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

INITIAL STUDY /
MITIGATED NEGATIVE DECLARATION

I. BACKGROUND

PROJECT TITLE: Water Right Applications 30722 and 31434 of Donnelly Creek Vineyards LLC

APPLICANT: Donnelly Creek Vineyards, LLC
13989 Highway 128
Boonville, CA 95415

APPLICANT'S CONTACT PERSON: Nicholas F. Bonsignore, P.E.
Wagner & Bonsignore Consulting Civil Engineers
2151 River Plaza Drive, Suite 100
Sacramento, CA 95833-4133

GENERAL PLAN DESIGNATION: Agricultural Lands

ZONING: Agricultural District

Introduction

The Donnelly Creek Vineyards property (project site) is located approximately a quarter-mile north of Boonville in Mendocino County, California (Figure 1). The project site is within Township 13N, Range 14W of the “Boonville, CA” U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2).

Water right applications 30722 and 31434 were filed with the State Water Resources Control Board (State Water Board) Division of Water Rights (Division) on May 7, 1998, and June 2, 2003, respectively. Application 30722 proposes the diversion to storage and refill of 100 acre-feet per annum (afa). Application 31434 proposes direct diversion of 50 afa at a rate of one cubic foot per second (cfs). The combined amount of water diverted under both applications would not exceed 150 afa.
Figure 1
Regional Location
Figure 2
Site and Vicinity
Project Description

Application 30722 proposes to divert up to 100 afa to storage in two existing reservoirs (Figure 3; Tables 1 and 2). Water would be diverted from Point of Diversion (POD) 1 located on Anderson Creek tributary to the Navarro River, to storage in Reservoir 1, an existing offstream reservoir with a capacity of 30 acre-feet (af). POD 1 is a screened inlet in the right bank of Anderson Creek that diverts water by gravity through a 12-inch diameter pipe to an offset pump. Water would also be diverted to storage at POD 2, which is an existing onstream reservoir with a capacity of 6 af, located on an Unnamed Stream tributary to an Unnamed Stream thence Donelly Creek thence Anderson Creek thence the Navarro River. Water collected at POD 2 can also be transferred by gravity pipeline to Reservoir 1. Water would be diverted to storage from December 15 through March 31, and used for the irrigation and frost protection of 56.9 acres of vineyard (Table 3), including 50.9 acres of existing vineyard and 6 acres of proposed vineyard. Reservoir operation would involve an initial fill and possibly multiple refills depending upon the occurrence of frost in late March and the availability of water for refill.

Application 31434 proposes to directly divert a maximum of 50 afa, at a rate not to exceed one cfs from PODs 1 and 2. Water would be diverted from March 15 through March 31 for frost protection on the same POU as Application 30722.

<table>
<thead>
<tr>
<th>Application</th>
<th>Diversion</th>
<th>Diversion Amount (acre-feet)</th>
<th>Diversion Season</th>
<th>Purpose of Use</th>
<th>Place of Use (acres)</th>
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<tr>
<td>30722</td>
<td>Storage</td>
<td>100</td>
<td>December 15 to March 31</td>
<td>Irrigation and Frost Protection</td>
<td>56.9</td>
</tr>
<tr>
<td>31434</td>
<td>Direct</td>
<td>50</td>
<td>March 15 to March 31</td>
<td>Frost Protection</td>
<td></td>
</tr>
</tbody>
</table>

Total Combined Diversion: Not to Exceed 150 afa

<table>
<thead>
<tr>
<th>POD</th>
<th>Location</th>
<th>Within</th>
<th>Section</th>
<th>Township</th>
<th>Range</th>
<th>B &amp; M</th>
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<tbody>
<tr>
<td>1</td>
<td>Anderson Creek tributary to the Navarro River</td>
<td>NE ¼ of SE ¼</td>
<td>2</td>
<td>13N</td>
<td>14W</td>
<td>MD</td>
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<tr>
<td>2</td>
<td>Unnamed Stream tributary to an Unnamed Stream thence Donnelly Creek thence Anderson Creek</td>
<td>NW ¼ of SW ¼</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use Within</th>
<th>Section</th>
<th>Township</th>
<th>Range</th>
<th>B &amp; M</th>
<th>Acres</th>
<th>Existing</th>
</tr>
</thead>
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<td>13N</td>
<td>14W</td>
<td>MD</td>
<td>29.4</td>
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<td>26.7</td>
<td>24.1</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>0.7</td>
<td>0</td>
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<td>2</td>
<td></td>
<td></td>
<td></td>
<td>0.1</td>
<td>0</td>
</tr>
</tbody>
</table>

Total: 56.9 50.9
Donnelly Creek Vineyards Water Right Applications 30722 & 31434 / 203512

Figure 3
Project Components

LEGEND
- Property Boundary
- Point of Diversion
- Point of Interest
- Perennial Stream
- Intermittent Drainage
- Existing Reservoir
- Pipelines
- Proposed Place of Use (Developed)
- Proposed Place of Use (Undeveloped)

PROJECT BACKGROUND AND CEQA BASELINE

Pod 2 (Reservoir 2) was constructed in 1940, Reservoir 1 was constructed in 1990 and POD 1 was constructed in the early 1990s. Statements submitted under claim of riparian water use provide evidence that several other features of the diversion facility were present in the early 1990s, to include the offset pump associated with POD 1, a buried pipeline to transport water from POD 1 to Reservoir 1, and a buried pipeline to transport water from Reservoir 2 to Reservoir 1. Development of the 50.9 acres of existing vineyard were converted from orchard and other uses prior to submittal of Application 30722 (conversion commenced in 1991 and was completed in 1996). The water is currently diverted by riparian claim of riparian right for frost protection and irrigation of the existing vineyard areas.

Water Code section 1300 et seq. requires the Division to provide public notice of water right applications. Application 30722 was publicly noticed on June 9, 2000, and protests were received by ten parties including: California Department of Fish and Game (DFG), National Marine Fisheries Service (NMFS), Navarro Watershed Protection Association, Friends of the Navarro River, Phil Wasson, George Bergner, Mike Kuimelis, Daniel Myers, Bryant Whittaker, and the California Sportfishing Protection Alliance (CSPA). George Bergner’s protest was withdrawn, and the protests of Phil Wasson and Bryant Whittaker were dismissed. The remaining protests remain unresolved. Application 31434 was publicly noticed on November 11, 2003, and protests were received by four parties including: Friends of the Navarro River, DFG, NMFS, and Julio and Lorena Solano; all protests remain unresolved.

The California Environmental Quality Act (CEQA) baseline for this project is May 7, 1998, which is the date Application 30722 was filed with the Division and the date the Division began its environmental review. Figure 4 shows the project site in 1993, approximately five years before the CEQA baseline date. Based on Figure 4 and the project history, aspects of the project that are part of the CEQA baseline include the 50.9 acres of existing vineyard, Reservoir 1, POD 1 and associated pipeline, and POD 2 (Reservoir 2). The conversion of six acres to vineyard and the diversion and use of 150 afa of water will be evaluated under CEQA. The diversion of up to 150 afa of water was evaluated in the Water Availability Analysis prepared for the proposed project along with other pending applications in the Anderson Creek watershed, and will be discussed in this CEQA document. Table 4 provides an overview of project features in relation to the CEQA baseline date.

<table>
<thead>
<tr>
<th>CEQA Baseline</th>
<th>CEQA Baseline Date</th>
<th>Potential Impacts</th>
</tr>
</thead>
</table>
| 50.9 acres of existing vineyard  
Reservoir 1  
POD 1 and the associated pipeline  
Dam and Reservoir 2 (POD 2)  
Diversion, storage, and use of water for irrigation and frost protection of 50.9 acres of vineyard; amounts not measured. | May 7, 1998 | 6 acres of proposed vineyard  
Diversion and use of up to 150 afa |
ANDERSON CREEK
DONNELLY CREEK

Donnelly Creek Vineyards Water Right Applications 30722 & 31434 / 203512

Figure 4
1993 Aerial


LEGEND
- Property Boundary
- Perennial Stream
- Intermittent Drainage
- Existing Reservoir
- Proposed Place of Use (Developed)
- Proposed Place of Use (Undeveloped)
- Point of Diversion

0 150 300 Feet
**ENVIRONMENTAL SETTING**

Elevation at the project site is approximately 400 feet above mean sea level (msl). The project site is located in the North Coast Ranges region of the California Floristic Province on the border between the Outer North Coast Range and Inner North Coast Range subregions, within the California Coast Range geomorphic province. The Outer North Coast Range generally has high rainfall and is dominated by forest habitat. The Inner North Coast Range has relatively low rainfall and typical vegetation communities include chaparral and pine or oak woodlands.

Characteristic vegetation communities occurring in the region include vineyard, annual grassland, California bay forest, oak woodland, mixed evergreen forest, and riparian woodland. Aquatic habitats in the region include the Navarro River and tributary perennial drainages, seasonal drainages, seasonal wetlands, wetland swales, and man-made reservoirs. The project site includes oak woodland, riparian forest, grassland, and palustrine emergent wetland habitats. Anderson Creek, a perennial stream, flows along the west boundary of the property and Donnelly Creek, an intermittent drainage, flows north of the project site and transects the northwest corner of the project site.

The climate in the area is relatively mild, a result of being moderated by the Pacific Ocean. The nearest location having reliable long-term temperature data is the Ukiah station, located approximately 15 miles northeast of the project site. The average low temperature in the winter at the Ukiah station is 36.4 degrees Fahrenheit, while the average high temperature in the summer is 90.0 degrees Fahrenheit. The average annual precipitation in Boonville is approximately 44 inches.

The project site is located within the Navarro River watershed, which has been used for timber production, livestock grazing, and other agricultural activities since the mid-1800’s. The Navarro River is considered by the U.S. Environmental Protection Agency (EPA) to be impaired by effects of excessive sediment and high temperatures. Historically, the Navarro River watershed was considered to have abundant high quality anadromous fish habitat supporting a productive coho salmon and steelhead trout fishery. The sustainability of anadromous fishes in the Navarro River watershed depends upon a variety of factors including habitat conditions, water temperature, gravel substrate, water quality, migration corridors, and habitat availability.

**Regulatory Environment**

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

- U.S. Army Corps of Engineers (USACE) – Clean Water Act (CWA) Section 404 Compliance
- 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 (Regional Water Board) – Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements
II. ENVIRONMENTAL IMPACTS

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

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

1. Geology and Soils. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
   i) Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines & Geology Special Publication 42.
   ii) Strong seismic ground shaking?
   iii) Seismic-related ground failure, including liquefaction?
   iv) Landslides?

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

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

d) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater?

Mendocino County is located within the California Coast Range geomorphic province. The predominant geologic unit in this area is the Franciscan assemblage, which is highly fractured and deformed by folding, faulting, and metamorphism. This province is one of the more geologically and seismically active portions of the State of California.

According to the Mendocino County Soil Survey, which covers the western portion of the County, the project site contains the following soils and respective characteristics:
Boontling loam, 2 to 9 percent slopes (109) This soil is found on stream terraces, and is somewhat poorly drained with high surface water runoff and a slight erosion hazard.

Feliz loam, 0 to 5 percent slopes (140) This soil is found on stream terraces, and is well drained with low surface water runoff and a slight erosion hazard.

Pinole loam, 2 to 9 percent slopes (193) This soil is found on stream terraces, and is well drained with high surface water runoff and a slight erosion hazard.

Riverwash (197) This soil is found in channels. Therefore, it is characteristic of the hydrology of the particular stream/drainage it is found in.

Yorkville-Squawrock-Witherell complex, 15 to 30 percent slopes (242) This soil is found on hills and mountains, and is moderately well drained with high to very high surface water runoff and a moderate erosion hazard.

The San Andreas Fault poses the most serious hazard in Mendocino County from fault rupture along its trace and its potential to generate severe ground shaking throughout many portions of the County. This fault line is capable of an estimated Magnitude 8.3 earthquake. The recently discovered Maacama Fault may pose a hazard to Mendocino County as serious as the San Andreas Fault because of its location along populated centers from Ukiah to Willits. Estimates of the Maacama Fault's earthquake capability range from a low of Magnitude 6.5 to a high of 8.1\(^{10}\). The project site is located in close proximity to the Maacama Fault. The project site is not located within an Alquist-Priolo Earthquake Fault Rupture Hazard Zone\(^{11}\). There are numerous inactive faults throughout the Franciscan Assemblage rocks. Inactive faults typically present no particular geologic or seismic hazards, except for weakened nature of rocks located along these inactive fault traces\(^{12}\).

Landslides are extremely common in the hills of Mendocino County. While some landslides have resulted from earthquakes, they primarily result from the saturation of the steep unstable slopes of the Franciscan Assemblage. Landslides should be considered a factor in any hillside grading or development where slopes are 20 percent or greater. The proposed project is located in an area designated as medium hazard potential for landslides\(^{13}\).

Liquefaction can also increase damage from groundshaking. However, the proposed project is located in an area designated as low hazard potential for liquefaction\(^{14}\).

**Question A**

The project site is not located within an Alquist-Priolo Earthquake Fault Rupture Hazard Zone, but could be affected by groundshaking from local active faults. The proposed project involves the diversion of a maximum of 150 afa of water and the use of this water on 50.9 acres of existing vineyard and six acres of proposed vineyard. The proposed project does not include features that would place people or structures at risk from the effects of groundshaking or landslide hazards. The proposed project would not alter the project site in a manner that would increase landsliding hazards. Impacts from geologic hazards such as landslides or ground failures would be less than significant.
Question B
The proposed project includes the conversion of six acres to vineyard. Development of this area would involve ground disturbing and earth moving activities. Soil types where the six acres is proposed are characterized by a low to moderate erosion hazard on slight to moderately sloping terrain. Therefore, construction activities would result in temporarily soil disturbance and potentially soil erosion. During operation of the proposed project water would be transported using existing pumps and pipelines, and drip lines for irrigation. The proposed project would have a maximum application rate (irrigation and frost protection) of slightly more than 2.6 af per acre (150 af / 56.9 acres). Substantial erosion, runoff, or loss of topsoil is not expected to occur in areas with slightly sloping terrain. In areas of moderately sloping terrain a greater erosion hazard is present; however, the potential for erosion would be limited by the use of drip lines for irrigation, because the drip system would limit the area of saturation to the roots of the vines.

In order to minimize potential erosion impacts from construction activities, Best Management Practices (BMPs) for any disturbed areas should include, but not be limited to the following measures:

- Vegetation removal shall be limited to the minimum amount necessary to accommodate the proposed project. A permanent winter cover crop shall be established in the new 6-acre vineyard. Until such time as the permanent cover crop is established, a temporary vegetation or other erosion control measures sufficient to stabilize the soil shall be established on all disturbed areas. New plantings shall be protected by using such measures as jute netting, straw mulching and fertilizing, as necessary;
- Temporary erosion control measures, such as silt fences, staked straw bales, and temporary revegetation, shall be installed in disturbed areas;
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months; and
- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures.
- During ongoing vineyard operations throughout the place of use, earth moving activities within 100 feet of any drainage shall only occur between May 15 and October 15 to minimize the potential for rainfall events to mobilize and transport sediment to aquatic resources.

The Applicant already implements BMPs onsite based on the Fish Friendly Farming program; Donnelly Creek Vineyards received a provisional certification because the water rights for the property are pending. To prevent substantial erosion from construction activities and ongoing operation of the place of use, the following permit term, substantially as follows, shall be included in any water right permits or licenses issued pursuant to Applications 30722 and 31434.

- Prior to disturbance of the portion of the place of use named in this permit that does not exist as of the date of this permit, Permittee shall submit an erosion control plan for approval by the Deputy Director for Water Rights. Said plan shall include measures to prevent sediment from leaving the construction area and entering waters of the State before, during, and after construction.
Within six months of the date of this permit, an erosion control plan shall be submitted to and approved by the Deputy Director for Water Rights. Said plan shall include measures to prevent sediment from leaving the place of use and entering waters of the State. Permittee shall provide the Division of Water Rights with evidence that substantiates that the erosion control measures contained in the plan are functioning properly every five years after installation as an enclosure to the current annual report or whenever requested by the Division of Water Rights.

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

Implementation of the BMPs and the above permit term will reduce soil erosion resulting from the project to a less than significant level.

Question C
The project site is located in an area designated with a medium potential for landsliding and low potential for liquefaction. The proposed project would include the conversion of six acres to vineyard. This development would involve minor ground disturbing and earth moving activities, but would not alter the geology and soils in a manner that would increase the potential for landsliding, lateral spreading, subsidence, liquefaction or collapse. This is considered a less than significant impact.

Questions D and E
The proposed project does not include features that would place people or structures at risk to expansive soils. No septic tanks or wastewater disposal systems are proposed as part of the project. No impact would occur.

Findings
After the implementation of the permit term provided above, impacts to geology and soils as a result of the proposed project are considered less than significant with mitigation measures incorporated.
### 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:

<table>
<thead>
<tr>
<th></th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
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<td>a)</td>
<td>Conflict with or obstruct implementation of the applicable air quality plan?</td>
<td>☐</td>
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<tr>
<td>b)</td>
<td>Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
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<td>c)</td>
<td>Expose sensitive receptors to substantial pollutant concentrations?</td>
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<td>☐</td>
<td>☑</td>
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<tr>
<td>d)</td>
<td>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)?</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
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<tr>
<td>e)</td>
<td>Create objectionable odors affecting a substantial number of people?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
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<tr>
<td>f)</td>
<td>Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?</td>
<td>☐</td>
<td>☑</td>
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<td>g)</td>
<td>Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
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</table>

Mendocino County is located within the North Coast Air Basin and is under the jurisdiction of the Mendocino County Air Quality Management District (MCAQMD). Air quality in the project 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. The climate of the region may be considered transitional, with climates varying from those found in the coastal and interior areas. The climate may be coastal in character part of the day, or week or month. The climate may also be dominated for various periods by air masses characteristic of the interior areas, including dry and warm summers.

### 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 six “criteria” air pollutants including respirable particulate matter (PM$_{10}$). Pursuant to the 1990 Clean Air Act Amendments (CAA), 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. Mendocino County is designated as either attainment or unclassified for all criteria air pollutants.

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. Mendocino County is designated as non-attainment for PM_{10}, and attainment or unclassified for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide and lead. Table 5 shows state standards for PM_{10}.

Respirable Particulate Matter (PM_{10})
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. The amount of particulate matter and PM_{10} generated is dependent on the soil type and the soil moisture content. Traffic generates particulate matter and PM_{10} emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. Other sources of PM_{10} include burning of wood in residential wood stoves and fireplaces and open agricultural burning.

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. While explicit GHG thresholds have not yet been established at the local level by the MCAQMD, the Mendocino County General Plan identifies energy-reducing policies that, once developed, will aim to lower overall carbon dioxide (CO_{2}) emissions in the county. A GHG reduction plan has not yet been developed for Mendocino County.

Questions A, B and D
Potential air quality impacts associated with the proposed project are limited to those resulting from short-term construction activities involved with the development of the six acres of vineyard. The proposed project in combination with other emissions in the region has the potential to result in a cumulatively considerable increase in PM_{10} emissions. Construction-related emissions could include exhaust from construction equipment and fugitive dust from land clearing, earthmoving, movement of vehicles, and wind erosion of exposed soil. In order to minimize potential air quality impacts during development of the undeveloped 6-acre place of use, an Emission Control Plan will be developed and implemented for the proposed project. At a minimum, the plan should include the following measures:

- Active construction areas shall be watered at least twice daily;
- All trucks hauling soil, sand, or other loose material shall be covered or required to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer);
- Exposed stockpiles shall be covered or watered twice daily;

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>SAAQS*</th>
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<tr>
<td>Respirable Particulate Matter</td>
<td>24 hour</td>
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</tr>
<tr>
<td></td>
<td>Annual</td>
<td>20 μg/m3</td>
</tr>
</tbody>
</table>

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

b ppm = parts per million by volume; μg/m3 = micrograms per cubic meter.
- All construction vehicles and equipment shall be properly maintained and operated, and the use of construction equipment that meets the current emission standards for diesel engine-powered equipment shall be required; and
- Traffic speeds on unpaved access roads shall be limited to 15 miles per hour.

To protect air quality and the health of construction workers, a permit term, substantially as follows, will be included in any water right permits or licenses issued pursuant to Applications 30722 and 31434:

- Prior to disturbance of the portion of the place of use named in this permit that does not exist as of the date of this permit, an emission control plan shall be submitted to and approved by the Deputy Director for Water Rights. Said plan shall include measures to reduce construction-related emissions for the purpose of minimizing air quality impacts during construction.

After the implementation of the measures contained in the Emission Control Plan, potential impacts to air quality and human health are considered less than significant level with mitigation incorporated.

Questions C and E
Application of agricultural chemicals during vineyard operation, such as sulfur products, has the potential to result in objectionable odors; however, the project includes agricultural activities within an area zoned for agricultural use. Sensitive receptors in the vicinity of the project site, including an elementary school located approximately a mile and half away from the project site, would not be exposed to substantial pollution concentrations from the proposed project. Compliance with permit regulations from the Agricultural Commissioner’s Office for the use of soil stabilizers, pesticides, herbicides, and other regulated chemicals would minimize the potential for emission of objectionable odors. This is considered a less than significant impact.

Questions F
The proposed project includes the proposed conversion of six acres of land into vineyard. Construction and operational sources of GHG emissions include equipment use, vehicle travel, energy use, and water transport. With implementation of the emissions mitigation discussed above, no significant GHG emissions would occur.

Question G
Vineyard would be developed in grassland areas so no sequestration loss from tree removal would occur. The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Findings
After the implementation of the permit term outlined above, impacts to air quality and GHG emissions as a result of the proposed project are considered less than significant with mitigation incorporated.
3. Hydrology and Water Quality. Would the project:

<table>
<thead>
<tr>
<th></th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Violate any water quality standards or waste discharge requirements?</td>
<td>☐</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td>b)</td>
<td>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)?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td>c)</td>
<td>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:</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>i) result in flooding on- or off-site</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>ii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater discharge</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>iii) provide substantial additional sources of polluted runoff</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>iv) result in substantial erosion or siltation on- or off-site?</td>
<td>☐</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td>d)</td>
<td>Otherwise substantially degrade water quality?</td>
<td>☐</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td>e)</td>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td>f)</td>
<td>Expose people or structures to a significant risk of loss, injury, or death involving flooding:</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>i) as a result of the failure of a dam or levee?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>ii) from inundation by seiche, tsunami, or mudflow?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td>g)</td>
<td>Would the change in the water volume and/or the pattern of seasonal flows in the affected watercourse result in:</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>i) a significant cumulative reduction in the water supply downstream of the diversion?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>ii) a significant reduction in water supply, either on an annual or seasonal basis, to senior water right holders downstream of the diversion?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>iii) a significant reduction in the available aquatic habitat or riparian habitat for native species of plants and animals?</td>
<td>☐</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>iv) a significant change in seasonal water temperatures due to changes in the patterns of water flow in the stream?</td>
<td>☐</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>v) a substantial increase or threat from invasive, non-native plants and wildlife</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
</tbody>
</table>

The Navarro River watershed drains an area of about 315 square miles. The Navarro River watershed can be divided into five subwatersheds, of which the project site is located within the Anderson Creek subwatershed. Anderson Creek flows along the western boundary of the project site, and Donelly Creek, a tributary of Anderson Creek, transects the northwest corner of
the project site flowing into Anderson Creek. Portions of the project site adjacent to Anderson Creek are subject to flooding from 100-year storm events\textsuperscript{20}.

Tsunamis have caused major damage to Mendocino County’s harbors and coastline in the past. A tsunami with a height of 23 feet has been predicted to occur once every 100 years along the Mendocino coast. The proposed project is located in an area designated as low tsunami hazard potential\textsuperscript{21}.

Questions A, C (iii and iv) and D

The Navarro River and its tributaries, including Anderson Creek, are listed on the State Water Board’s 303(d) list of impaired water bodies due to sedimentation and increased stream temperature. Sources of the impairment include: agriculture, hydro-modification, water diversion, and removal of riparian vegetation, among others. Construction activities could result in temporary soil disturbance, and irrigation of vineyard and stormwater runoff from vineyards has the potential to introduce sediment and agricultural chemicals into Anderson Creek. Water withdrawal has the potential to exacerbate temperature conditions by reducing the creek’s ability to assimilate heat\textsuperscript{22}. A Total Maximum Daily Load (TMDL) addressing the sediment and temperature impairment was established by the EPA in December 2000. The TMDL sets sediment load allocations for vineyard erosion equal to 11 tons/miles\textsuperscript{2}/year\textsuperscript{23}. According to the TMDL, this represents an 80 percent reduction in the historical sediment yield from vineyards throughout the Navarro River Watershed. The state water quality objectives pertinent to the Anderson Creek watershed that are related to temperature and sediment control are presented in Table 6.

### Table 6: Regional Water Board Water Quality Objectives for Sediment and Temperature Pertinent to the Anderson Creek Watershed\textsuperscript{24}

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Water Quality Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspended Material</td>
<td>Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.</td>
</tr>
<tr>
<td>Settlesable Material</td>
<td>Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affect beneficial uses.</td>
</tr>
<tr>
<td>Sediment</td>
<td>The suspended sediment load and suspended sediment discharge rate of surface water shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.</td>
</tr>
<tr>
<td>Turbidity</td>
<td>Turbidity shall not be increased more than 20 percent above naturally occurring background levels</td>
</tr>
<tr>
<td>Temperature</td>
<td>The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any cold freshwater habitat be increased by more than five degrees Fahrenheit above natural receiving water temperature.</td>
</tr>
</tbody>
</table>

Conversion of the proposed vineyard areas from grassland is not expected to result in an appreciable change in long-term sediment loading. Riparian forest habitat surrounds Anderson and Donnelly Creeks onsite (discussed further in the Biological Resources section). Riparian buffers can act to remove land derived solids by the following three primary mechanisms: (1) deposition of bedload material; (2) trapping suspended sediment in the litter layer; and (3) trapping suspended material that moves into the soil as a result of infiltration\textsuperscript{25}. A series of historical studies documenting the sediment removal effectiveness of riparian buffers was compiled in the report entitled “Protection of Riparian Ecosystems: A Review of Best Available Science” that was prepared by Jefferson County in Washington State\textsuperscript{26}. Sediment removal rates ranged from 50 to 98 percent for the 13 studies for which efficacy was reported as a...
percent removal rate. However, buffer widths for these studies ranged from five to 262 meters (16 to 829 feet). Nonetheless, the maintenance of minimum 100 foot stream setbacks from Anderson and Donnelly Creeks (discussed in the Biological Resources section) would significantly decrease potential sediment delivery and any runoff that may contain chemicals from the vineyard to the streams. A setback map depicting these setbacks is on file with the Division of Water Rights.

The Regional Water Board reports that temperature measurements from nine sites in Anderson Creek indicate that conditions are generally poor/unsuitable when compared to salmonid growth and survival metrics. The TMDLs source analysis indicates that shade and flow both affect temperature conditions in the Navarro River Watershed. Data and information presented by the Regional Water Board suggests that increased temperatures primarily occur spring through fall and temperatures peak during the summer months when streamflow is low and solar radiation is high. As part of the TMDL, the EPA established the following target for flow and temperature:

The quantity of flow diverted from the Navarro in the summer is not increased, unless it can be shown that such an increase does not adversely affect beneficial uses.

The proposed project would limit water diversions under appropriative rights to the period between December 15 and March 31, therefore impacts to summer water temperatures would not occur as a result of diversion. Temperature Load Allocations in the TMDL are expressed as effective shade curves. The maintenance of streamside buffers will prevent impacts to the existing riparian corridor, which in turn will maintain and enhance stream shading.

Permit terms will be added to any permits issued pursuant Applications 30722 and 31434 requiring the Applicant to 1) obtain a waste discharge requirement (if required by the Regional Water Board); 2) prevent sediment from entering any watercourses; and 3) comply with a December 15 through March 31 season of diversion (refer to Question G of this section).

To protect water quality, in addition to the terms and BMPs outlined in the Geology and Soils section, the following permit term, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 30722 and 31434:

- In order to prevent degradation of the quality of water during and after construction of the project, prior to commencement of construction, permittee shall file a report pursuant to Water Code section 13260 and shall comply with all waste discharge requirements imposed by the Regional Water Quality Control Board, North Coast Region, or by the State Water Board.

The above term would reduce potential impacts to a less than significant level.

**Question B**

The proposed project does not involve the use of groundwater resources. Conversion of six acres of grassland to vineyard would slightly alter the current land use from planting vine rows; effects to groundwater recharge would be minimal, if any at all. The irrigation of vineyard areas with appropriated water would be expected to slightly increase the amount of water potentially percolating to groundwater. This is considered a less than significant impact.

**Question C (i and ii)**

The proposed project does not include features that would result in flooding on- or off-site and
would not contribute polluted runoff water that would exceed the capacity of existing or planned stormwater drainage systems. Potential impacts are considered less than significant.

**Question E**
The proposed project does not involve the construction of housing or other structures within the 100-year flood zone. No impact would occur.

**Question F**
Reservoir 1 is located offstream and onstream Reservoir 2 is not subject to jurisdiction of the Division of Safety of Dams as the capacity of the reservoir is less than 50 af and the dam height is less than 25 feet. Failure of the dam could result in localized flooding within or near the drainage channel; however, the proposed project does not involve the development of housing or other structures. Additionally, the proposed project would not result in any inundation due to a tsunami or a seiche since the project site is not located within a potentially affected coastal area, or located near a large body of water. The proposed project is not located within an area associated with hazardous mudflow events. Potential impacts are considered less than significant.

**Question G**
A Water Availability Analysis (WAA) and Cumulative Flow Impairment Index (CFII) was developed in accordance with Division requirements and the Draft Guidelines for Maintaining Instream Flows to Protect Fisheries Resources Downstream of Water Diversions in Mid-California Coastal Streams (Draft Guidelines). The purpose of the WAA is to evaluate the availability of water to satisfy these water right applications and to investigate potential changes in streamflows attributable to diversions. Consistent with the requirements of the Draft Guidelines, a calculation of CFII for points of interest (POIs) throughout the Navarro River and Anderson Creek watersheds was completed. Results of the CFII showed that impairment at each POI was less than five percent. According to the Draft Guidelines, if the CFII at a POI is less than five percent, it is considered that no appreciable diminishment of unimpaired flows would occur and “there is little chance of significant cumulative impacts due to the diversion and the project does not require additional studies to assess these impacts”, provided that other provisions of the Draft Guidelines are adhered to (i.e., limited season of diversion, implementation of a February median flow (FMF) bypass), which are discussed below.

The proposed project was further analyzed as part of the Revised WAA, for Anderson Creek Watershed, Mendocino County, Dated July 11, 2008. This analysis was prepared for several pending water right applications in the Anderson Creek watershed, including applications 30722 and 31434. A letter from the Division dated September 16, 2008 found the methodology and mechanics of the hydrology model acceptable and appropriate. The purpose of the WAA is to evaluate the availability of water to satisfy these water right applications and to investigate potential changes in streamflows attributable to diversions. The analysis includes all existing and proposed water rights records upstream of the confluence of Con Creek and Anderson Creek. This watershed area encompasses all the applications for which this report was prepared. Any impacts to streamflows below the confluence of Anderson Creek and Con Creek are considered to have been addressed by the NVVE CFII study.

The WAA for the Anderson Creek watershed considers the POIs in the Boonville area named in the May 1, 2006 Division letter, as well as an additional POI (51) located on Donelly Creek immediately upstream of its confluence with Anderson Creek. A complete list of the other 47 POIs included in this study can be found in the May 1, 2006 letter, which is on file with the Division. POD 2 of Applications 30722 and 31434 is associated with POI 40, which is a point on
an Unnamed Stream immediately below this POD. POI 39 can also be used as an indicator of effects to streamflow from diversion at POD 2 under the proposed project, since it is located on the same watercourse about 1,300 feet downstream of POI 40 and just upstream of the confluence with an Unnamed Stream that subsequently joins Donelly Creek. POD 1 of Applications 30722 and 31434 is associated with POI 21, which is a point on Anderson Creek immediately below this POD.

To evaluate water availability the unimpaired and impaired streamflows were estimated at each POI and illustrated on hydrographs. Unimpaired streamflow considers the amount of water that would be available without any diversions. Impaired streamflow considers the amount of water available after all existing and proposed diversions in the watershed. Streamflows at each POI were estimated from flows recorded by nearby historical stream gages and adjustment factors based on the local hydrology. Thus, the impaired streamflow at a particular POI considers all water diversions upstream of that point, and local hydrologic conditions. To calculate streamflows a simulation model with a daily time step was built. Diversions were simulated for the period of October 1 through May 31, which encompasses all storage rights and anticipated direct diversions for frost protection and refills for frost protection and irrigation. The simulation model was then applied to selected years from a 55-year span (record of Navarro River gage flows). The years included in the analysis were selected based on characteristics which identify the year as wet, dry or normal in regards to precipitation. The CFII values for POIs 21, 39, and 40 relative to Donelly Creek Vineyards were above ten percent; according to the Draft Guidelines, if the CFII value at a POI is above ten percent additional studies are warranted to assess potential cumulative impacts of the proposed diversion. The CFII value at POI 51, downstream of POI 21, where fish may be seasonally present is 2.7, below the five percent threshold noted above.

One normal year (1954 – Figure 5 for POI 40 and Figure 6 for POI 39) and one dry year (1972 – Figure 7 for POI 21) were selected for production of hydrographs showing estimated unimpaired and impaired streamflows. These years were selected because they represent the mid-range of the years classified as normal and dry and have a typically shaped hydrograph. Typically shaped hydrographs exhibit a pattern of runoff similar to the long-term average hydrograph (average of 55-years of gage data), which shows the greatest runoff in January, the second greatest in February, and third greatest in March.

The hydrograph for the normal year scenario at POI 40 shows that measurable streamflows occur during only a few months, with rates less than 0.5 cfs during all but a few days. This results in a lack of flows available during a portion of the diversion season. However, at POI 39, located approximately 1,300 feet downstream from POI 40, impaired flows only slightly depart from unimpaired flows with the greatest difference occurring during maximum peak flows. While streamflow at POI 39 is not substantially larger than POI 40, the magnitude is significant enough to provide streamflow throughout almost the entire diversion season. Trends for impaired and unimpaired flows during the dry year scenario at POIs 39 and 40 are similar to the normal year scenario, but with smaller magnitudes of flow. The hydrograph for the dry year scenario at POI 21 shows that impaired and unimpaired streamflows are almost undistinguishable. In addition, there is a large magnitude of streamflow available at this location. The hydrograph at POI 21 for the normal scenario is similar to the dry scenario, but streamflow is of a greater magnitude. These results indicate that an adequate amount of water supply would be available at the PODs for most of the diversion season, and the proposed project along with all other diversions considered in the WAA would not affect streamflow downstream or supply available to any senior water right holders.
It should be noted that the WAA is conservative since it assumes that the face value of the proposed diversions will be made every year, which is a very unlikely condition. Many vineyard owners do not use the full amount of their stored water each and every year. Typically, some water is carried over in storage from one year to the next. This means that in the ensuing water year the full face value amount will not need to be diverted to fill the reservoirs. In addition, project reductions were requested after the preparation of the WAA. Thus, actual impacts on streamflows could be considerably less than those discussed.

In determining the amount of water available for diversion, the amount of water required to maintain instream beneficial uses such as fish and wildlife resources are considered. Calfish.org, a California cooperative anadromous fish and habitat data program, compiles relevant data from multiple agencies including, but not limited to DFG, USFWS, and the Department of Water Resources. A search of the Calfish.org database, performed on January 10, 2011 indicated that the entire extent of Anderson Creek in the Anderson Valley is open to anadromous fish. In addition, a report of fisheries habitat findings prepared by Mark Jennings of Rana Resources includes the delineation of the extent of streams in the Anderson Valley area that are open to anadromous fish, as well as the location of impassable barriers. The report concurs that the entire extent of Anderson Creek in the Anderson Valley is open to anadromous fish. The report also indicates that the Unnamed Stream to which the unnamed stream that POD 2 is located upon is tributary, is open to anadromous fish.

The Draft Guidelines provide an outline for preserving a level of flow that ensures that anadromous salmonids will not be adversely impacted by diversions. According to the Draft Guidelines, for new diversions in mid-California watersheds that are, or contribute flows to, anadromous streams, a minimum bypass equivalent to the FMF and a diversion season of December 15 through March 31 must be maintained. At POD 1 (POI 21) the FMF is estimated to be 37.17 cfs as shown in Figure 7. While impaired flow would not significantly differ from unimpaired flows under the dry year scenario at POI 21, flows are not always above the FMF during the diversion season (Figure 7). These results indicate that the proposed project may not be able to divert the full application amount in order to maintain the FMF.

No bypass is proposed for POD 2 (POI 40) because of the small size of the watershed associated with this point. However, the dam at Reservoir 2 leaks, which provides a perennial source of water below the dam. An existing 24-inch diameter buried corrugated polyethylene pipe intercepts runoff approximately 300 feet downstream of the Reservoir 2 dam. Water flows about 300 feet through the pipe to the northern property boundary, at which point it connects to another 24-inch diameter pipe that runs under the neighboring vineyard and discharges into an unnamed Stream that is tributary to Donelly Creek. There are no plans to alter the configuration of the pipe and it was agreed at an agency field visit that this design would be more beneficial to improve flows in the Unnamed Stream and Donelly Creek as opposed to removing the pipe. A further assessment of the project’s potential impacts to biological resources is provided in the Biological Resources section below.
Figure 5
POI 40 (Unnamed Stream at POD 2) Normal Year Hydrograph

SOURCE: Wagner & Bonsignore, 2008; AES, 2012

Donnelly Creek Vineyards Water Right Applications 30722 & 31434 / 203512
Figure 17
Anderson Creek Watershed - Water Availability Analysis

Estimated Flows at POI #39

Normal Water Year

SOURCE: Wagner & Bonsignore, 2008; AES, 2012

POI 39 (Unnamed Stream Downstream of POD 2) Normal Year Hydrograph
Figure 7

POI 21 (Anderson Creek at POD 1) Dry Year Hydrograph

SOURCE: Wagner & Bonsignore, 2008; AES, 2012
The Draft Guidelines generally recommend against the permitting of onstream reservoirs, but provide an exemption for allowing onstream reservoirs if three special circumstances are met. At an onsite agency field visit for the subject applications conducted on October 18, 2010, it was agreed that the project would be considered to meet the criteria for the exemption if it was operated such that water diverted at the onstream reservoir would be offset by reduced diversions from Anderson Creek to the offstream reservoir. The plan, as proposed, would allow the onstream reservoir to be filled and drained to the offstream reservoir up to three times during the diversion season for a total of 15 af.

To minimize the project’s potential to cause impacts to hydrology and water quality, the following permit terms, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 30722 and 31434:

- No water shall be diverted from POD 1 under this permit unless the flow in Anderson Creek is at or above 37.17 cubic feet per second, as measured at POD 1.

- No water shall be diverted under this right unless right holder is operating in accordance with a compliance plan, satisfactory to the Deputy Director for Water Rights. Said compliance plan shall specify how right holder will comply with the terms and conditions of this right. Right holder shall comply with all reporting requirements in accordance with the schedule contained in the compliance plan.

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

<table>
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<tr>
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<th>No Impact</th>
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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 CDFG or USFWS?

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS?

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?

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?

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
Analytical Environmental Services (AES) biologists conducted a preliminary site reconnaissance and early-season floristic survey on May 4, 2004. AES biologists returned to the project site on June 11, 2007 and conducted a comprehensive biological and late-season floristic survey. The purposes of these surveys were to determine the presence/absence of special-status species within the project site, to classify the vegetation communities occurring onsite, and to assess the project site for the presence of other biologically sensitive features.

**Habitats Types**

Five vegetation communities were identified within the project site including: grassland, oak woodland, palustrine emergent wetland, riparian forest, and vineyard. The aquatic features identified within the project site include: two existing reservoirs, Anderson Creek (a perennial stream), Donelly Creek (an intermittent drainage), and palustrine emergent wetland. Vegetation communities and aquatic habitats are mapped in Figure 8. Selected photographs of these habitats and aquatic features are shown in Figures 9 and 10.

**Grassland**

Grassland habitat is scattered throughout the project site, primarily between the oak woodland and riparian forest habitats, and on either side of the vineyard. Non-native annual grasses and forbs characterize this habitat type. Several of the dominant species observed within this vegetation community include: rattlesnake grass (*Briza maxima*), tall fescue (*Festuca arundinacea*), vulpia (*Vulpia microstachys*), Italian rygrass (*Lolium multiflorum*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), medusahead grass (*Taeniatherum caput-medusae*), Harding grass (*Phalaris aquatica*), California poppy (*Eschscholzia californica*), winter vetch (*Vicia villosa*), wild radish (*Raphanus sativus*), and sticky monkeyflower (*Mimulus aurantiacus*). This community corresponds to Non-Native Grassland (42200) in the Holland system and California annual grassland series in Sawyer, Keeler-Wolf’s *A Manual of California Vegetation*.

**Oak Woodland**

Oak woodland habitat occurs on both the eastern and western portions of the project site. Oregon white oak (*Quercus garryana*), coast live oak (*Quercus agrifolia*), and California black oak (*Quercus kelloggii*) are the dominant species of oak within this vegetation community.
**PHOTO 1:**
View from atop the earthen dam of Reservoir 2.

**PHOTO 2:**
Palustrine emergent wetland community below Reservoir 2.

**PHOTO 3:**
Intermittent stream that flows into Reservoir 2.

**PHOTO 4:**
Reservoir 2 with the earthen dam that splits the property and reservoir.

**PHOTO 5:**
Drainage ditch and culvert that fill Reservoir 2.
PHOTO 6:
View of Reservoir 1 looking west.

PHOTO 7:
Point of diversion from Anderson Creek to fill Reservoir 1.

PHOTO 8:
View of Anderson Creek, near Point of Diversion 1.

PHOTO 9:
Point at which Reservoir 1 fills from Point of Diversion 1.

SOURCE: AES, 2004
Other tree species observed in this community include California bay (*Umbellularia californica*) and shrubby manzanita (*Arctostaphylos patula*). Understory species observed within this habitat include: milk thistle (*Silybum marianum*), hedgehog dog-tail grass (*Cynosurus echinatus*), poison oak (*Toxicodendron diversilobum*), miner’s lettuce (*Claytonia perfoliata* ssp. *perfoliata*), and Himalayan blackberry (*Rubus armeniacus* syn. *R. discolor*). This community corresponds to the Cismontane Woodland (71000) in the Holland system and the vegetation community type is Oregon white oak series.

**Palustrine Emergent Wetland**

The palustrine system is dominated by trees, shrubs, and persistent emergent vegetation. A single linear stretch of this habitat type occurs within the northeast corner of the project site. Plant species identified in this vegetation community include willows (*Salix* sp.), coyote brush (*Baccharis pilularis* ssp. *consanguinea*), pale rush (*Juncus patens*), hyssop loosestrife (*Lythrum hyssopifolium*), toad rush (*Juncus bufonius*), spikerush (*Eleocharis* sp.), and nutsedge (*Cyperus* sp.). This habitat type is also discussed under the Waters of the U.S. section below.

**Riparian Forest**

Riparian forest habitat surrounds the perennial stream and the intermittent drainage onsite. Plant species observed within this vegetation community include: horsetail (*Equisetum* sp.), poison hemlock (*Conium maculatum*), big leaf maple (*Acer macrophyllum*), willows (*Salix* sp.), hedge nettle (*Stachys ajugoides* var. *ajugoides*), pennyroyal (*Mentha pulegium*), California wild rose (*Rosa californica*), poison oak, Himalayan blackberry, blue elderberry (*Sambucus mexicana*), and Fremont’s cottonwood (*Populus fremontii*). This community corresponds to the Riparian Woodlands (62000) in the Holland system.

**Vineyard**

The vineyard onsite consists of a cultivated grape (*Vitis vinifera*) planted in rows, supported on wood and wire trellises. Annual and perennial weedy vegetation occurs between the vineyard rows. Understory species within the vineyard are permitted to persist and some species are often planted to protect, improve, and preserve the soil conditions. Several of the plant species observed between the rows of vines include rattlesnake grass, ripgut brome, curly dock (*Rumex crispus*), scarlet pimpernel (*Anagallis arvensis*), rose clover (*Trifolium hirtum*), and wild radish.

**Waters of the U.S.**

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

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands; or
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
  - Which are or could be used by interstate or foreign travelers for recreational or other purposes;
  - From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - Which are used or could be used for industrial purposes by industries in interstate commerce.
“Wetlands” are defined as:

Lands that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands that meet these criteria during only a portion of the growing season are classified as seasonal wetlands.

Two reservoirs, in addition to Anderson Creek, Donelly Creek, and one palustrine emergent wetland were informally mapped on the project site and have the potential to be considered jurisdictional waters of the U.S. and could be subject to USACE, EPA, and/or DFG regulation under Section 404 and 401 of the Clean Water Act and Section 1600 of the California Fish and Game Code, respectively. Project development activities such as infilling or dredging of jurisdictional water features could trigger these permits. A formal wetland delineation was not conducted on the project site for the aquatic features. Thus, the shapes, acreages, exact locations, and jurisdictional status of all potential waters of the U.S. depicted on the habitat map are approximate and intended for general project planning purposes only.

Wildlife
Wildlife observed during the field surveys includes: great blue heron (Ardea herodias), red-tailed hawk (Buteo jamaicensis), American crow (Corvus brachyrhynchos), American coot (Fulica americana), red-winged blackbird (Agelaius phoeniceus), an unidentified hummingbird, western fence lizard (Sceloporus occidentalis), and bullfrogs (Rana catesbeiana).

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

- Listed as endangered, threatened, or candidate for listing under FESA;
- Listed as endangered, threatened, rare, or proposed for listing, under CESA;
- Designated as endangered or rare, pursuant to California Fish and Game Code (Section 1901);
- Designated as fully protected, pursuant to California Fish and Game Code (Section 3511, Section 4700, or Section 5050);
- Designated as species of special concern by DFG;
- Plants or animals that meet the definitions of rare or endangered under CEQA;
- Plants listed as rare under the California Native Plant Protection Act; or
- Plants considered by the California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California” (Lists 1B and 2).

A list of regionally occurring special-status plant and animal species was compiled based on a review of pertinent literature; a USFWS database query for federally listed species with the potential to occur within the “Boonville, CA” and “Philo, CA” 7.5-minute USGS topographic quadrangles; the results of a California Natural Diversity Database (CNDDB) query of all reported occurrences of special-status species within the “Boonville, CA” quadrangle and the following eight surrounding quadrangles: Bailey Ridge, Orrs Springs, Ukiah, Philo, Elledge Peak, Zeni Ridge, Orbaun Valley, and Yorkville; a query of the CNPS’ online inventory for special-status species known to occur within the “Boonville, CA” quadrangle and the eight surrounding quadrangles; and all records of special-status species occurrences within five miles of the project site. Habitat requirements for each special-status species were assessed and compared to the habitats occurring within the project site and surrounding areas.
Based upon the review of regionally occurring special-status species and their habitat requirements and the results of the field assessments, the subject property has potential to support six special-status plant species and seven special-status animal species. The name, regulatory status, habitat requirements, and period of identification for these potentially occurring special-status species are identified in Table 7 below.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Status</th>
<th>Habitat Requirements</th>
<th>Period of Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLANTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Astragalus agnicidus&lt;br&gt;Humboldt milk vetch</td>
<td>--/CE/1B</td>
<td>Broad-leaved upland forest and North Coast coniferous forest. Frequently disturbed and/or rocky areas, often road-cuts. Elevations: 180-800 meters.</td>
<td>April-August</td>
</tr>
<tr>
<td>Erigeron bioletti&lt;br&gt;streamside daisy</td>
<td>--/-3</td>
<td>Broadleaf upland forest, cismontane woodland, and North Coast coniferous forest in rocky, mesic areas; 30-1,100 meters elevation.</td>
<td>June-September</td>
</tr>
<tr>
<td>Erythronium revolutum&lt;br&gt;coast fawn lily</td>
<td>--/-2</td>
<td>Bogs and fens, broadleaf upland forest, and North Coast coniferous forest in mesic areas and streambanks; 0-1,065 meters elevation.</td>
<td>March-July-August</td>
</tr>
<tr>
<td>Fritillaria roderickii&lt;br&gt;syn. F. biflora var. biflora&lt;br&gt;Roderick's fritillary</td>
<td>--/CE/1B</td>
<td>Coastal bluff scrub, coastal prairie, and valley and foothill grassland; 15-400 meters elevation.</td>
<td>March-May</td>
</tr>
<tr>
<td>Hemizonia congesta ssp. leucocephala&lt;br&gt;hayfield tarplant</td>
<td>--/-3</td>
<td>Coastal scrub and valley and foothill grassland/sometimes roadsides; 25-455 meters elevation.</td>
<td>April-October</td>
</tr>
<tr>
<td>Pleuropogon hooverianus&lt;br&gt;North Coast semaphore grass</td>
<td>--/CT/1B</td>
<td>Broadleaf upland forest, meadows and seeps, and North Coast coniferous forest; 10-671 meters elevation.</td>
<td>April-August</td>
</tr>
<tr>
<td><strong>ANIMALS</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fish</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oncorhynchus mykiss&lt;br&gt;steelhead&lt;br&gt;Central California coast</td>
<td>FT/--</td>
<td>Spawning: streams with pool and riffle complexes. Successful breeding requires cold-water temperatures and gravelly steam beds.</td>
<td>Consult Agency</td>
</tr>
<tr>
<td>Oncorhynchus mykiss&lt;br&gt;steelhead&lt;br&gt;Northern California</td>
<td>FT/CSC/--</td>
<td>Cool, clear, fast-moving permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks.</td>
<td>Consult Agency</td>
</tr>
<tr>
<td>Amphibians</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rana boylii&lt;br&gt;foothill yellow-legged frog</td>
<td>--/CSC/--</td>
<td>Inhabits rocky streams in a variety of habitats including woodlands, riparian, coastal scrub, chaparral, and wet meadows. Rarely encountered far from permanent water sources.</td>
<td>March-May</td>
</tr>
<tr>
<td>Reptiles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actinemys marmorata marmorata&lt;br&gt;northwestern pond turtle</td>
<td>--/CSC/--</td>
<td>Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg laying. Nest sites most often characterized as having gentle slopes (&lt;15%) with little vegetation or sandy banks; 0-1,525 meters elevation.</td>
<td>March-October</td>
</tr>
<tr>
<td><strong>Scientific Name</strong></td>
<td><strong>Common Name</strong></td>
<td><strong>Status</strong></td>
<td><strong>Habitat Requirements</strong></td>
</tr>
<tr>
<td>------------------</td>
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<td>--------------------------</td>
</tr>
<tr>
<td>Accipiter gentilis</td>
<td>northern goshawk</td>
<td>--/CSC/--</td>
<td>Forages in wooded areas, generally coniferous forests with large snags and riparian habitats. Nests in mature, dense, coniferous forests near water.</td>
</tr>
<tr>
<td>Falco peregrinus anatum</td>
<td>American peregrine falcon</td>
<td>FD/CE/FP</td>
<td>Breeds near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, and mounds. Will also nest on human-made structures. Occurs mostly in woodland, forest, coastal habitats, riparian areas, and inland wetlands.</td>
</tr>
</tbody>
</table>

**STATUS CODES**

**FEDERAL:** U.S. Fish and Wildlife Service and Marine Fisheries Service
- FT Listed as Threatened by the Federal Government
- FD Federally Delisted

**STATE:** California Department of Fish and Game
- CE Listed as Endangered by the State of California
- CT Listed as Threatened by the State of California
- CSC California Species of Special Concern
- FP California Fully Protected Species

**CNPS:** California Native Plant Society
- List 1B Plants rare or endangered in California and elsewhere
- List 2 Plants rare or endangered in California, but more common elsewhere
- List 3 Plant about which more information is needed

**Special-Status Plants**
- Humboldt Milk Vetch (*Astragalus agnicidus*)
  - Federal Status – None
  - State Status – Endangered
  - Other – CNPS 1B

Humboldt milk vetch is a perennial herb in the Fabaceae family. This plant has pinnately compound leaves and white flowers. The calyx lobes of the flowers tend to be approximately three to five millimeters (mm) long. This species is noted for its reflexed, three sided, fruits, which typically are 11 to 15 mm long. It is known to occur in broadleaf upland and North Coast coniferous forests and frequents rocky areas such as road cuts. Humboldt milk vetch occurs at elevations ranging from 180 to 800 meters and it blooms from April through August. Humboldt milk vetch is known to occur within Mendocino, Napa, and Sonoma counties. The oak woodland and vineyard borders onsite provide suitable habitat for this species. No Humboldt milk vetch was observed on the project site during the 2004 or 2007 surveys, which were conducted during the bloom period for the species. The closest occurrence of this species is approximately 12 miles northwest of the project site.

- Streamside Daisy (*Erigeron bieolettii*)
  - Sunflower Family (Asteraceae)
  - Federal Status – None
  - State Status – None
  - Other – CNPS List 3
Streamside daisy is a perennial herb that occurs in broadleaf upland forest, cismontane woodland, and North Coast coniferous forest habitats within rocky or mesic areas at elevations that range from 30 to 1,100 meters above msl. This species blooms from June through September. The range of streamside daisy includes Humboldt, Mendocino, Marin, Napa, Solano, and Sonoma counties. This species is noted for having densely glandular phyllaries and herbage, narrowly oblanceolate leaves, and flat-topped discoid heads that are approximately 12 to 15 mm in diameter. This species is not documented within the CNDDB because it is not listed pursuant through the CEQA review process. However, other local and/or regional ordinances or constraints may consider this species. The oak woodland and riparian habitats onsite are suitable for this species. Streamside daisy was not observed within the project site during the June 2007 field survey, which was conducted during the bloom period for the species.

Coast Fawn Lily (*Erythronium revolutum*)
Lily Family (Liliaceae)
Federal Status – None
State Status – None
Other – CNPS List 2

Coast fawn lily is a bulbous perennial that occurs in bogs and fens, broadleaf upland forest, and North Coast coniferous forest habitats within mesic areas and along streambanks at elevations from zero to 1,065 meters above msl. This species blooms from March through July and occasionally through August. The range of coast fawn lily includes Del Norte, Humboldt, Mendocino, Siskiyou, Sonoma, Tehama, and Trinity counties. It also occurs in Oregon and Washington. This species is noted for having mottled leaves, filaments that are flattened at the base, and pink petals that are yellow at the base. The nearest documented occurrence of coast fawn lily is located approximately five miles northwest of the project site, within the “Philo, CA” quadrangle. Mesic areas within the oak woodland and riparian forest habitats onsite, the streambanks of Anderson and Donelly Creeks, and the palustrine emergent wetland are suitable for this species. Coast fawn lily was not observed within the project site during the May 2004 or June 2007 field surveys, which were conducted in during the bloom period for the species.

Roderick’s Fritillary (*Fritillaria roderickii*)
Synonymn (*F. biflora* var. *biflora*)
Lily Family (Liliaceae)
Federal Status – None
State Status – Endangered
Other – CNPS List 1B

Roderick’s fritillary is a bulbous perennial that occurs in coastal bluff scrub, coastal prairie, and valley and foothill grassland habitats at elevations that range from 15 to 400 meters above msl. This species blooms from March through May. The range of Roderick’s fritillary includes Mendocino and Sonoma counties. This species is noted for having prominent nectaries, distinctive dark brown to greenish/yellowish and purple petals, odorless flowers, and widely lanceolate to oblanceolate shaped leaves. The nearest documented occurrence of this species is located approximately 1.5 miles northwest of the project site, within the “Philo, CA”

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^DFG requires that all CNPS List 1B and 2 plant species be addressed for CEQA projects. Though it is not required for the CEQA review process, CNPS recommends that List 3 and List 4 plant species also be considered. AES considered CNPS List 3 and 4 species during this survey.
The grassland habitat onsite is suitable for this species. Roderick’s fritillary was not observed within the project site during the May 2004 field survey, which was conducted during the bloom period for the species.

Hayfield Tarplant (*Hemizonia congesta* ssp. *leucocephala*)
Sunflower Family (Asteraceae)
Federal Status – None
State Status – None
Other – CNPS List 3

Hayfield tarplant is an annual herb that occurs in coastal scrub and valley and foothill grassland, occasionally along roadsides, at elevations that range from 25 to 455 meters above msl. This species blooms from April through October. The range of hayfield tarplant includes Marin, Mendocino, and Sonoma counties. This species is noted because it has ray achenes that are beakless, white corollas, phyllary tips that are much greater than the phyllary bodies, and clustered, slightly overtopped heads. This species is not documented within the CNDDB because it is not listed pursuant through the CEQA review process. However, other local and/or regional ordinances or constraints may consider this species. The grassland habitat onsite is suitable for this species. Hayfield tarplant was not observed within the project site during the May 2004 or June 2007 surveys, which were conducted during the bloom period for the species.

North Coast Semaphore Grass (*Pleuropogon hooverianus*)
Grass Family (Poaceae)
Federal Status – None
State Status – Threatened
Other – CNPS List 1B

North Coast semaphore grass is a perennial that occurs in broadleaf upland forest, meadows and seeps, and North Coast coniferous forest habitats at elevations that range from ten to 671 meters above msl. This species blooms from April through August. The range of North Coast semaphore grass includes Marin, Mendocino, and Sonoma counties. This species is noted because the lemma on the lowest floret is approximately eight to ten mm long, it has an evident rhizome, its awns are one to four mm long, and its spikelets are ascending. The nearest documented occurrence of this species is located approximately eight miles northeast of the project site, within the “Elledge Peak, CA” quadrangle. The mixed oak woodland habitat onsite is suitable for this species. North Coast semaphore grass was not observed within the project site during the May 2004 or June 2007 surveys, which were conducted during the bloom period for the species.

**Special-Status Fish**
Steelhead (*Oncorhynchus mykiss*)
Central California Coast ESU
Federal Status – Threatened
State Status – None
Other – None

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8 DFG requires that all CNPS List 1B and 2 plant species be addressed for CEQA projects. Though it is not required for the CEQA review process, CNPS recommends that List 3 and List 4 plant species also be considered. AES considered CNPS List 3 and 4 species during this survey.
Steelhead are the anadromous form of rainbow trout. As such, this species hatches in freshwater, migrates to marine waters, and returns to freshwater habitats for spawning. Unlike other types of salmonoids, steelhead are capable of spawning more than once and not all of them die immediately after spawning. The Central California Coast ESU is a winter-run species, meaning that it has reached sexual maturity within the marine environment prior to the onset of the freshwater migration. Winter-run steelhead begin migrating between November and April and spawn shortly after they arrive in spawning habitats. Juveniles remain in the freshwater environment for one to two years. This species has an average lifespan of six to seven years. The range of the Central California Coast steelhead ESU includes all naturally spawned populations of steelhead in coastal streams from the Russian River to Aptos Creek, and the drainages of San Francisco, San Pablo, and Suisun Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers; and tributary streams to Suisun Marsh including Suisun Creek, Green Valley Creek, and an unnamed tributary to Cordelia Slough (often referred to as Red Top Creek), exclusive of the Sacramento-San Joaquin River Basin of the California Central Valley, and two additional artificial propagation programs. The range includes portions of Alameda, Contra Costa, Marin, Mendocino, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma counties. Critical habitat has been designated for Central California Coast steelhead ESU\textsuperscript{47}. The project site is not located within designated critical habitat for this species, as the critical habitat designation only includes the portions of the Russian River within Mendocino County. The project site is located west of the designated critical habitat territory. A recovery plan has not been completed for the Central California Coast steelhead ESU, though a final plan is forthcoming. NMFS has prepared a document titled 2007 Federal Recovery Outline for the Distinct Population Segment of Central California Coast Steelhead that has been finalized. Anderson and Donelly Creeks are considered suitable habitat for the Central California Coast steelhead ESU. The Fisheries Report\textsuperscript{48} identified that the entire reach of Anderson Creek located within the Anderson Valley is open to anadromous fish. Specifically, Anderson Creek is known to contain steelhead spawning areas and juvenile steelhead throughout the winter, spring, and early summer months. High water temperatures and low or non-existent flows during the late summer months and fall now prohibit juvenile steelhead from using Anderson Creek in the Boonville area. The study also shows that the Unnamed Stream, to which the unnamed stream that POD 2 is located upon is tributary, is open to anadromous fish.

Steelhead (\textit{Oncorhynchus mykiss})
Northern California ESU
Federal Status – Threatened
State Status – CSC
Other – None

The Northern California ESU is unique because it includes both summer and winter-run steelhead and a third life-history form called a ‘half-pounder’. As mentioned above, winter-run steelhead begin migrating between November and April and spawn shortly after they arrive in spawning habitats. Juveniles remain in the freshwater environment for one to two years. Summer-run steelhead migrate between late April and June and spend the summer months within deep pools in canyons, eventually spawning from December through April. The two are distinguished from one another by the time of migration, the maturation state of the gonads at migration, and the location of spawning areas. Both of these steelhead ESUs overwinter in the freshwater environment on a one or two year cycle, then return to the ocean during the spring high water flows. Attempts to differentiate winter and summer-run juveniles are highly complicated and only partially successful. The third type, the ‘half-pounder,’ returns to the freshwater environment in an immature state after a brief two to three month period in the
marine environment. This life-history cycle has only been observed within a few runs of the Northern California ESU range. The range of the Northern California ESU includes all naturally spawned populations of steelhead in California coastal river basins from Redwood Creek (inclusive) southward to the Russian River (exclusive) and two artificial propagation programs. The range includes portions of Del Norte, Humboldt, Mendocino, Siskiyou, Sonoma, and Trinity counties. Critical habitat has been designated for Central California Coast steelhead ESU. The portions of Anderson and Donelly Creeks within the project site are designated critical habitat for this steelhead ESU. A document titled 2007 Federal Recovery Outline for the Distinct Population Segment of Northern California Steelhead has been completed by NMFS, but a definitive recovery plan has not been finalized. Anderson and Donelly Creeks are considered suitable habitat for the Northern California steelhead ESU. The Fisheries Report identified that Anderson Creek is open to anadromous fish. The study also shows that the Unnamed Stream, to which the unnamed stream that POD 2 is located upon is tributary, open to anadromous fish.

Special-Status Amphibians
Foothill Yellow-legged Frog (*Rana boylii*)
Federal Status – None
State Status – CSC
Other – None

The foothill yellow-legged frog occurs in and near rocky streams within a variety of habitats including woodlands, forests, riparian, coastal scrub, chaparral, and wet meadows at elevations that range from zero to 1,830 meters above msl. This species typically breeds and lays its eggs during March through May, depending on the amount of rainfall and current hydrologic conditions. Eggs hatch within five to seven days and tadpoles reach maturity within three to four months. Foothill yellow-legged frogs may be active throughout the entire year in the warmest regions of its range, though this species generally becomes inactive and/or hibernates for some part of the year in colder regions. This species is rarely encountered far from permanent water sources. The nearest documented occurrence of foothill yellow-legged frog is located approximately 0.5 mile east of the project site, where Highway 128 crosses Anderson Creek. Anderson and Donelly Creeks are suitable habitat for this species. This species was not observed within the project site during the surveys.

Special-Status Reptiles
Northwestern Pond Turtle (*Actinemys marmorata marmorata*)
Federal Status – None
State Status – CSC
Other – None

The northwestern pond turtle occurs in a variety of permanent to semi-permanent aquatic features including ponds, marshes, rivers, streams, and irrigation ditches within many different habitat types. It requires basking sites such as rocks, partially submerged logs, mats of vegetation, or sand bars and mud banks. Northwestern pond turtle also requires suitable upland habitat for nesting and egg laying, which generally consists of sandy banks, hilly banks, and grazed pastures within a variety of soil types. Eggs hatch typically hatch within two to three months and individuals reach asexual maturity at around eight years of age. This species is known to occur at elevations that range from approximately zero to 1,830 meters above msl. The nearest documented occurrence of northwestern pond turtle is located approximately 12 miles northeast of the project site, within the “Elledge Peak, California” USGS 7.5-minute topographic quadrangle. Anderson Creek, Donnelly Creek, and the two reservoirs onsite are
suitable habitat for this species. This species was not observed within the project site during the field surveys.

**Special-Status Birds**
Northern Goshawk (*Accipiter gentiles*)
Federal Status – None
State Status – CSC
Other – None

The northern goshawk is a raptor that occurs in coniferous forest habitats throughout northern and eastern California. This species usually nests on north facing slopes, near water, in the densest portions of tall, old conifer stands. Northern goshawk forages throughout wooded areas, typically coniferous forests with large snags, and less frequently in riparian habitats. This species is occasionally observed along the North Coast, throughout the foothills, and in northern deserts. Northern goshawk nests from June through August. This species may use the oak woodland and riparian forest habitats within the project site for foraging. However, suitable nesting habitat for northern goshawk does not occur onsite. This species was not observed within the project site during the field surveys.

American Peregrine Falcon (*Falco peregrinus anatum*)
Federal Status – Delisted
State Status – Endangered
Other – None

The American peregrine falcon is a raptor that occurs in a variety of habitats throughout most of California except for the Mojave Desert region. This species nests primarily in woodland, forest, and coastal habitats that are near wetlands, lakes, rivers, or other larger bodies of water on high cliffs, banks, dunes, or mounds. It may also nest on human-made structures, in tree snags, or in nests that other raptor species have abandon. The American peregrine falcon nesting season occurs from March to August. Active nesting sites have been observed along the coast north of Santa Barbara and in mountainous regions of northern California. This species may use the habitats within the project site for foraging habitat, especially the reservoir. However, suitable nesting habitat for American peregrine falcon does not occur onsite. This species was not observed within the project site during the field surveys.

**Question A**

No special-status plant and/or animal species were observed within the project site during the biological surveys. The proposed project would include the conversion of six acres of grassland to vineyard. Conversion of this area is not expected to modify habitat supporting special-status species given the findings from the surveys.

The proposed project includes the diversion of up to 150 afa from Anderson Creek and an Unnamed Stream tributary to Donnelly Creek. As discussed, both Anderson and Donnelly Creek are open to anadromous fish. The operation and maintenance of water diverted from Anderson Creek and the Unnamed Stream tributary to Donnelly Creek under the proposed project shall be complaint with the permit terms outlined in the Hydrology and Water Quality section, Question G. These terms include a diversion season limited from December 15 through March 31 and the maintenance of a bypass equivalent to the FMF at POD 1. Limiting the diversion season to this time period assures that diversion would occur during peak winter flows. The diversion season functions to maintain the natural hydrograph within the watershed such that diversion will not disrupt the spawning season and/or habitat requirements of anadromous fishes.
Maintenance of the minimum bypass flow assures that cyclic naturally higher flows will be sustained for a substantial period of time such that fisheries resources are not adversely affected. This measure assures that natural flow regimes will be maintained at levels which are conducive to effective spawning and incubation habitat.

Implementation of the permit terms for fisheries would also serve to maintain the existing quality of habitat for and conditions suitable to the life cycles of special-status amphibian species. Specifically, the limited diversion season and bypass requirement would ensure that an adequate amount of water remains in the stream channels.

For the protection of special-status fish species, in addition to the terms outlined in the Hydrology and Water Quality section, the following permit term, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 30722 and 31434:

- No water shall be diverted under this permit unless Permittee is operating the water diversion facility for Point of Diversion 1 with a fish screen satisfactory to the Deputy Director for Water Rights. The fish screen shall be designed and maintained in accordance with the screening criteria of the National Marine Fisheries Service. Permittee shall provide evidence that demonstrates that the fish screen is in good condition with the annual report and whenever requested by the Division of Water Rights.

To protect nesting and migratory birds and raptor species, the following permit term, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 30722 and 31434:

- Prior to development of vineyard areas not existing as of the date of this permit, and if said construction activities are to occur between February 1 and September 30, Permittee shall hire a biologist, whose qualifications are acceptable to the Deputy Director for Water Rights, to conduct a pre-construction survey for the purpose of identifying nesting bird species. The pre-construction survey shall include all potential nesting habitat within 500 feet of proposed construction areas. The survey shall be conducted no more than 14 days prior to the beginning of construction activities. If an active raptor or migratory bird nest is found during the pre-construction survey, the Permittee shall notify the Department of Fish and Game and the United States Fish and Wildlife Service. If an active raptor nest is found during the pre-construction survey, a 500-foot no-disturbance buffer shall be established and maintained around the nest until all young have fledged. If an active nest of any other migratory or non-migratory bird is found, a 250-foot buffer shall be established around the nest until all young have fledged.

Question B

Riparian vegetation along streams provides essential habitat between terrestrial and aquatic environments for native plant and wildlife species, including several special-status species, and creates corridors for animal movement and plant dispersal across the landscape. In addition, riparian habitats provide important ecological services and benefits to water quality including: water temperature regulation via canopy cover and shade, bed and bank stabilization and erosion control, filtration of sediments and pollutants, nutrient cycling, maintenance of channel form and character, and moderation of hydrologic peaks during the wet season. Due to the essential habitat and services that riparian habitats provide, restrictions on the proximity of ground disturbing activities are often employed (i.e., stream setbacks/buffers) as a means of
protecting existing riparian vegetation and promoting regeneration of riparian vegetation after disturbance. The body of scientific literature associated with riparian buffers and stream setbacks is quite large, with recommendations varying depending on the specific objectives of the research (e.g., focal species, ecosystem function parameters and endpoints, etc.). Additionally, a wide range of physical factors influences local site sensitivity, including soil type, topography, precipitation and channel morphology. Consequently, recommended stream setbacks associated with mitigation are derived from the existing scientific literature, relevant guidance and professional judgment.

Initial evaluation of appropriate and effective stream setbacks and riparian buffers for this project was based upon the guidance provided in Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat, which was prepared for DFG and NMFS. Protection of salmonid habitat relies on a set of ecological functions (e.g., sediment and nutrient filtration, water temperature moderation, maintenance of geomorphic processes, channel and habitat complexity, and forage) in combination with protection of appropriate stream flows. The initial analysis utilized the California Department of Forestry’s (CDF) stream classification system and recommended buffers as a basis for defining appropriate stream setbacks. Conversion of 6 acres to vineyard involved with the proposed project would result in development of proposed vineyard areas in proximity to Anderson Creek (Figure 8). The riparian habitat may be directly impacted during construction if machinery or equipment damages the vegetation associated with the riparian habitat. According to the 2012 Forest Practice Rules, a minimum riparian setback of between 100-150 feet from Anderson Creek would be consistent with requirements of Cal. Code Regs, tit. 14 § 916.9. These specifications are intended to dictate the practice of timber harvest in a manner that protects the riparian zone in watersheds with listed anadromous salmonids. After discussions with DFG during an onsite agency site visit, and through protest resolution, a buffer of 100 feet was considered protective of riparian vegetation and fisheries resources. As such, a minimum setback of 100 feet from Anderson Creek is recommended. Any portions of the existing riparian corridor (defined by extant riparian vegetation, visible in Figure 3) that exceed the minimum 100 foot setbacks shall be maintained as well to preserve the existing functional integrity of the corridors. Specifically, the outer dripline of existing trees and shrubs along Anderson Creek and Donelly Creek shall define the minimum stream setback when riparian vegetation exceeds the minimum stream setbacks. A setback map depicting these setbacks is on file with the Division of Water Rights.

The following permit terms, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 30722 and 31434:

- **For undeveloped portions of the place of use along and adjacent to Anderson Creek,** Permittee shall establish a setback for the protection of the riparian corridor along this creek. The setback shall be measured from the Watercourse Transition Line as defined by the 2012 California Forest Practice Rules (Cal. Code Regs., tit. 14, § 895.1.) and shall extend a minimum of 100 feet or to the outer edge of the drip line of the existing riparian trees, whichever is greater. Prior to ground disturbing activities adjacent to setback areas, the Permittee shall stake the setback and notify the Department of Fish and Game. Except for the exclusions stated herein, no ground disturbing activities shall occur within the setback area, including, but not limited to, grading, herbicide spraying, roads, fencing, and use or construction of storage areas. There is excluded from the setback areas established herein all existing vineyards and planted landscape areas,
roads and roadways, bridges, equipment and material storage areas, buildings, structures, fences, wells, pipes, drainage facilities, utility lines and poles, pumps, sumps, water diversion and storage facilities, and access to all of the foregoing existing features for purposes of operation, maintenance, and replacement, as such facilities and access exists now or may from time to time be modified. Equipment access through the setback area shall incorporate best management practices to minimize disturbance to water, soils, and vegetation. Planting and irrigation of native riparian vegetation within the setback area are allowed. Permittee shall restrict cattle or other domestic stock access to the riparian area. These requirements shall remain in effect as long as water is being diverted under this permit.

**Question C**
Conversion of six acres to vineyard involved with the proposed project would result in development of proposed vineyard areas in proximity to the palustrine emergent wetland located in the northeastern portion of the project site (Figure 8). The habitat may be directly impacted during construction if machinery or equipment damages the vegetation associated with the habitat. A minimum riparian setback of 25 feet from the palustrine emergent wetland should be maintained.

The following permit term, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 30722 and 31434:

- Permittee shall establish a minimum 25 foot setback around the palustrine emergent wetland for the protection of the habitat. Prior to ground disturbing activities adjacent to the palustrine emergent wetland, the Permittee shall stake the setback and notify the Department of Fish and Game. Except for activities necessary for the ongoing operation and management of any existing vineyard within the setback and activities associated with future replanting of any existing vineyard within the setback, no ground disturbing activities shall occur within the setback area, including, but not limited to, grading, herbicide spraying, roads, fencing, and use or construction of storage areas. Permittee shall restrict cattle or other domestic stock access to the palustrine emergent wetland. These requirements shall remain in effect as long as water is being diverted under this permit.

**Question E**
Mendocino County does not have a tree preservation policy or ordinance and the proposed project would not conflict with any local policies or ordinances protecting biological resources.

**Question F**
No Habitat Conservation Plan or Natural Community Conservation Plan has been adopted for the project site. The proposed project would not result in conflicts with any approved local, regional, state, or federal habitat conservation plans.

**Findings**
After the implementation of the permit terms outlined above, impacts to biological resources as a result of the proposed project are considered less than significant.
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?

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

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

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

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

The project site is zoned Agricultural District (A-G) which includes the following uses:

1. Residential Use Types: single family residential
2. Civic Use Types: community recreation, essential services, fire and police protection services, minor impact utilities
3. Commercial Use Types (subject to a Minor Use Permit): animal sales and services--horse stables, kennels, stockyards
4. Agricultural Use Types: animal raising, forest production and processing, horticulture; limited winery packing and processing, row and field crops, tree crops

Agriculture and agricultural production are valued land uses in Mendocino County. Agricultural goals outlined in the Agriculture section of the Development Element, Mendocino County General Plan include:

Goal Number 1: The County shall protect and maintain prime agricultural land and prime rangeland.

Goal Number 2: The County shall seek to minimize the conflicts between agricultural operations and other land and resource uses.
Goal Number 3: The County shall constantly strive to create and promote those policies and conditions that will enable Mendocino County ranchers, farmers, and homesteaders to maintain economically sound and profitable operations.

Goal Number 4: The County shall maintain prime rangeland in units sufficient to provide for an economic management base.

Questions A–E
The project site is zoned Agricultural District, which includes agricultural land uses. Under the proposed project, the project site would continue to be used for agricultural purposes. The proposed project would not conflict with zoning for forestland or timber use. The project would not result in the removal of forest land. The proposed project would not conflict with an existing Williamson Act contract. No impact would occur.

Findings
No impacts would occur to agricultural or forestry resources as a result of the proposed project.
6. **Noise.** Would the project result in:

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<tr>
<td>a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</td>
<td>☐</td>
<td>☐</td>
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<td>b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?</td>
<td>☐</td>
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<td>c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
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<tr>
<td>d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
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<tr>
<td>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing in or working in the project area to excessive noise levels?</td>
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<tr>
<td>f) For a project within the vicinity of a private airstrip, would the project expose people residing in or working in the project area to excessive noise levels?</td>
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Potentially significant sources of noise within Mendocino County include: highways and freeways; primary arterials and major local streets; passenger and freight on-line railroad operations and ground rapid transit systems; commercial, general aviation, heliport, helistop, and military airport operations, aircraft over-flights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation; and local industrial plants, including, but not limited to, railroad classification yards. The circulation system within Mendocino County is one of the major sources of continuous noise\(^{56}\). Noise sensitive areas identified within Mendocino County include areas containing schools, hospitals, rest homes, long-term medical or mental care facilities, or any other land use areas deemed noise sensitive by the local jurisdiction\(^{57}\). Anderson Valley Elementary School is located approximately 1.5 miles northwest of the project site.

**Questions A–D**

The project is located in an area zoned for agriculture and potential sources of noise generated at the project site would result from construction and routine agricultural activities and would be similar to existing activities in the area. Potential impacts are considered less than significant.

**Questions E–F**

The project site is located approximately one mile from the Boonville Airport. This airport has the potential to expose people residing or working in the project area to noises from the airport’s activities; however, given the size of the airport, exposure to noise is not expected to be substantial. Short-term construction activities would expose workers to short-term noise levels typical of those associated with equipment. This is considered a less than significant impact.

**Findings**

Impacts to noise as a result of the proposed project are considered less than significant.
7. Land Use and Planning. Would the project:

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<td>b)</td>
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<td>c)</td>
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</table>

The project site is located in Mendocino County immediately northeast of the community of Boonville. The Mendocino County General Plan (General Plan) Development Element and its policies guide growth and the development and use of land in Mendocino County. The Development Element of the General Plan designates the project area as "Agricultural Lands". Permitted land uses within this category include:

- Residential uses
- Agricultural uses
- Utility installations
- Processing and development of natural resources
- Cottage industries
- Residential clustering
- Conservation
- Horticulture
- Limited winery packing and processing
- Row and field crops

Question A
The project site is currently developed with agricultural uses. The proposed project would not result in physical barriers that would divide an established community.

Question B
The proposed project is consistent with the area’s General Plan and zoning designations.

Question C
No habitat conservation plan or natural community conservation plan currently exists for the project site or immediate vicinity. The proposed project would not have the potential to conflict with any existing habitat conservation plans or natural community conservation plans.

Findings
Impacts to land use as a result of this project are considered less than significant.
8. **Mineral Resources.** Would the project:

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<th>Less Than Significant Impact</th>
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<td>a)</td>
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<td>b)</td>
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</table>

Various minerals have been found in Mendocino County, including: asbestos, carbon dioxide, chromite, coal, copper, feldspar, gold, jade, limestone, magnesite, manganese, methane gas, mineral springs, natural gas, nickel, petroleum, phosphate, platinum, quicksilver, sand and gravel, and sulfur. The project site is not located in an area containing mineral resource deposits.\(^{59}\)

*Questions A–B*

No mineral resources are located near the project site as mapped by the County of Mendocino General Plan.

*Findings*

No impacts would occur to mineral resources as a result of the proposed project.
9. **Hazards and Hazardous Materials.** Would the project:

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<th>Option</th>
<th>Potentially Significant Impact</th>
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<th>Less Than Significant Impact</th>
<th>No Impact</th>
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</thead>
<tbody>
<tr>
<td>a)</td>
<td>Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b)</td>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c)</td>
<td>Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>d)</td>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>e)</td>
<td>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?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>f)</td>
<td>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?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>g)</td>
<td>Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>h)</td>
<td>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?</td>
<td>☐</td>
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</table>

Database searches\(^{60}\) were conducted for records of known sites of hazardous materials generation, storage, or contamination, as well as known storage tank sites on the project site and within the immediate vicinity. Databases were searched for sites and listings up to one-mile from a point roughly equivalent to the center of the subject property. The project site was not listed on any database as having previous and/or current generation, storage, and/or use of hazardous materials. The database also identifies any known hazardous materials sites within a one-mile radius of the project area. Eight sites within a one-mile radius of the project area were identified and are summarized below.

- The Chevron #9-6221 site is located at 14125 Highway 128, Boonville CA, approximately 0.35 miles south of the project site. The site is listed on the state Leaking Underground Storage tank (LUST) database and the state Cortese Hazardous Waste and Substances site list (CORTESE). Leaking underground storage tanks were discovered on the property in 1989. The database did not list any other information for the Chevron site. Given the distance of the Chevron site from the project site, it is not likely to impact the planned use of the project site.
- The Partners Building site is located at 14111 Highway 128, Boonville CA, approximately 0.30 miles south of the project site. The site is listed on the state LUST database and the state CORTESE. The database lists this site as requiring no remedial action; therefore, it is not likely to impact the planned uses of the project site.
o The Anderson Vineyards, Inc. site is located approximately 0.05 miles northwest of the project site at 17601 Fitch Lane, Boonville CA. The site is listed on the state (LUST) database as having leaking tanks that were discovered in 1999. As a result the site was approved for a remediation plan and has been listed as a closed case since 2002. The site is also listed on the Hazardous Waste Information System (HAZNET) and the state CORTESE as generating two tons per year of empty containers 30 gallons or more in size. The database did not report any spills associated with the Anderson Vineyards, Inc. site. Due to the fact that the Anderson Vineyards, Inc. site is a closed site on the LUST database, it is not likely to affect the planned use of the project site.

o The CDOT Boonville site is located at 14001 Highway 128, Boonville CA, approximately 0.28 miles south of the project site. The site is listed on the state LUST database and the state CORTESE, but has been listed as a closed case since 1996. The database lists this site as requiring no remedial action; therefore, it is not likely to affect the planned uses of the project site.

o The Jeff Chevron site is located at 14289 Highway 128, Boonville CA, approximately 0.52 miles south of the project site. The site is listed on the state LUST database and the state CORTESE. Leaking underground storage tanks were discovered on the property in 1994. The site is currently under a remediation plan and regulatory review. Given the distance of the site from the project site, it is not likely to impact the planned use of the project site.

o The Gavin Gracey site is located at 12651 Anderson Valley Way, Boonville CA, approximately 0.70 miles northwest of the project site. The site is listed on the state LUST database and the state CORTESE, but has been listed as a closed case since 1993. The database lists this site as requiring no remedial action; therefore, it is not likely to impact the planned uses of the project site.

o The MCDPW Boonville Road Yard site is located at 14000 Highway 128, Boonville CA, approximately 0.32 miles southwest of the project site. The site is listed on the state LUST database and the state CORTESE. Leaking underground storage tanks were discovered on the property in 1997. The site is currently under regulatory review. Given the distance of the site from the project site, it is not likely to impact the planned use of the project site.

o The Redwood Drive-In site is located at 13980 Highway 128, Boonville CA, approximately 0.31 miles southwest of the project site. The site is listed on the state LUST database and the state CORTESE, but has been listed as a closed case since 2007. The database lists this site as requiring no remedial action; therefore, it is not likely to impact the planned uses of the project site.

Questions A, B and D
A search of government environmental records did not reveal any known hazardous materials sites within the project site. Hazardous materials that would be used during construction and operation of the proposed project would be limited to common petroleum and agricultural products. When properly used, these products do not present a significant hazard and impacts resulting from the proposed project would be considered less than significant.

Question C
The proposed project is not located within quarter mile of any existing or proposed schools and the proposed project would not present a safety hazard to any schools. No impact would occur.

Questions E and F
The project site is located approximately one mile from the Boonville Airport, but the proposed project would not present a safety hazard to persons at the airport. No impact would occur.
**Question G**  
The proposed project does not include components that would interfere with an adopted emergency plan. No impact would occur.

**Question H**  
The proposed project is located in an area that contains substantial fuels (e.g., grasses, shrubs, other vegetation) that are susceptible to wildland fire. The risk of wildland fire is similar to that for other construction sites and can be minimized through the use of BMPs. The proposed project would implement BMPs (e.g., clearing construction areas of combustible material, ensuring spark arresters are in good working order) during project construction. Therefore, potential impacts are considered less than significant.

**Findings**  
Impacts to hazards and hazardous materials as a result of this project are considered less than significant.
10. **Population and Housing.** Would the project:

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<th>Potentially Significant Impact</th>
<th>Less Than Significant With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
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</thead>
<tbody>
<tr>
<td>a)</td>
<td>Induce substantial population growth in an area either directly <em>(e.g., by proposing new homes and businesses)</em> or indirectly <em>(e.g., through extension of roads or other infrastructure)</em>?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td>b)</td>
<td>Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c)</td>
<td>Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
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</tbody>
</table>

The proposed project site is located immediately east of the town of Boonville in Mendocino County. As discussed above, the project site is currently developed with agricultural uses.

**Questions A–C**

The proposed project does not involve the development of any homes or businesses. The proposed project would not generate commercial activities substantial enough to induce substantial growth in the project area. The proposed project would not displace people or housing.

**Findings**

Impacts to population and housing as a result of the proposed project are considered less than significant.
### 11. Transportation and Circulation

Would the project:

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<tbody>
<tr>
<td>a)</td>
<td>Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?</td>
<td>☐</td>
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<tr>
<td>b)</td>
<td>Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>c)</td>
<td>Result in inadequate emergency access?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>d)</td>
<td>Result in inadequate parking capacity?</td>
<td>☐</td>
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<td>e)</td>
<td>Exceed, either individually or cumulatively, a level-of-service standard established by the county congestion management agency for designated roads or highways?</td>
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<tr>
<td>f)</td>
<td>Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?</td>
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<td>g)</td>
<td>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?</td>
<td>☐</td>
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Vehicular access to the project site is provided by State Highway 128, a two-lane highway that traverses the southern portion of Mendocino County, from the coast between Albion and Elk southeasterly to Cloverdale in Sonoma County.

**Questions A–G**

A negligible increase in traffic is anticipated from development of the proposed vineyard areas. The increase in traffic would be temporary, caused mainly by construction crews and transportation of materials to and from construction areas. This increase is expected to be slight and would not represent a significant impact to transportation or circulation. Vineyard operation would require workers that would commute to the project site and truck trips would occur during harvest. However, trips generated during vineyard operations would typically occur during non-peak hours and the proposed project would not generate a substantial or continuous increase in traffic or exceed a level-of-service standard. No substantial new impediments to emergency access or increase in hazards due to a design feature or incompatible uses would occur. The proposed project would not result in inadequate emergency access or parking capacity, or conflict with adopted alternative transportation policies, plans, or programs. No change in air traffic patterns would occur.

**Findings**

Impacts to transportation and circulation as a result of the proposed project are considered less than significant.
12. **Public Services.** Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:

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<tr>
<td>a) Fire protection?</td>
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<tr>
<td>b) Police protection?</td>
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<td>☐</td>
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<td>☐</td>
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<tr>
<td>c) Schools?</td>
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<tr>
<td>d) Parks?</td>
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<tr>
<td>e) Other public facilities?</td>
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</table>

Public services include fire and police protection, schools, parks, and other public facilities. The Anderson Valley Fire Department provides fire protection in the project area. Police protection is provided by the Mendocino County Sheriff’s Department. Anderson Valley Unified School District provides K-12 grade education in the project area.

**Questions A–E**

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

**Findings**

No significant impacts would occur to public services as a result of the proposed project.
13. **Utilities and Service Systems.** Would the project:

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<th>Potentially Significant Impact</th>
<th>Less Than Significant With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b)</td>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c)</td>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d)</td>
<td>Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>e)</td>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f)</td>
<td>Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g)</td>
<td>Comply with federal, state, and local statutes and regulations related to solid waste?</td>
<td>☐</td>
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</tbody>
</table>

Development of the proposed project would not require the use of water or wastewater treatment facilities. Other utility or service system requirements of the proposed project would be met by existing infrastructure within the subject property. The Ukiah landfill in Mendocino County accepts solid waste from the project area.

**Questions A–G**

No new wastewater would be generated as a result of the proposed project. Under the proposed project surface water would be used for vineyard operations. An analysis of surface water supply is discussed in the Hydrology and Water Quality section, Question G. Additional water supplies, such as connection to public water supply, would not be required. The proposed project would not generate significant solid waste and would not conflict with government regulations concerning the generation, handling or disposal of solid waste.

**Findings**

Impacts to utilities and service systems as a result of the proposed project are considered less than significant.
14. **Aesthetics.** Would the project:

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<tbody>
<tr>
<td>a) Have a substantial adverse effect on a scenic vista?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
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<tr>
<td>b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>c) Substantially degrade the existing visual character or quality of the site and its surroundings?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
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<tr>
<td>d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?</td>
<td>☐</td>
<td>☐</td>
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</table>

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

**Questions A–D**

The proposed project is considered agricultural in nature, located within an agricultural area, and is compatible with surrounding land uses. No substantial new sources of light or glare would result from the proposed project. The proposed project would not substantially alter the existing visual character of the area or substantially impact a scenic vista or resource.

**Findings**

Impacts to aesthetics as a result of the proposed project are considered less than significant.
15. Cultural Resources. Would the project:

<table>
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<th>Impact Level</th>
<th>Question</th>
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<tr>
<td>Potentially Significant Impact</td>
<td>☐</td>
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<tr>
<td>Less Than Significant With Mitigation Incorporated</td>
<td>☑</td>
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<tr>
<td>Less Than Significant Impact</td>
<td>☐</td>
</tr>
<tr>
<td>No Impact</td>
<td>☐</td>
</tr>
</tbody>
</table>

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

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

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

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)).”

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

CEQA requires consideration of potential impacts to resources that are listed or qualify for listing on the California Register, as well as resources that are significant but may not qualify for listing.

A cultural resources survey of the project site was conducted on December 23, 1998 by a four-member crew from the Anthropological Studies Center of Sonoma State University Academic Foundation, Inc. A cultural resources study was prepared on January 12, 1999 that characterizes past uses of the project site, summarizes the results of a field survey and archival records results, and provides resource treatment recommendations.

A review of ethnographic literature and maps, including archival research at the Northwest Information Center, Sonoma State University, and a review of the State of California Native American Heritage Commission Sacred Lands File, found that there are no recorded cultural resources, sacred lands sites, or ethnographic sites reported within the project site.

The field survey did not identify any prehistoric or historic archaeological sites within the vineyard or reservoir sites. A single-story vernacular building located outside of the development area that meets the 45 years of age criteria for recordation of historic resources was recorded.
Questions A–D
No prehistoric or historic sites were found in the vineyard or reservoir areas during the cultural resources field survey. One building with potentially historical significance was found on the project site, outside of the area proposed for development. To reduce impacts to the potential historically significant building, the following permit term, substantially follows, shall be included in any water right permits or licenses issued pursuant to Applications 30722 and 31434:

- If proposed project activities are to affect the building identified by Anthropological Studies Center in the report titled “A Cultural Resources Study of the Donnelly Creek Vineyards Property. Boonville, Mendocino County, California” dated January 1999 shall be avoided during project construction, development, and operation. The site shall not be impacted by any of the features of the proposed project (e.g., water diversion, storage reservoirs, and distribution facilities, including installation of buried pipelines; and ripping, trenching, grading, or planting related to conversion and maintenance of the place of use). If future project-related activities or developments at the location of the building are unavoidable, then an archaeologist who has been approved by the California Historical Information System to work in the area and who is acceptable to the staff of the Division of Water Rights shall further evaluate the site and determine if it is recommended for listing on the California Register of Historical Resources. If mitigation is determined to be necessary, then the archaeologist shall design an appropriate mitigation plan and submit the plan for approval by the Deputy Director for Water Rights. After the plan has been approved, the mitigation must be completed to the satisfaction of the Deputy Director for Water Rights prior to activities in the area of the site. Permittee shall be responsible for all costs associated with the cultural resource related work.

There is the possibility that subsurface archeological deposits or human remains could be present and accidental discovery could occur through vineyard development, operation and maintenance activities. As such, the following permit terms, substantially as follows, shall be included in any water right permits or licenses issued pursuant to Applications 30722 and 31434:

- 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 Permittee shall comply with Section 15064.5 (e) (1) of the CEQA Guidelines and the Public Resources Code Section 7050.5. All project-
related ground disturbance within 100 feet of the find shall be halted until the 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
After the implementation of the permit terms outlined above, impacts to cultural resources as a result of the proposed project are considered less than significant.
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?  
      ☐ ☐ ☐ ✔

Mendocino County has various types of parklands, including Federal Recreation Areas and State Parks, regional parks, county parks and neighborhood parks. Recreational opportunities include fishing, camping, swimming, picnicking, horseback riding, bicycling, and hiking or walking.

Questions A and B
The proposed project would result in 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. The proposed project does not include recreation facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Findings
No impacts would occur to recreation as a result of the proposed project.
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?

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Questions A–C

As discussed in the preceding sections, the proposed project has a potential to degrade the quality of the environment by adversely impacting geology and soils, air quality and GHG emissions, hydrology and water quality, biological resources, and cultural resources. However, with implementation of the identified permit terms, potential impacts would be reduced to a less than significant level. Potential adverse environmental impacts in combination with the impacts of other past, present, and future projects, could contribute to cumulatively significant effects on the environment. However, with implementation of the identified permit terms, the proposed 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:

ORIGINAL SIGNED BY David Zweig  
David Zweig
Analytical Environmental Services

Reviewed By:

ORIGINAL SIGNED BY Angela Nguyen-Tan  
Angela Nguyen-Tan, Environmental Scientist
Coastal Streams Unit
Division of Water Rights

Approved By:

ORIGINAL SIGNED BY Matt McCarthy  
Matt McCarthy, Unit Senior
Coastal Streams Unit
Division of Water Rights

(Form updated 3/28/00)

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

IV. INFORMATION SOURCES

1 Amendment to Applications 30722 and 31434 of Donnelly Creek Vineyards LLC. Wagner & Bonsignore, Consulting Civil Engineers. May 16, 2011.

2 Ibid.

3 Ibid.

4 Statement of Diversion and Use (S015648) filed on August 11, 2003 with State Water Resources Control Board, Division of Water Rights. Per e-WRIMS database.

5 Water Availability Analysis for Anderson Creek Watershed, Mendocino County. Prepared by Wagner & Bonsignore Consulting Civil Engineers. June 15, 2007


7 Western Regional Climate Center database for Ukiah, California. Western Regional Climate Center, Reno, Nevada. Accessed on July 12, 2012 from http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?caukia+nca


13 Ibid

14 Ibid

15 Applications 30722 and 31434 of Donnelly Creek Vineyards. Letter from Wagner & Bonsignore Consulting Civil Engineers. July 5, 2011.


17 Ibid

18 Ibid.

19 Ibid.


Ibid.


Applications 30722 and 31434 of Donnelly Creek Vineyards, LLC. Letter from Wagner & Bonsignore, Consulting Civil Engineers. April 12, 2012.

Applications 30722 and 31434 of Donnelly Creek Vineyards. Letter from Wagner & Bonsignore Consulting Civil Engineers. July 5, 2011.

Memorandum: Field Visit for Applications 30722 and 31434 of Donnelly Creek Vineyards, LLC to Appropriate Water from Anderson Creek and from Unnamed Stream Tributary to Donnelly Creek thence Anderson Creek thence Navarro River in Mendocino County. October 18, 2010.

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California Natural Diversity Database. California Department of Fish and Game. Selected Elements by Scientific Name. 2007.


Memorandum: Field Visit for Applications 30722 and 31434 of Donnelly Creek Vineyards, LLC to Appropriate Water from Anderson Creek and from Unnamed Stream Tributary to Donnelly Creek thence Anderson Creek thence Navarro River in Mendocino County. October 18, 2010.

Comments on Draft IS/MND for Donnelly Creek Vineyards. E-mail from Jane Arnold of Department of Fish and Game. May 16, 2012.


Ibid.

Ibid.


