was developed as vineyard and residential prior to baseline conditions and no further construction or ground-disturbing activities would occur as a result of this project. Two previously recorded archaeological resources, CA-SON-1792/H and -1793, were identified in the vineyard POU. The prehistoric resources identified within the POU have been subjected to impacts related to ongoing agricultural activities. The site areas appear to have been heavily graded in order to reduce the slopes and prevent erosion. Thus, the integrity of both of the sites has been seriously compromised. If there are to be any additional impacts to the sites then further study is recommended to evaluate the resources in accordance with the criteria of CEQA and the CRHR. Should it be deemed necessary to formally evaluate the significance of sites, CA-SON-1792/H and CA-SON-1793, their eligibility would be judged relative to Criterion 4 of the CRHR for their ability to yield information important in prehistory. The constituents noted at the sites (e.g., lithic artifacts and a possible house pit) indicate that the research domains of settlement and subsistence patterns, technology, cultural chronology, and exchange patterns could be addressed from the data contained in sites of this nature, provided that the remains are in appropriate contexts and of sufficient quantity and integrity. In order to limit impacts to these resources the following permit terms, substantially as follows, shall be included in any water right permit or license issued pursuant to Application 31373:

- *The prehistoric resources identified as CA-SON-1792/H and CA-SON-1793 by Analytical Environmental Services in the report titled Cultural Resources Study, Flowers Vineyards Water Right Project (Application 313730) dated August, 2008 and the January 5, 2009 Supplemental Letter Report, Flowers Water Right Project 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 (Jablonowski, 1995). 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. Any future project-related activities or developments at the locations of either of the above listed sites may be allowed only if an archaeologist that has been approved by the*

*California Historical Information System to work in the area, and that is acceptable to the Deputy Director for Water Rights is retained to determine the significance of the sites. If mitigation is determined to be necessary, then the archeologist 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. Licensee shall be responsible for all costs associated with the cultural resource related work.*

There is also the possibility that subsurface archeological deposits or human remains could be present and accidental discovery could occur through vineyard operation and maintenance activities. As such, the following permit terms, substantially as follows, shall be included in any water right permit or license issued pursuant to Application 31373:

- Should any buried archeological materials be uncovered during project activities, such activities shall cease within 100 feet of the find. Prehistoric archeological 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 archeologist shall be retained by the Permittee 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.*
- If human remains are encountered, then the Permittee 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 Sonoma 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.*

#### Findings

The proposed project could result in potentially significant impacts to cultural resources. However, with implementation of the identified permit terms (above), potential impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**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?
- 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"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sonoma County has various types of parklands, including State, County, Regional, and neighborhood parks. Recreational opportunities include fishing, camping, swimming, hiking, walking, horseback riding, and bicycling.

*Questions A and B*

Approval of the project would result in no new construction and the continued agricultural use of the project site. No new demand would be generated for the use of existing neighborhood and regional parks or other recreational activities. The project does not include recreational facilities, nor require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

*Findings*

No recreational impacts would occur as a result of the project.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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### 17. Mandatory Findings of Significance

- |  |                          |                                     |                                     |                          |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| 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 type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

#### Questions A-C

As discussed in the preceding sections, the project has a potential to degrade the quality of the environment by adversely impacting air quality and GHG emissions, biological resources, agricultural and forestry resources, and cultural resources. However, with implementation of the identified permit terms, potential impacts would be reduced to a less than significant level. The project has a potential to result in adverse environmental impacts. These 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 permit terms, the project would avoid or minimize potential impacts and would not result in cumulatively considerable environmental impacts. No potentially significant adverse affects 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.

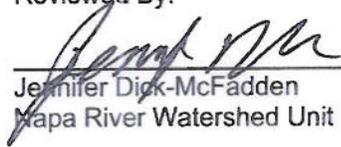
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that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

Prepared By:

  
David Zweig  
Analytical Environmental Services

4-4-11  
Date

Reviewed By:

  
Jennifer Dick-McFadden  
Mapa River Watershed Unit

4-15-11  
Date

Reviewed By:

  
Katy Washburn, Manager  
Russian River Watershed Unit

4/15/11  
Date

Reviewed By:

  
Phil Crader, Manager  
Permitting and Licensing Section  
Division of Water Rights

4/25/11  
Date

(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).

On this date, the undersigned...

1. The undersigned hereby certifies that the information...

2. The undersigned hereby certifies that the information...

3. The undersigned hereby certifies that the information...

4. The undersigned hereby certifies that the information...

5. The undersigned hereby certifies that the information...

6. The undersigned hereby certifies that the information...

7. The undersigned hereby certifies that the information...

8. The undersigned hereby certifies that the information...

9. The undersigned hereby certifies that the information...

10. The undersigned hereby certifies that the information...

11-11-11  
 \_\_\_\_\_  
 Date

#### IV. INFORMATION SOURCES

- <sup>1</sup> Application 31373 to Appropriate Water, 2002. In *File for Application 31373*, Division of Water Rights, State Water Resources Control Board.
- <sup>2</sup> Ibid.
- <sup>3</sup> Western Regional Climate Center (WRCC), 2007. Western Regional Climate Center database for Skaggs Springs Las Loma, California. Western Regional Climate Center, Reno, Nevada. Available: < <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca8272>>. Accessed September 23, 2009.
- <sup>4</sup> National Resources Conservation Service. 2007. *Welcome to Web Soil Survey*. Last revised: June 20, 2007. Available: < <http://websoilsurvey.nrcs.usda.gov/app/>>. Accessed: February 2007.
- <sup>5</sup> State of California, Department of Conservation. 2007. *Index to Earthquake Fault Zone Maps, Figure 4B*. Last revised: 1997. Available: < [http://www.conservation.ca.gov/cgs/rghm/ap/Map\\_index/Pages/F4B.aspx](http://www.conservation.ca.gov/cgs/rghm/ap/Map_index/Pages/F4B.aspx)>. Accessed: February 2008.
- <sup>6</sup> Sonoma County, Permit Resource Management Department. 2007. *Index to the 1989 Sonoma County General Plan*. Last revised: August 2, 2006. Available: < <http://www.sonoma-county.org/prmd/docs/gp/index.htm>>. Accessed: February 2008.
- <sup>7</sup> Ibid: Figure PS-1a.
- <sup>8</sup> Ibid: Figure PS-1a.
- <sup>9</sup> California Air Resources Board. 2011. *Area Designations (Activities and Maps)*. Available online at: <http://www.arb.ca.gov/desig/desig.htm>. Accessed March 2011.
- <sup>10</sup> Ibid.
- <sup>11</sup> Ambient Air Quality Standards. California Air Resources Board. Available online at: <http://www.arb.ca.gov/aqs/aaqs2.pdf>.
- <sup>12</sup> Bay Area Air Quality Management District (BAAQMD), 2009. Draft CEQA Air Quality Guidelines, December 2009. Available online at: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft%20BAAQMD%20CEQA%20Guidelines\\_Dec%207%202009.ashx](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft%20BAAQMD%20CEQA%20Guidelines_Dec%207%202009.ashx).
- <sup>13</sup> Updated CEQA Guidelines. Planning and Research Division of the Bay Area Air Quality Management District. December 2010. Available online at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>
- <sup>14</sup> BAAQMD CEQA Guidelines, Assessing the Impacts of Projects and Plans. Prepared by the Planning and Research Division of the Bay Area Air Quality Management District. December 1999. Available: < [http://www.baaqmd.gov/pln/ceqa/ceqa\\_guide.pdf](http://www.baaqmd.gov/pln/ceqa/ceqa_guide.pdf)>.

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Accessed: March 2010.

- <sup>15</sup> Ibid.
- <sup>16</sup> Napa Valley Engineering, Inc., August 12, 2006. *Water Availability Analysis*, Appropriative Application 31373. Walter and Joan Flowers. Cazadero, CA.
- <sup>17</sup> California Environmental Protection Agency. 2003. *2006 CWA Section 303(d) List of Water Quality Limited Segments*. Last revised: 2006. Available:  
< [http://www.waterboards.ca.gov/tmdl/docs/303dlists2006/final/state\\_final303dlist.pdf](http://www.waterboards.ca.gov/tmdl/docs/303dlists2006/final/state_final303dlist.pdf) >. Accessed: February 2008.
- <sup>18</sup> Napa Valley Engineering, Inc., August 12, 2006. *Water Availability Analysis*, Appropriative Application 31373. Walter and Joan Flowers. Cazadero, CA.
- <sup>19</sup> Ibid.
- <sup>20</sup> Ibid.
- <sup>21</sup> Ibid.
- <sup>22</sup> Analytical Environmental Services, November 2007. Biological Resources Assessment. Flowers Vineyard Water Right Project.
- <sup>23</sup> California Department of Fish and Game. *Guidelines for Maintaining Instream Flows to Protect Fisheries Resources Downstream of Water Diversions in Mid-California Coastal Streams*. June 17, 2002.
- <sup>24</sup> *Flowers Vineyards Biological Resources Assessment*. Prepared by Analytical Environmental Services. November 2007. In *File for Application 31373*, Division of Water Rights, State Water Resources Control Board.
- <sup>25</sup> Holland, R. F., 1986. *Preliminary descriptions of the terrestrial natural communities of California*. State of California, The Resources Agency, Non-game Heritage Program, Department of Fish and Game, Sacramento, California. 156 pp.
- <sup>26</sup> Sawyer, J. O., and T. Keeler-Wolf, 1995. *A manual of California vegetation*. California Native Plant Society, Sacramento, California.
- <sup>27</sup> Ibid.
- <sup>28</sup> California Department of Fish and Game, 2003. RareFind 3 Version 3.0.5, California Natural Diversity Data Base. Sacramento, California. Database last updated 3/31/2007. Accessed: 7/5/2007.
- <sup>29</sup> Analytical Environmental Services, November 2007. Biological Resources Assessment. Flowers Vineyard Water Right Project.

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<sup>30</sup> US Fish and Wildlife Service. Species Information, Threatened and Endangered Plants and Animals. Available: < [http://sacramento.fws.gov/es/spp\\_lists/auto\\_list\\_form.cfm](http://sacramento.fws.gov/es/spp_lists/auto_list_form.cfm)>. Accessed: 7/5/2007.

California Department of Fish and Game, 2003. RareFind 3 Version 3.0.5, California Natural Diversity Data Base. Sacramento, California. Database last updated 3/31/2007. Accessed: 7/5/2007.

California Native Plant Society. *Inventory of Rare and Endangered Plants* (online edition, v6-05c). Sacramento, California. Available: < <http://www.cnps.org/inventory>>. Accessed: 7/5/2007.

<sup>31</sup> Hickman, J. C., 1993. *The Jepson Manual, Higher Plants of California*. University of California Press, Berkeley, California.

<sup>32</sup> California Department of Fish and Game, 2003. RareFind 3 Version 3.0.5, California Natural Diversity Data Base. Sacramento, California. Database last updated 3/31/2007. Accessed: 7/5/2007.

<sup>33</sup> Ibid.

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> Moyle, Peter B., 2002. *Inland Fishes of California*. University of California Press. Berkley, California.

<sup>38</sup> Ibid.

<sup>39</sup> CalFish. 2007. *Fish Maps*. NMFS, CDFG, Pacific States Marine Fisheries Commission, Caltans, Coastal Conservancy, California Dept. of Water Resources, and State of California Resources Agency. Available: < <http://www.calfish.org/DesktopDefault.aspx> >. Accessed: 7/3/2007.

<sup>40</sup> Ibid.

<sup>41</sup> Moyle, Peter B., 2002. *Inland Fishes of California*. University of California Press. Berkley, California.

<sup>42</sup> Ibid.

<sup>43</sup> CalFish. 2007. *Fish Maps*. NMFS, CDFG, Pacific States Marine Fisheries Commission, Caltans, Coastal Conservancy, California Dept. of Water Resources, and State of California Resources Agency. Available: < <http://www.calfish.org/DesktopDefault.aspx> >. Accessed: 7/3/2007.

