

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: Narsai David Appropriative Water Rights Applications: 29686 and 29687

APPLICANT: Mr. Narsai David
2825 Webster Street
Berkeley, CA 94705

APPLICANT'S CONTACT PERSON: Diane Willson
Napa Valley Vineyard Engineering, Inc.
176 Main Street, Suite B
St. Helena, CA 94574
707/963-4927

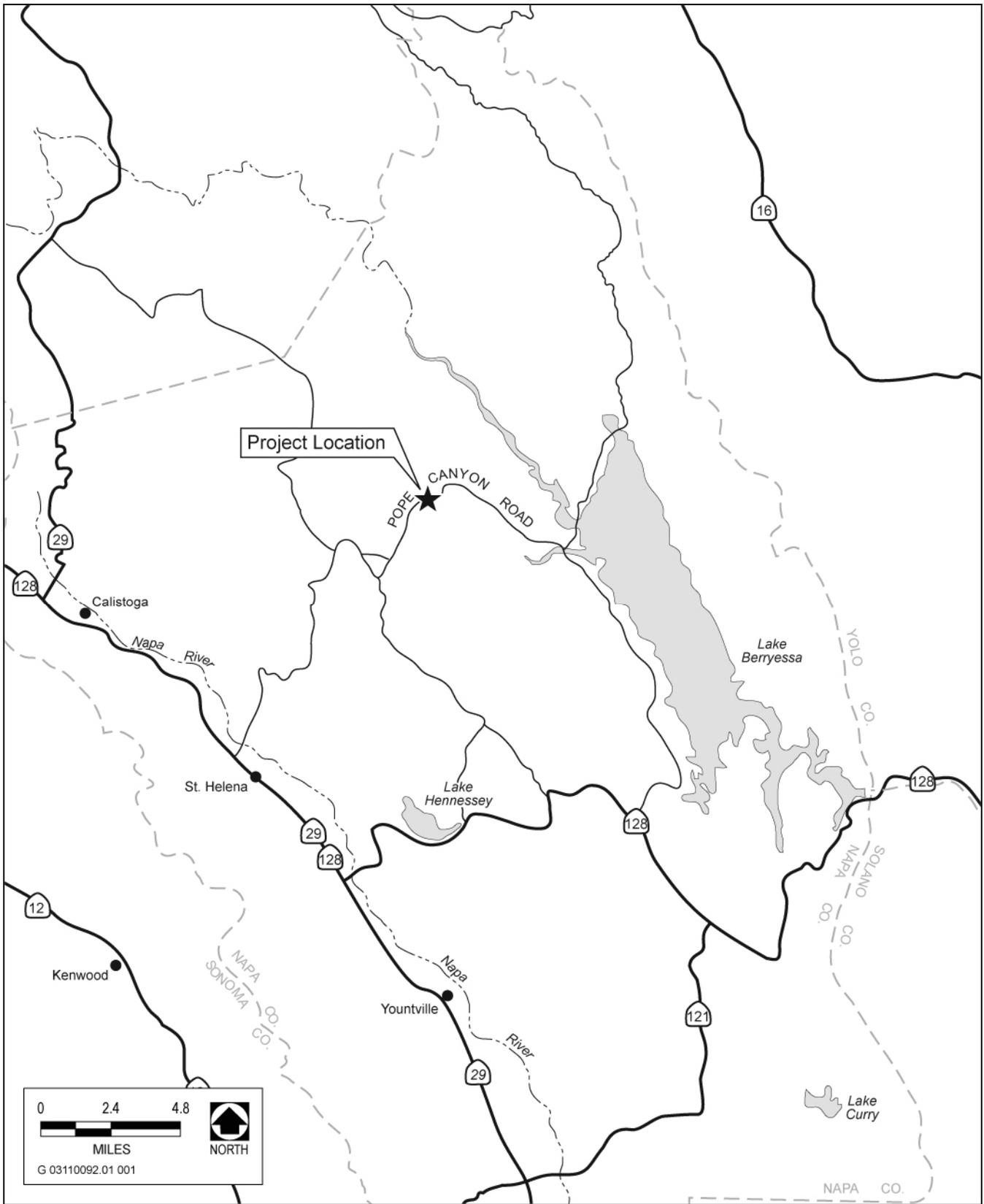
General Plan Designation: Agriculture, Watershed, and Open Space

Zoning: Agricultural Watershed

INTRODUCTION

The project site is located in Pope Valley, California, in Napa County (Figure 1). It ranges from approximately 600 to 720 feet above mean sea level (MSL) in elevation and is located within the U.S. Geological Survey (USGS) 7.5-minute Aetna Springs Quadrangle Township 9N, Range 5W, Sections 11 and 14. The project site covers approximately 58 acres along Pope Canyon Road and is located within the Putah Creek watershed above Lake Berryessa (Figure 2). Regional access to the project site is readily available from Pope Canyon Road.

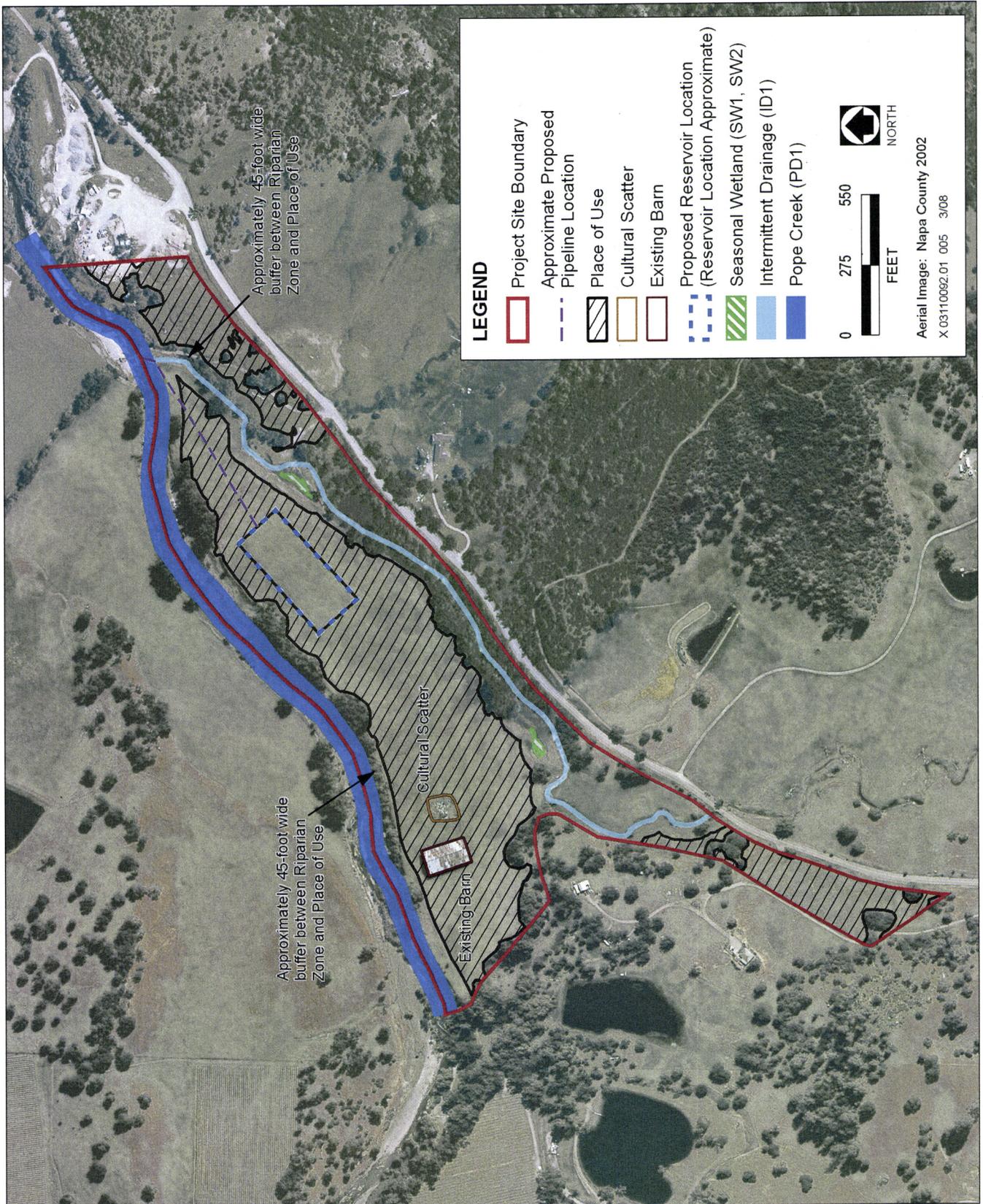
Narsai David (Applicant) owns the property where the project is located (Napa County Assessor's Parcel Number 018-080-050). At the time the Applicant purchased the property in 1989, the parcel was 103.5 acres and included a residence, outbuildings, and an open-sided barn. The northern portion of the property was grazed pastureland. The parcel was split in 1992, and the Applicant now owns a 57.66-acre parcel. The Applicant's parcel consists of the previously cultivated and grazed pastureland and an open-sided barn.



Source: EDAW 2004

Regional Location Map

Figure 1



LEGEND

- Project Site Boundary
- Approximate Proposed Pipeline Location
- Place of Use
- Cultural Scatter
- Existing Barn
- Proposed Reservoir Location (Reservoir Location Approximate)
- Seasonal Wetland (SW1, SW2)
- Intermittent Drainage (ID1)
- Pope Creek (PD1)

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FEET

NORTH

Aerial Image: Napa County 2002
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Source: DWR 2004, EDAW 2004, EDAW 2007

Proposed Site Plan

Figure 2

PROJECT BACKGROUND

Applications 29686 and 29687 were originally filed in 1990 prior to the parcel split, seeking appropriate water right permits for direct diversion of 3 cubic feet per second (cfs), with an annual limit of 49 acre-feet per annum (afa) under Application 29686 for frost protection and for diversion to storage of 98 afa under Application 29687 for irrigation, frost protection, and heat control of a proposed 80-acre vineyard. The Applicant submitted revised applications to the State Water Resources Control Board (State Water Board) on November 24, 2003, which reduced the place of use (POU) from 80 acres to 50 acres and the total diversion under both applications combined from 147 afa to 113 afa. The revised applications also reduced the collection to storage under Application 29687 from 98 afa to 87 afa. An August 2, 2007 letter from the Applicant requested that the diversion rate for Application 29686 be reduced from 3 cfs to 2 cfs, with an annual limit of 26 af.

Applications 29686 and 29687 were publicly noticed on July 24, 1992. The State Water Board received protests from the following interested parties: California Department of Fish and Game (DFG), United States Bureau of Reclamation (Reclamation), Solano County Water Agency, and the Solano Irrigation District.

The protest by DFG was resolved by the parties with the inclusion of Standard Permit Term 60 and Modified Permit Term 63 to be included in any permits or licenses issued pursuant to Applications 29686 and 29687. Standard Permit Term 60 pertains to a minimum bypass for the protection of fish and wildlife from November 1 through May 15. Modified Permit Term 63 requires that the Applicant enter into a stream alteration agreement with DFG prior to construction of diversion works.

Reclamation's protest was dismissed following protest negotiations that any permits or licenses issued pursuant to Applications 29686 and 29687 would include Standard Permit Terms 86 and 87, which are required for projects with direct diversion and storage from Putah Creek and its tributaries upstream from the Solano project of Reclamation (drainage into Lake Berryessa).

Protests by the Solano Irrigation District and Solano County Water Agency were dismissed subsequent to the State Water Board's September 9, 1992 letter, which requested site-specific information to support the protests within 30 days of the State Water Board's letter. The information was not received in a timely manner and the protests were dismissed.

PROJECT DESCRIPTION

Application 29686 seeks the right to divert 26 af from Pope Creek between March 15 and May 15 for frost protection. Application 29687 seeks the right to divert up to 87 afa from Pope Creek to offstream storage between November 1 and May 15 for irrigation, frost protection, and heat protection of the 50-acre vineyard.

The initial filling of the 49 af reservoir would be by water pumped from Pope Creek during the winter diversion season (November 1 to May 15) under Application 29687. In a typical season, the reservoir would be full prior to March 15, the start of the frost season. During the frost season (March 15 to May 15), when water would be withdrawn from the reservoir for frost protection, it would simultaneously be pumped from Pope Creek into the reservoir to replenish the water being used. Under the "last in, first out" rule, the amount of water pumped from a reservoir that is equal to the amount of water pumped from the creek is considered direct diversion. For example, if 6.1 cfs were pumped from the proposed reservoir for frost protection, and 2 cfs were pumped from the creek to the reservoir, then 4.1 cfs would be considered withdrawal from storage, and 2 cfs would be considered direct diversion. The direct diversion is covered under Application 29686. Water pumped from the creek to refill the reservoir after a frost event but withdrawn for a subsequent event within 30 days would be considered direct diversion.

under Application 29686. Water pumped from the creek after a frost event remaining in the reservoir for longer than 30 days would be considered storage under Application 29687.

Once 26 af of water is used by direct diversion, any additional frost protection would be from storage only, and no further direct diversion would take place. After the storage is exhausted, no further frost protection is allowed. Water can be replenished up to 38 af, to be stored for summertime irrigation/heat control.

Applications 29686 and 29687 are summarized below:

APPLICATION 29686

Diversion Amount: 26 afa
Reservoir: None – Direct Use
Diversion Season: March 15 to May 15
Diversion Purpose: Frost protection for 50-acre POU

APPLICATION 29687

Diversion Amount: 87 afa to storage
Reservoir: Unnamed Offstream Reservoir (proposed)
Diversion Season: November 1 to May 15
Diversion Purpose: Irrigation, frost protection, and heat control of 50-acre POU

The proposed project includes construction of a 2 cfs diversion facility in Pope Creek, with a 10-inch polyvinyl chloride (PVC) pipe to convey water, a 49 af offstream pit-type reservoir, and a PVC pipe distribution system to the POU where the vineyards would be located. Construction of the reservoir and trenching for installation of the pipe would require use of a backhoe over a period of several days. Soil excavated to create the reservoir would be used to form berms on the perimeter, with no trucking of material off-site.

The 50-acre POU is comprised of three zones. The largest zone is located between Pope Creek and the unnamed drainage. Two smaller zones are located along the north side of Pope Canyon Road (Figure 3). The POU would be set back at least 45 feet from the top of the bank of Pope Creek, the Unnamed Stream, and delineated wetlands. This setback would be in conformance with Napa County requirements for setbacks for new land clearings for agricultural purposes (18.108.025(B)¹). The Point of Diversion (POD) would be located on the south side of Pope Creek just downstream from the junction with the unnamed drainage. The diversion structure would be a screened intake leading to a diversion "box," housing the pump and pump controls, and located 15 to 20 feet from the top of the bank. The only equipment in the creek is the screen and the intake pipe leading to the diversion box. The screening will be protective of fish with approach velocities and screen openings conforming to DFG requirements.

To provide vehicle access to the main POU, a bridge would span the unnamed drainage channel just east of the location of the proposed reservoir. The bridge would be designed to avoid disturbance to bed, banks, or any riparian habitat at that location. A total of 15 trees would be removed from the POU to facilitate vineyard development. These trees are scattered within the northeast portion of the POU and are not within the riparian corridor or 45-foot buffer zone. Trees to be removed include nine blue

oaks (*Quercus douglasii*), three black oaks (*Quercus kelloggii*), two grey pines (*Pinus sabiniana*), and one valley oak (*Quercus lobata*).

As discussed in the 2007 Compliance Plan², water would be diverted from Pope Creek through a pumping facility, which would be constructed so that water cannot enter the intake structure until there is at least 47.1 cfs flowing in the creek at the POD. A meter, which measures the flow rate and total flow, would be installed on the diversion pump discharge pipe, and the pump would be automated to operate whenever water enters the diversion structure. A device would be installed at the reservoir that would signal the diversion pump to shut down once the reservoir is full. A staff gage would be installed in the reservoir, and meters would be installed on the discharge lines of the irrigation and frost protection pumps. Prior to the start of the diversion season on November 1, the pump at the POD would not be activated, thereby bypassing all flows in Pope Creek. During the diversion season, on or after November 1, the diversion pump would be activated. When the reservoir is full, the diversion pump would shut down and would remain off unless the water level in the reservoir is drawn down for frost protection. If the meter reading on the pump reaches 113 af prior to May 15, the diversion pump would be deactivated and would remain off until the following diversion season. After the diversion season, the pump in Pope Creek would be deactivated on or before May 15, and would remain off until the start of the following diversion season.

CEQA BASELINE

The California Environmental Quality Act (CEQA) baseline for this project has been set at 1990, the date the water rights applications were filed with the State Water Board. No facilities related to water diversion, conveyance, or storage have been constructed on the project site, and physical conditions on the project site in 1990 do not materially differ from existing physical conditions on the project site. Therefore, the 1990 CEQA baseline is the same as the existing environmental setting.

ENVIRONMENTAL SETTING

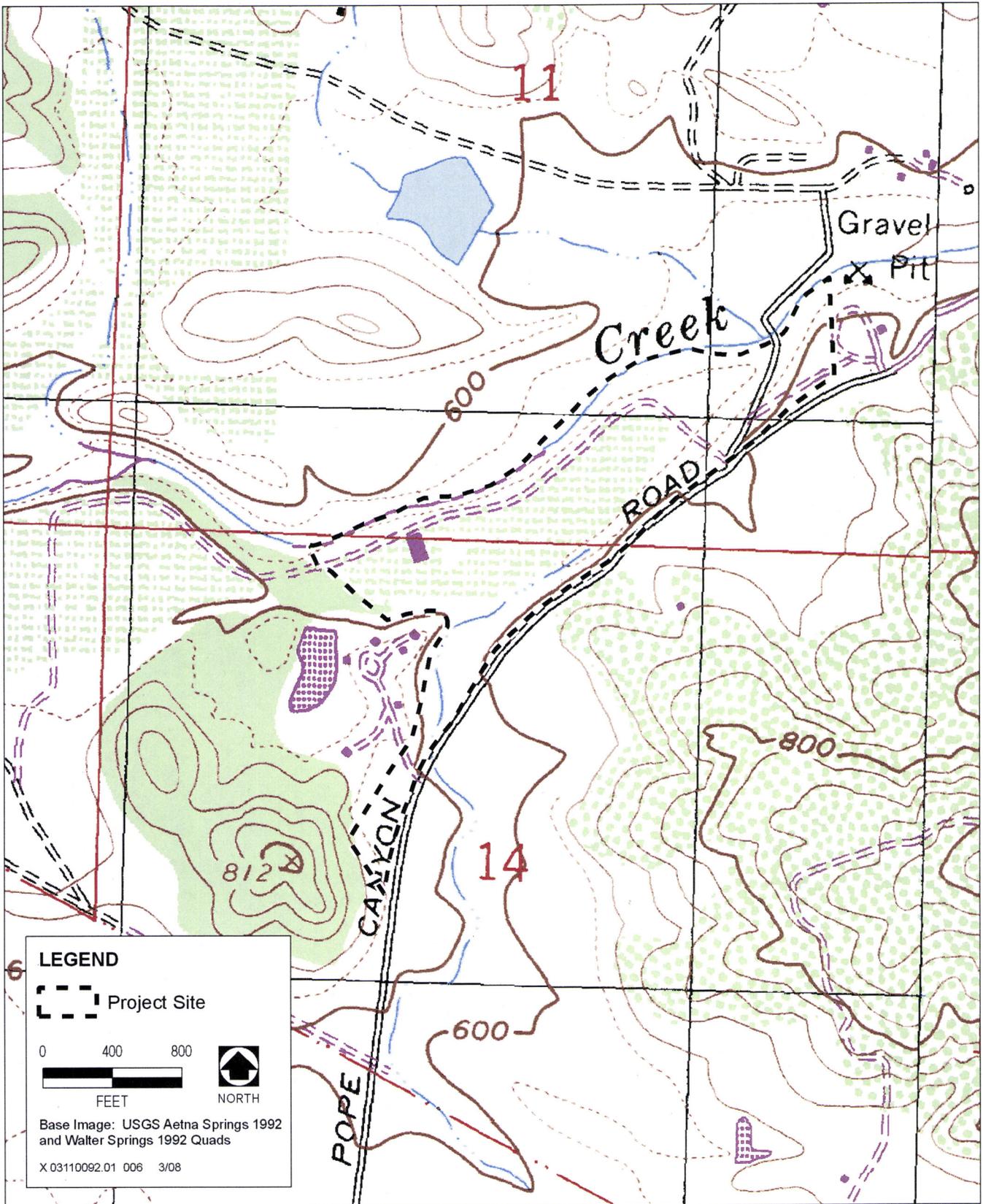
The Narsai David project site covers approximately 58 acres along Pope Canyon Road. It is characterized by mowed annual grassland bordered by drainages and scattered oak woodland. Pope Creek, a Class I perennial stream, flows along the northern boundary of the property, and an Unnamed, intermittent Class II Stream that is tributary to Pope Creek runs along the south and west boundaries of the project site (Figure 3). There is a riparian corridor along Pope Creek and portions of the Unnamed Stream. Seasonal wetlands have been identified along the unnamed tributary.

The surrounding area is composed of both developed and undeveloped land, including residential houses, rangeland, oak savanna, annual grassland, and perennial drainages. An open-sided metal barn, currently housing farming equipment, is located near the western end of the POU. A large pit (approximately 10 feet deep) near the barn contains discarded sheet metal, appliances, tires, concrete, and other trash. No agricultural or other activities have taken place on the property since the time of purchase, except that the pasture grasses are occasionally mowed, disked, and grazed. Currently, no vineyards, water diversions, or water storage facilities are located at the project site.

Primary site-specific studies conducted and used to evaluate potential impacts associated with Applications 29686 and 29687 include the following:

- 1) A cultural resources survey prepared by Tom Origer and Associates
- 2) Biological site reconnaissance prepared by EDAW.
- 3) A wetland delineation prepared by EDAW.
- 4) Water Availability Analysis prepared by James C. Hanson Consulting Civil Engineer.

- 5) Water Availability Analysis and Supplement prepared by Napa Valley Vineyard Engineering, Inc.
- 6) Compliance Plan for Bypass Flow prepared by Napa Valley Vineyard Engineering, Inc.



Source: USGS 7.5' Topo Quad (Aetna Springs)

Project Site Topographic Map

Figure 3

RESPONSIBLE AND TRUSTEE AGENCIES

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 all or some portion of the proposed project:

- ▶ County of Napa – County Use Permit
- ▶ California Department of Fish and Game (DFG) Compliance – Streambed Alteration Agreement, California Endangered Species Act (CESA)
- ▶ California Regional Water Quality Control Board (RWQCB) or State Water Board, Division of Water Rights – Clean Water Act Section 401 Water Quality Certification
- ▶ U.S. Fish and Wildlife Service (USFWS) – federal Endangered Species Act (ESA) Compliance
- ▶ National Marine Fisheries Service (NMFS) – ESA Compliance

ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION		
1. Project Title:	Narsai David Appropriative Water Rights Applications: 29686 and 29687	
2. Lead Agency Name and Address:	State Water Resources Control Board, Division of Water Rights P.O. Box 2000 Sacramento, CA 95812-2000	
3. Contact Person and Phone Number:	Greg Brown, (916) 323-1847	
4. Project Location:	Pope Valley, California, in Napa County	
5. Project Sponsor's Name and Address:	Mr. Narsai David, 2825 Webster Street, Berkeley, CA 94705	
6. General Plan Designation:	Agriculture, Watershed, and Open Space	
7. Zoning:	Agricultural Watershed	
8. Description of Project:	Application 29686 seeks the right to divert 26 af from Pope Creek between March 15 and May 15 for frost protection. Application 29687 seeks the right to divert up to 87 afa from Pope Creek to offstream storage between November 1 and May 15 for irrigation and heat protection of the 50-acre vineyard. Water collected between November 1 and March 15 each year could be used for frost protection.	
9. Surrounding Land Uses and Setting:	The surrounding area is composed of both developed and undeveloped land, including residential houses, rangeland, oak savanna, annual grassland, and perennial drainages.	
10. Other public agencies whose approval is required:	California Department of Fish and Game, California Regional Water Quality Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, County of Napa	
ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:		
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.		
<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture & Forest Resources	<input checked="" type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural Resources	<input checked="" type="checkbox"/> Geology / Soils
<input type="checkbox"/> Greenhouse Gas Emissions	<input checked="" type="checkbox"/> Hazards & Hazardous Materials	<input checked="" type="checkbox"/> Hydrology / Water Quality
<input type="checkbox"/> Land Use / Planning	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Noise
<input type="checkbox"/> Population / Housing	<input type="checkbox"/> Public Services	<input type="checkbox"/> Recreation
<input type="checkbox"/> Transportation / Traffic	<input type="checkbox"/> Utilities / Service Systems	<input checked="" type="checkbox"/> Mandatory Findings of Significance
		<input type="checkbox"/> None With Mitigation

1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing, distant, and immediate views would not be substantially affected by project construction and maintenance of the new facilities and vineyard, which is consistent with the existing visual character on and adjacent to the project site. A total of 15 trees would be removed from the POU to facilitate vineyard development within the POU. Trees to be removed include nine blue oaks (*Quercus douglasii*), three black oaks (*Quercus kelloggii*), two grey pines (*Pinus sabiniana*), and one valley oak (*Quercus lobata*). These trees are scattered within the northeast portion of the POU and are not within the riparian corridor or buffer. Because the trees are small in number and scattered within an area that is surrounded by larger tree stands, their removal from the POU would not significantly change the visual character of the surrounding area. Any views of construction vehicles at the project site would be temporary and would be partially obscured or concealed by existing vegetation and topography. The project would have a less-than-significant impact on the visual character of the area.

2 AGRICULTURAL & FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>II. Agricultural and Forest Resources.</p> <p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) 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.</p> <p>Would the project:</p>				
<p>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Conflict with existing zoning for agricultural use or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>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?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Under the proposed project, existing agricultural land would continue to be used for agricultural purposes. Grazing land would be converted into 50 acres of vineyard. The project would not convert important farmlands to a non-agricultural use or conflict with a Williamson Act contract. Therefore, no adverse impacts on agricultural resources would occur as a result of the proposed project.

The project site contains scattered oak woodland. It is not located in an area zoned for timber production (Timberland Production Zone). Therefore, it would not conflict with existing zoning or cause rezoning of forest land. Development of the POU would involve the removal of up to 15 mature trees, mostly oaks. Because these trees are scattered and their total area (canopy cover) totals less than an acre, and because these trees are not managed as a forest as defined by Public Resources Code section 12220(g), their removal would not constitute a significant loss of forest land or conversion of forest land to non-forest use. The habitat value of these trees is addressed in the Biological Resources section, which includes a permit term requiring replacement of these oak trees that would further reduce this less-than-significant impact.

3 AIR QUALITY

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

The proposed project is located within the San Francisco Bay Area Air Basin, falling under the jurisdiction of the San Francisco Bay Area Air Quality Management District. The San Francisco Bay Area Air Basin is generally affected by regionally high pollution emissions. Air quality in the area is a function of the criteria air pollutants emitted locally, the existing regional ambient air quality, and the meteorological and topographic factors that influence the intrusion of pollutants into the area from sources outside the immediate vicinity. Bay Area regions vary somewhat in pollution emissions, with Napa County emissions being somewhat moderate relative to other regions in the Bay Area³.

Project operations would have no effect on long-term air quality. An electric pump will be used to divert water from Pope Creek to the reservoir. Development of the proposed project would be temporary, occur over a short window of time, and involve minor construction activities, which would include placement of a 2 cfs diversion facility in Pope Creek and a 10-inch PVC pipe to convey water to the offstream reservoir, excavation of the reservoir, and placement of a PVC pipe distribution system to the POU. This construction would involve operation of a single backhoe over several days. Agricultural chemicals used at the POU would be consistent with Napa County Agricultural Commissioner's Office requirements. Construction activities would not conflict with air quality plans, violate air quality standards, result in cumulative impacts, or create objectionable odors. Although small amounts of dust may be generated during some of the construction activities, the project site is located in a lightly populated rural area; no sensitive receptors are located within the vicinity that could be exposed to short-term increases in localized concentrations of dust or use of agricultural chemicals.

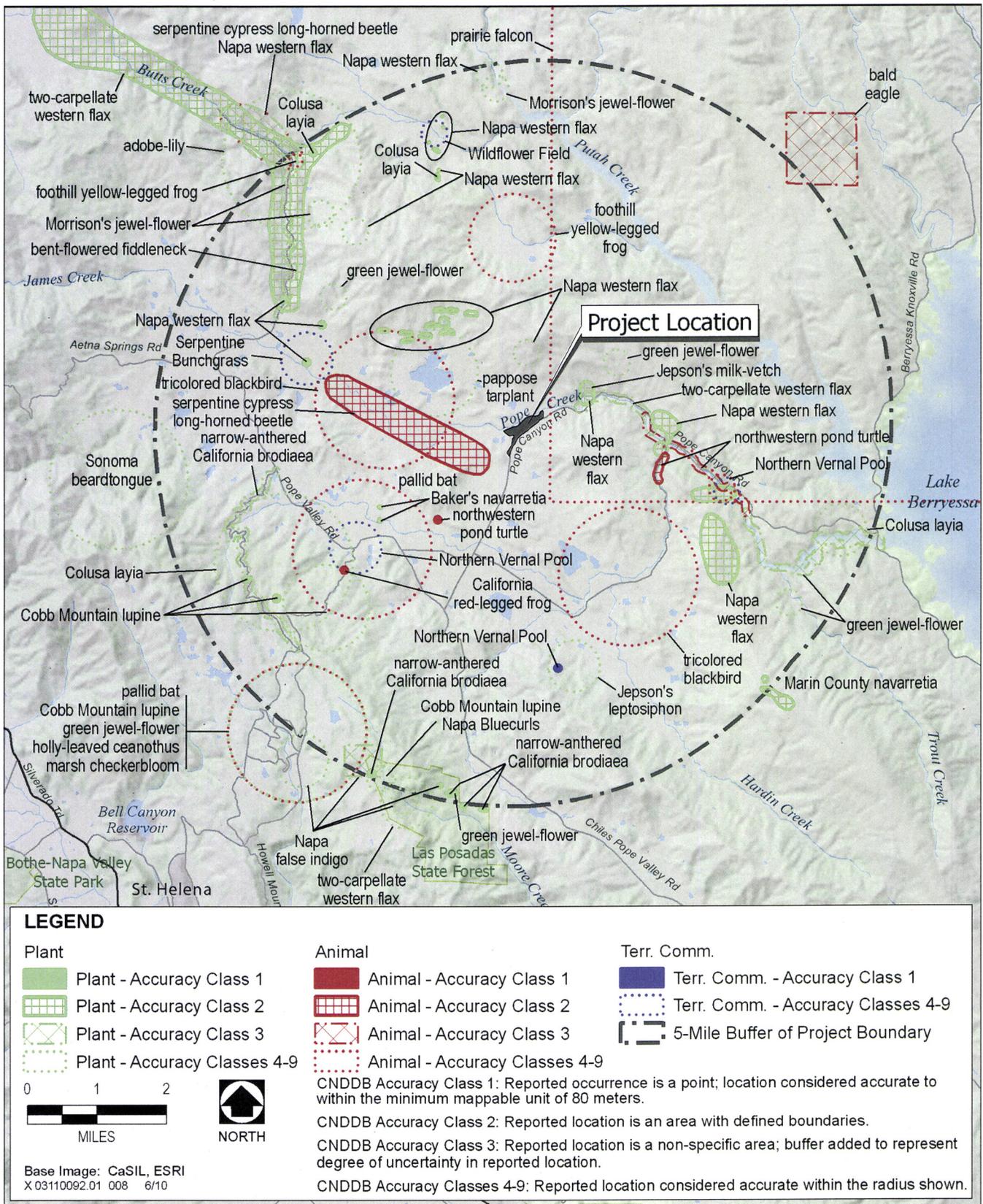
In order to protect air quality, the following term, substantially as follows, shall be included in any permits issued pursuant to Applications 29686 and 29687:

- < Permittee shall submit a detailed Dust Control and Mitigation Plan for review and approval by the Bay Area Air Quality Management District (BAAQMD). Prior to the start of construction or diversion or use of water under this permit or license, Permittee shall submit documentation to the Deputy Director for Water Rights showing that the BAAQMD has approved the Permittee's Dust Control and Mitigation Plan.

4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. 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 California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A reconnaissance-level field survey of the property was conducted by an EDAW wildlife biologist on June 22, 2004. The property is located on the southeastern corner of the USGS Aetna Springs 7.5-minute quadrangle. A recent search of DFG's Natural Diversity Database (CNDDDB) was conducted for sensitive biological resources on the USGS Aetna Springs 7.5-minute quadrangle as well as the eight surrounding quadrangles: Calistoga, Detert Reservoir, Middletown, Jericho Valley, Knoxville, Chiles Valley, St. Helena, and Walter Springs in 2009 (Appendix A). In addition, records of known special-status species occurrences within 5 miles of the project site are shown in Figure 4. Special-status plant and wildlife species identified in these quadrangles were evaluated for their potential to occur in the grassland habitat in the POU or in Pope Creek along the property boundary. As discussed below, several special-status species were eliminated from further consideration due to lack of suitable habitat in the project area.



Source: CNDDDB 2009

Special-status Species Occurrences within 5-mile Search Radius

Figure 4

The vegetation on the Narsai David property consists of annual grassland with riparian woodland along the drainages that correspond to the edges of the property (Figure 5). The grassland is grazed and composed of weedy species, such as wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum* ssp. *leporinum*), and perennial ryegrass (*Lolium perenne*). The woodland includes valley oak (*Quercus lobata*), arroyo willow (*Salix lasiolepis*), and Goodding's black willow (*S. gooddingii*). Pope Creek runs along the north side of the property. Riparian vegetation along Pope Creek also includes sandbar willow (*Salix exigua*), white alder (*Alnus rhombifolia*), Himalayan blackberry (*Rubus discolor*), cattail (*Typha* sp.), and sedge (*Cyperus* sp.). An unnamed intermittent drainage flows through the property from the south, along the southern border, and connects with Pope Creek. The hillsides surrounding the property are dominated by chaparral vegetation with scattered grey pines (*Pinus sabiniana*).

Wildlife diversity in the annual grassland is relatively low because of limited cover and food resources. Common species observed or expected to occur in this habitat include western kingbird (*Tyrannus verticalis*), American goldfinch (*Carduelis tristis*), black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beecheyi*), and western pocket gopher (*Thomomys bottae*).

The riparian woodland provides habitat for more wildlife species due to the valuable cover and food resources associated with the vegetation. The trees may provide suitable nesting or roosting habitat for raptors, such as red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), and barn owl (*Tyto alba*). Native birds such as acorn woodpecker (*Melanerpes formicivorus*), oak titmouse (*Baeolophus inornatus*), white-breasted nuthatch (*Sitta carolinensis*), and black-headed grosbeak (*Pheucticus melanocephalus*) may also forage and breed in the woodland habitat on the property. Black-tailed deer (*Odocoileus hemionus*) and raccoon (*Procyon lotor*) are also expected to use the woodland habitat.

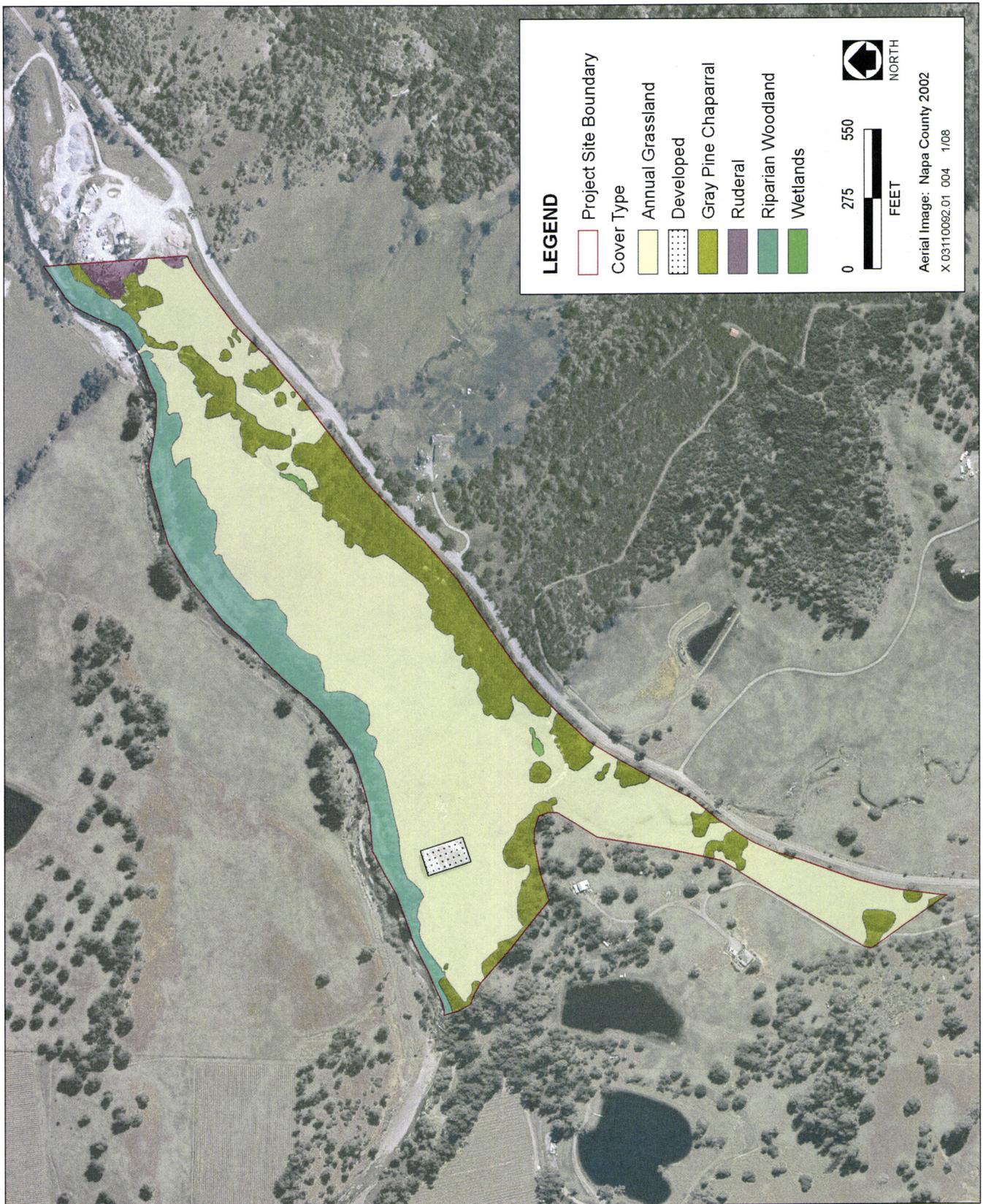
The Unnamed Stream on the southern side of the property contained stagnant water at the time of the reconnaissance visit on June 22, 2004. Surface water was not flowing into Pope Creek. It was classified as an intermittent drainage in the preliminary wetland delineation⁴ and is hydrologically connected to Pope Creek within the project site. Bullfrogs (*Rana catesbeiana*) and unidentified small (approximately 3 inches long) fish were observed in the drainage. Pope Creek is a perennial stream and contained slow-moving water at the time of the site visit. Pacific treefrog (*Hyla regilla*) larvae and foothill yellow-legged frog (*Rana boylei*) larvae and adult were observed in the creek adjacent to the POU. Rainbow trout (*Oncorhynchus mykiss*) (approximately 6 inches long) and unidentified small fish were also observed in the creek.

A) SPECIAL-STATUS SPECIES

Special-status Plants

Nine special-status plant species have potential to occur in the grasslands in the POU: bent-flowered fiddleneck (*Amsinckia lunaris*), Clara Hunt's milk-vetch (*Astragalus clarianus*), Jepson's milk-vetch (*Astragalus rattanii* var. *jepsonianus*), adobe-lily (*Fritillaria pluriflora*), Colusa layia (*Layia septentrionalis*), Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*), Calistoga popcorn-flower (*Plagiobothrys strictus*), Napa blue grass (*Poa napensis*), and saline clover (*Trifolium depauperatum* var. *hydrophilum*).

Clara Hunt's milk-vetch and Calistoga popcorn-flower are federally listed as endangered and state-listed as threatened. Napa blue grass is federally and state-listed as endangered. All nine of the special-status plant species are considered to be rare, threatened, or endangered in California and elsewhere (List 1B species) by the California Native Plant Society (CNPS). Calistoga popcorn-flower and Napa blue grass are not expected to occur in the POU because they are associated exclusively with alkali soils or hot springs, which are not present in the POU.



Source: DWR 2004, EDAW 2004, EDAW 2007

Existing Land Cover

Figure 5

The grasslands in the POU have been occasionally mowed, grazed, and disked since the property was acquired by the current owner. Although this routine disturbance has likely reduced the habitat quality for seven special-status plant species, there is some potential that they could occur on site. Conversion of the grasslands to vineyards, construction of the reservoir, and installation of the irrigation system could result in destruction of plants, their root system, and seed bank. These impacts would be potentially significant. Incorporation of mitigation measures to identify special-status plants prior to ground disturbance and avoid or minimize impacts would reduce the impacts to any special-status plant populations to a less-than-significant level.

Elderberry (*Sambucus* sp.) shrubs have been observed in at least one location near the POU. Impacts to elderberry shrubs that serve as potential habitat to the valley elderberry longhorn beetle (i.e., with stems greater than 1-inch diameter at ground level) would be potentially significant. Incorporation of mitigation measures at the end of the Biological Resources section to identify elderberry shrubs with stems greater than 1-inch diameter at ground level within 100 feet of the POU prior to ground disturbance and avoid or minimize impacts would reduce the impacts to a less-than-significant level.

Special-status Wildlife

Eight special-status wildlife species have potential to occur in Pope Creek, the grasslands in the POU, or in the existing barn in the POU. These species are: northwestern pond turtle (*Actinemys marmorata marmorata*), foothill yellow-legged frog (*Rana boylei*), California red-legged frog (*Rana aurora draytonii*), golden eagle (*Aquila chrysaetos*), prairie falcon (*Falco mexicanus*), burrowing owl (*Athene cunicularia*), pallid bat (*Antrozous pallidus*), and Townsend's western big-eared bat (*Corynorhinus townsendii townsendii*).

California red-legged frog is federally listed as threatened and is a California species of special concern. Revised critical habitat for California red-legged frogs was proposed in September 2008⁵. The proposed project would not affect any areas proposed as critical habitat for California red-legged frog. The nearest proposed critical habitat is the Unit Napa-1, which is over 15 miles to the southeast of the POU. Northwestern pond turtle and foothill yellow-legged frog are California species of special concern. Adult and tadpole foothill yellow-legged frogs were observed in Pope Creek upstream of the POD, adjacent to the POU, during the reconnaissance survey on June 22, 2004. Suitable habitat for northwestern pond turtle, foothill yellow-legged frog, and California red-legged frog occurs in Pope Creek along the northern boundary of the property. However, the Unnamed Stream along the southern boundary is not likely to provide suitable breeding habitat for foothill yellow-legged frog and California red-legged frog due to the intermittent hydrology, but may provide temporary habitat at various times of the year for all three species.

Installation of the water diversion structure and diversion of water from Pope Creek could reduce the aquatic habitat quality for northwestern pond turtle, foothill yellow-legged frog, and California red-legged frog, if present. If the water level in Pope Creek is significantly drawn-down when foothill yellow-legged frog or California red-legged frog egg masses or tadpoles are present, egg masses could desiccate or tadpoles could become stranded. Adult northwestern pond turtle, yellow-legged frog, and California red-legged frog adults also could be stranded if the amount of water diversion causes the creek to go dry. These impacts would be considered potentially significant to northwestern pond turtle, foothill yellow-legged frog, and California red-legged frog. Permit terms outlined at the end of the Biological Resources section, including a requirement for a minimum bypass flow below the diversion structure, would reduce impacts to these species to a less-than-significant level.

Golden eagle and prairie falcon are California species of special concern and are also protected under Section 3503.5 of the California Fish and Game Code, which protects raptors and their nests. The golden eagle is also protected by the Bald Eagle Protection Act and is a fully protected species under the California Fish and Game Code. Golden eagles build large nests in protected trees or on cliffs.

Prairie falcons also use cliffs for nesting. Golden eagle and prairie falcon are not expected to nest in the POU because it does not contain any suitable nest sites, but these raptors may nest in the vicinity of the property. Other raptors, such as red-tailed hawk or white-tailed kite (*Elanus leucurus*), may nest in the scattered trees in the POU. The grasslands in the POU provides potentially suitable foraging habitat for raptors. If active raptor nests are present, removal of 15 trees in the POU could result in destruction of eggs or young and would be considered a potentially significant impact.

Burrowing owls are California species of special concern. The grasslands in the POU provide potentially suitable nesting, wintering, and/or foraging habitat for burrowing owls, though no burrows were observed during the site reconnaissance survey on June 22, 2004. Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels or badgers, but may also use man-made structures, such as culverts, debris piles, or openings beneath pavement. Burrowing owls will forage in a variety of habitats, including cropland, pasture, fallow fields, and sparsely vegetated areas. A Permit term outlined in the Biological Resources section would reduce potential impacts to burrowing owls to a less-than-significant level.

Pallid bat and Townsend's western big-eared bat are California species of special concern. These species roost in mines, caves, or buildings. They forage over a variety of habitats, including oak or riparian woodlands and grasslands. The open-sided barn is a potential roost structure, but no evidence (e.g., guano) of bat use was observed in the structure during the site reconnaissance survey on June 22, 2004. The open rafters and sides of the barn do not appear to provide adequate thermal protection for roosting bats. Therefore, these species are not expected to roost in the barn.

Conversion of 50 acres of grasslands to vineyards and a reservoir would not result in a substantial loss of foraging habitat for golden eagle, prairie falcon, pallid bat, or Townsend's western big-eared bat because grassland habitat is considered common and locally abundant. Loss of 50 acres of grassland habitat would not substantially reduce the habitat of these species, cause their populations to drop below self-sustaining levels, or threaten to eliminate an animal community. In addition, demolition of the barn would not remove an important roosting structure for bat species. Therefore, impacts to these species would be less-than-significant.

SPECIAL-STATUS FISH SPECIES

Watershed Overview

The State Water Board⁶ Policy for Maintaining Instream Flows in Northern California Coastal Streams (Instream Flow Policy guidelines) and the draft Guidelines for Maintaining Instream Flows to Protect Fisheries Resources Downstream of Water Diversions in Mid-California Coastal Streams" (DFG-NMFS Draft Guidelines) were reviewed. DFG-NMFS guidelines for instream flows focus on measures that protect native fish populations with a particular focus on anadromous salmonids and their habitat. The proposed project is not within the "policy area" (coastal streams from the Mattole River to San Francisco and coastal streams entering northern San Pablo Bay, including five counties: Marin, Sonoma, and portions of Napa, Mendocino, and Humboldt). Nevertheless, the Instream Flow Policy guidelines, the 2002 draft DFG-NMFS Draft Guidelines, and the Water Availability Analysis (WAA) and Supplement prepared for this project were tools used as part of this analysis to determine the impact of the proposed project on streamflow in order to evaluate impacts to fisheries resources as required by CEQA. Pope Creek, which is tributary to Lake Berryessa, thence Putah Creek, thence Yolo Bypass, is a Central Valley stream, where guidelines for maintaining instream flows downstream of water diversions in Central Valley streams have not been developed.

The proposed project and Pope Creek are located above the Solano Project, which was completed in 1959. The Solano Project resulted in construction of Monticello Dam on Putah Creek and flooding of the Berryessa Valley to create Lake Berryessa. Putah Diversion Dam, constructed 6 miles downstream

from Monticello Dam, impounded flows in the "interdam reach," creating Lake Solano reservoir. Construction of the two dams effectively isolated the upper watershed including Pope Creek and the project area from anadromous salmonid species. The proposed project is part of allowable depletions that are managed to allow continuation of existing flow releases from Lake Berryessa (refer to discussion below regarding Condition 12 of the Agreement for Settlement of Upper Watershed Reservation Issues in Putah Creek Adjudication).

Anadromous steelhead are considered to have historically spawned in the upper tributaries (including Pope Creek) flowing into Putah Creek above the Berryessa Valley (now Lake Berryessa). Exclusion of salmon and steelhead from their historic upstream spawning and rearing areas in the Putah Creek watershed results in what now is predominantly a resident rainbow trout fishery with sculpin (*Cottus* sp.), Sacramento sucker (*Catostomus occidentalis*), and speckled dace (*Rhinichthys osculus*) often being part of this assemblage. California roach (*Hesperoleucus symmetricus*) are also found in upper Pope Creek. Migratory rainbow trout (*Oncorhynchus mykiss*) with a steelhead-like life history continue to spawn in the upper tributaries⁷.

A total of seven special-status fish species occur or have the potential to occur in lower Putah Creek (below Lake Berryessa) downstream of the project area, which include: Pacific lamprey (*Lampetra tridentate*), Sacramento-San Joaquin roach (*Lavinia symmetricus symmetricus*), Hardhead (*Mylopharodon conocephalus*), Sacramento perch (*Archoplites interruptus*), Sacramento splittail (*Pogonichthys macrolepidotus*), Central Valley steelhead (*Oncorhynchus mykiss*) and Central Valley fall/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*). Of the seven species listed, only the Central Valley steelhead distinct population segment¹ (DPS, formerly evolutionarily significant unit is listed as a federally threatened species. The USFWS de-listed Sacramento splittail from federally threatened status on September 22, 2003. NMFS determined that listing is not warranted for Central Valley fall/late fall-run Chinook salmon. However, it is still designated as a species of concern due to specific risk factors. The four remaining species (Pacific lamprey, Sacramento-San Joaquin roach, hardhead, and Sacramento perch) are considered species of special concern by DFG and/or federal species of concern by NMFS or USFWS.

Stream and fisheries conditions in lower Putah Creek downstream of Lake Berryessa have been affected and shaped by several factors, including the aforementioned construction of the Solano Project and operation of the Putah Diversion Dam. On May 23, 2000, a settlement agreement called the Putah Creek Water Accord (Accord) was reached between Solano County parties and the Yolo County-based parties. It created a new permanent release schedule (Condition 12) that satisfied both parties. Three of the six main elements of the Accord directly affect flows to benefit the creek's fisheries and the remaining three pertain to management of Lower Putah Creek⁸. The Accord elements include:

1. Flows for resident native fishes, which include important spawning and rearing components and guarantee a continuous flow to the Yolo Bypass;
2. Flows that will attract and support Chinook salmon and steelhead;
3. A drought schedule that provides enough water to maintain Putah Creek as a living stream but provides water users relief from other flow requirements;
4. Creation of the Lower Putah Creek Coordinating Committee (LPCCC);
5. Habitat restoration and monitoring funds for Lower Putah Creek; and,

¹ A DPS, or a distinct population segment, is a vertebrate population or group of populations that is discrete from other populations of the species and significant in relation to the entire species. The Endangered Species Act provides for listing species, subspecies, or distinct population segments of vertebrate species.

6. A term requiring Solano County Water Agency to notify riparian water users of the amount of riparian water available in any given year and to prevent illegal water diversions in excess of the amount of riparian water available.

ANALYSIS

Local Effects

Before the State Water Board can issue a water right permit, it must find that there is "unappropriated water available to supply the applicant" (Wat. Code, §1375, subd. (d)). The Applicant prepared and submitted a WAA¹⁰ and Supplement¹¹ to the State Water Board, and a Compliance Plan for Flow Bypass¹². The State Water Board reviewed these analyses and concurred with conclusions that there is water available for the proposed applications¹³.

A cumulative flow impairment index (CFII) analysis was prepared as part of the WAA in accordance with the 2002 draft instream flow guidelines, and the resulting CFII at the POD (also identified as the point of interest [POI]) was calculated to be 18.4%¹⁴. Although the CFII at the POI was calculated to be above the 15% threshold that has been identified as being protective of the hydrograph, the project includes a minimum bypass flow that is equal to that of the February median flow (FMF). The WAA and Supplement calculated the FMF at the POD as 47.1 cfs. Water would be diverted from Pope Creek through a pumping facility, which would be constructed so that water cannot enter the intake structure until there is at least 47.1 cfs flowing in the creek at the POD. This creates a "passive" bypass since bypass requirements will be met automatically through the design of the facility rather than through frequent human actions to operate the facility.

The proposed minimum bypass flows equal to the FMF (which considers all upstream diversions) would result in adequate flows for resident fish spawning and migration in Pope Creek and would be adequate to maintain habitat in Pope Creek for other aquatic life. DFG-NMFS Draft Guidelines recommend using the unimpaired FMF because spawning and incubation of salmonids is generally correlated with discharge, and naturally higher flows must be sustained for a substantial period of time in order to allow effective spawning and to provide incubation habitat. Furthermore, the FMF is a "conservatively high bypass flow" because it conserves the typical winter flows to which native fishes are adapted. The WAA and Supplement concluded that there is sufficient water available for the project (i.e., more than the 113 afa necessary for the applications). State Water Board staff¹⁵ recalculated water availability using average impaired flows (instead of average unimpaired flows) and concluded that the estimated net water available at the POD is 10,042 afa. Although the recalculation resulted in a lower amount of net water available, the State Water Board staff concurred with the WAA and Supplement finding that there is water available for Applications 29686 and 29687.

Given that runoff events are typically large and streamflows decrease dramatically following the end of the winter rainfall season, flows during the diversion season are more likely to be either well below the minimum bypass amounts during dry periods, or well above during rainy periods, based on historical streamflow data for Pope Creek¹⁶. Typical rain events are short-term heavy rainfalls that provide adequate flows to fill area reservoirs, and would allow the diversion to meet the minimum bypass flows. When the rain ceases, streams typically flow at rates that are lower than the estimated bypass requirement, and under these conditions all flows would be bypassed. Thus, because diversion would occur only at higher flows and would cease when flows decrease, local hydrologic impacts from the project are considered to be less-than-significant with mitigation incorporated. See the following section, "Biological Resources," for a discussion of flows and terms, as they relate to fisheries resources.

The proposed project requests diversions from November 1 to May 15 (Application 29687) and from March 15 to May 15 (Application 29686). As noted above, the proposed project is designed to maintain

minimum bypass flows; diversion would occur only at higher flows and will cease when flows decrease to prevent any reductions to local hydrology below 47.1 cfs for this project. The presence of the Solano Project facilities below the proposed project would prevent anadromous fish from accessing the project site now or in the future. The instream bypass flows would be protective of resident fish and aquatic resources in Pope Creek. Although the season of diversion is proposed to extend into May 15 annually, water cannot enter the intake structure unless there is at least 47.1 cfs flowing in the creek at the POD. Thus, diversion would only occur during rain and high-flow events due to the instream bypass flow requirement. Runoff events in the project area are typically large, and streamflows decrease dramatically following the end of the winter rainfall season. Flows during the diversion season are more likely to be either well below the minimum bypass amounts during dry periods, or well above during rainy periods. Typical rain events are short-term heavy rainfalls that provide adequate flows to fill area reservoirs, and would allow the diversion to meet the minimum bypass flows. When the rain ceases, streams typically flow at rates that are lower than the estimated bypass requirement, and all flows would be bypassed under these conditions. Thus, because diversion would occur only at higher flows and would cease when flows drop, local impacts to resident fish and other aquatic resources from the project would be less-than-significant. However, these impacts would be potentially significant if the proposed project was not constructed and operated as described. Consequently, mitigation in the form of permit terms is necessary to reduce potentially significant impacts to less-than-significant levels (see "Permit Terms" below).

The diversion structure would be constructed to maintain upstream and downstream fish movement and passage past the point of diversion. However, it is possible that fish could be entrained into the diversion if no screens are in place. Any fish entrained into the diversion could suffer injury, direct mortality, and/or be conveyed into the irrigation reservoir where conditions for survival may be unsuitable (e.g., water quality, water temperatures, predators). This would be a potentially significant impact. Mitigation in the form of permit terms that require the diversion intake to be screened would reduce this potentially significant impact to less-than-significant level (see "Permit Terms" below).

Downstream Effects

As discussed under "Watershed Overview" above, Solano Project facilities resulted in the current highly regulated streamflow regime in Putah Creek. Following construction of the Solano Project, releases from the Putah Diversion Dam to lower reaches of Putah Creek were initially made under a "live stream" operating rule. Releases were set to equal the inflow to Lake Berryessa, or the amount of release required to maintain a flow of 5 cfs at Old Davis Road, whichever was less. In 1970 and 1978, the State Water Board approved new release schedules which remained in effect until 2000 when the Putah Creek Water Accord (Accord) was implemented. The Accord regulates seasonal instream flow and release patterns from Monticello Dam to create as natural a flow regime as feasible and to maintain a living stream for the benefit of fish, wildlife, and riparian vegetation from the Putah Diversion Dam to the Yolo Bypass. The focus of the Accord is to protect and enhance native resident and anadromous fish populations and maintain riparian vegetation. Lake Berryessa, with a total storage of 1.6 million af, is large relative to the total runoff. Water stored in Lake Berryessa provides for extended streamflow augmentation to Putah Creek throughout the summer compared to historical streamflow patterns. Median flows during August through October are also higher since the Solano Project operations began. As a result of the Accord, streamflow is now expected to always be present from the Putah Diversion Dam to the Yolo Bypass although significant periods of reduced flows in lower Putah Creek occurred prior to the Accord at various times during the 1987 through 1992 drought years.

Pope Creek contributes water to Lake Berryessa, and the proposed project would reduce inflows to Lake Berryessa by up to 113 afa per year. The reduction of 113 afa, taken during higher flow periods would minimally reduce the amount of water stored in Lake Berryessa, when the lake is not spilling. Diversions upstream of Lake Berryessa are subject to a watershed diversion limit established by the State Water Board, and no additional diversions are allowed once the limit is reached. The proposed

project is part of the allowable depletion. The proposed project would not affect the amount of water or timing of release downstream of Monticello Dam because flows are regulated by the Accord, and storage in Lake Berryessa is managed to meet the requirements of the Accord. Thus, because the proposed project is above Solano Project dams, the proposed project would not affect instream flows in habitat accessible to anadromous salmonids in lower Putah Creek. The proposed project would not cause significant adverse impacts to any special-status species, including steelhead and Chinook salmon downstream of Lake Berryessa in lower Putah Creek or the Yolo Bypass. Because the diversion would be managed for conservative bypass flows (FMF) that considered other diversions in the watershed above the POD, and because the diversion will only operate during higher flow periods, Pope Creek would continue to contribute flows to Lake Berryessa and provide habitat for aquatic life.

B) RIPARIAN HABITAT AND OTHER SENSITIVE NATURAL COMMUNITIES

The proposed diversion structure could result in the alteration of the bed and bank of a stream. The diversion structure would require work that disrupts a stream, which would likely be regulated by DFG under Section 1600 through 1616 of the Fish and Game Code. It may also result in disturbance to riparian vegetation that occurs adjacent to the diversion structure site. Removal of 15 trees (see Table 1 below) in the northeast portion of the POU would not significantly reduce wildlife habitat because these trees are relatively isolated from intact riparian or oak woodland. An Oak Tree Mitigation Plan will be required, however, to compensate for loss of oak tree habitat. Mitigation in the form of permit terms will bring potentially significant impacts to less-than-significant levels (see "Permit Terms" below and additional discussion under "Local Polices, Ordinances, and Conservation Plans").

Species	Size (Diameter Breast Height, Inches)						
	6	8	12	18	24	30	48
Black oak			1	1	1		
Blue oak	1	1		3	2	2	
Valley oak							1
Grey pine			2				

Source: Lincoln AE, LLC 2008

C) FEDERALLY PROTECTED WETLANDS

The proposed diversion structure would result in the hydrologic interruption and possible fill of federally protected jurisdictional Waters of the United States. A jurisdictional delineation was verified by the San Francisco District of the U.S. Army Corps of Engineers (USACE) on August 16, 2005 (File Number 29374N) and will expire on August 16, 2010. The jurisdictional Waters of the United States on the project site are shown in Table 2.

Habitat	Wetlands	Hydrological Connectivity *	Adjacency *	Acreage	Total
Seasonal Wetland (SW)	SW 1	ID1 (F)		0.07	
	SW 2	ID1 (F)		0.06	
	SW Total			0.13	

Table 2					
Acreages of Jurisdictional Waters of the United States on the Project Site					
Habitat	Wetlands	Hydrological Connectivity *	Adjacency *	Acreage	Total
Intermittent Drainage (ID)					
	ID1	Pope Creek (D)		1.56	
	ID Total			1.56	
Perennial Drainage (Pope Creek)					
	PD1	James Creek (C), Swarts Creek (C), Lake Berryessa (D)		4.43	
	PD Total			4.43	
Total – Waters of the United States including Wetlands					6.12
* Adjacency / Hydrological Connection to USACE Jurisdictional Waters of the United States					
F = Connects by surface flow during flood events					
C = Contiguous with, or located within, the listed feature.					
D = Connected by ditch or other drainage feature.					
CV = Connected, directly or indirectly by culvert or storm drain.					

The diversion structure would require work that disrupts a drainage, which is considered to be jurisdictional Waters of the United States by the USACE. It may also result in disturbance to any instream wetlands that occur in this drainage. If no mitigation were applied, this potential impact on wetlands and other jurisdictional waters of the United States would be considered potentially significant.

For protection of federally protected jurisdictional Waters of the United States and wetlands, special permit terms will be included in any permits or licenses issued pursuant to Applications 29686 and 29687 (listed below under "Permit Terms"). Implementation of these mitigation measures would reduce all potentially significant impacts to less-than-significant levels.

D) WILDLIFE CORRIDORS AND NURSERY SITES

Wildlife corridors are features that provide connections between two or more habitat patches that would otherwise be isolated and unusable. Based on the reconnaissance field survey, there are no wildlife corridors or nursery sites present on the project site other than the riparian habitat along the Unnamed Stream and Pope Creek. None of the project facilities would disrupt wildlife movements. Therefore, construction and operation of the proposed project would not interfere substantially with the movement of wildlife or impede the use of a wildlife nursery site. These impacts are less-than-significant.

E, F) LOCAL POLICIES, ORDINANCES, AND CONSERVATION PLANS

Napa County does not have an ordinance that specifically protects heritage trees, oak trees, or oak woodlands; however, the Napa County General Plan directs the county to retain existing oaks as part of residential, commercial, industrial, and agricultural land division approvals. Napa County code of ordinances (18.108.100) regulates vegetation removal within erosion hazard areas (areas of land having slopes over 5 percent) to preserve the natural resources of the county. If the POU is determined to have a slope over 5 percent, then an erosion control plan would be required by Napa County and removal of 15 trees within this area would be a potentially significant impact. The permit terms described below bring the potentially significant impacts to less-than-significant levels.

Napa County code of ordinances also regulates by permit all development activities within riparian zones (16.04.060). The POU includes a 45-foot setback from the streams on-site and no vegetation would be removed from the riparian zone.

The proposed project does not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan.

PERMIT TERMS

In order to reduce the potentially significant impacts to special-status plants and to wetlands and other jurisdictional Waters of the United States to a less-than-significant level, permit terms, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 29686 and 29687:

- < *Prior to the start of construction, or diversion or use of water under this permit, Permittee shall obtain the appropriate permit from the United States Army Corps of Engineers (USACE) and file a copy with the Division of Water Rights. If a permit from the USACE is not necessary for this permitted project, the Permittee shall provide the Division of Water Rights with a letter from the USACE affirming that a permit is not needed.*

- < *Before the initiation of any ground-disturbing or vegetation-clearing activities, the Permittee shall retain a qualified botanist, acceptable to the Deputy Director for Water Rights, to conduct a survey for special-status plant species with potential to occur within the place of use. The botanist shall conduct the survey at the appropriate time of year when the species would be in flower and therefore clearly identifiable. Based on the blooming periods for the species with potential to occur in the place of use, an early blooming-period survey in late March to early April and a late blooming-period survey in late May to June would be appropriate to target all seven special-status plant species. The botanist shall perform an updated California Natural Diversity Database query for special-status plant species prior to the survey. Because potential direct impacts to special-status plants are only associated with construction of the proposed bridge crossing, reservoir, installation of the irrigation system, and planting of vineyards, the survey shall be restricted to the appropriate area of potential direct impact.*

If no special-status plants are found during the focused survey, the botanist shall document the findings in a letter report to the Permittee and State Water Board, and no further mitigation will be required. If special-status plants are found, a map delineating the locations of the plants shall be submitted to the Deputy Director for Water Rights prior to any ground-disturbing or vegetation-clearing activities and the following measures shall be implemented:

- a. *Permittee shall not spray herbicides within 50 feet of the special-status plant population(s);*
- b. *Permittee shall not allow any land disturbance within 50 feet of the special-status plant population(s).*
- c. *Permittee shall permanently identify the plant population within the boundaries of the place of use by surrounding the site with flagged construction stakes to be spaced and maintained at a maximum distance of 30 feet apart.*
- d. *Permittee shall restrict cattle or other domestic stock access to the special-status plant population(s) within the boundaries of the place of use.*
- e. *Permittee shall prepare, or cause to be prepared, a long-term habitat conservation plan, in consultation with the California Department of Fish and Game (DFG) and/or United*

States Fish and Wildlife Service (USFWS) if required, for the protection of the special-status plant population(s) within the boundaries of the place of use. The plan shall be subject to review, modification, and approval by the Deputy Director for Water Rights. Amendments to the said plan shall be prepared in consultation with the DFG and USFWS and a copy of any such amendments shall be submitted to the Deputy Director for Water Rights.

- < Permittee shall allow representatives of the Division of Water Rights reasonable access upon notification of the Permittee or the Permittee's agent for the purpose of verifying compliance with the conditions of the permits.*
- < These permit terms shall remain in effect as long as water is being diverted by the Permittee (or successors-in-interest) under any permits or licenses issued pursuant to Applications 29686 and 29687.*

In order to reduce the potential impacts to the habitat quality of northwestern pond turtle, foothill yellow-legged frog, and California red-legged frog; and impacts to foothill yellow-legged frog egg masses and tadpoles to a less-than-significant level, and for the protection of stream and riparian habitat, permit terms, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 29686 and 29687:

- < Permittee shall adhere to the June 8, 2007, Compliance Plan for Flow Bypass (Compliance Plan) (NVVE 2007) approved by the Division of Water Rights and shall comply with the flow bypass term specified in this permit. Diversion and use of water prior to approval of the Compliance Plan and the installation of facilities specified in the Compliance Plan is not authorized. Permittee shall be responsible for all costs associated with installing and maintaining all flow bypass and monitoring facilities described in the Compliance Plan. The monitoring data shall be maintained by the Permittee for 10 years from the date of collection and made available to the Deputy Director for Water Rights upon request. Any non-compliance with the terms of the permit shall be reported by the Permittee promptly to the Deputy Director for Water Rights within 15 days of the violation.*
- < Permittee shall establish a setback within 45 feet measured from the top of the bank of Pope Creek (within the Permittee's property) to minimize disturbance to potential aquatic, aestivation, and /or basking habitat for foothill yellow-legged frog, California red-legged frog, and Western pond turtle. 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, with the exception of occasional equipment access reasonably necessary for continued operation of the vineyard. Equipment access through the setback shall be limited to previously disturbed areas of the setback when possible and is only allowed when other means of access are not available. 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 is 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.*
- < The Permittee shall obtain approval of the United States Fish and Wildlife Service (USFWS), Sacramento Endangered Species Office, and the California Department of Fish and Game prior to any future reservoir dredging operations. Permittee shall submit to the Deputy Director for Water Rights evidence of agencies' approval prior to any future reservoir dredging operations. The Permittee shall refrain from disturbing emergent (wetland) vegetation in the reservoir during dredging operation.*

- < *A biologist, whose qualifications are acceptable to the Deputy Director for Water Rights, shall be present during any construction work within the stream channel to ensure that no take of foothill yellow-legged frog (*Rana boylei*) occurs. If foothill yellow-legged frogs are encountered during construction, Permittee shall cease construction and ground disturbing activities in areas within 250 feet of the location where foothill yellow-legged frogs are present and shall contact the California Department of Fish and Game (CDFG). Prior to restarting construction activities, Permittee shall submit to the Deputy Director for Water Rights evidence of CDFG approval to continue construction.*
- < *This permit does not authorize any act which results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a "take" will result from any act authorized under this water right, the permittee shall obtain authorization for an incidental take prior to construction or operation of the project. Permittee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this permit.*

In order to reduce the impacts to nesting raptors to a less-than-significant impact, the following measures shall be taken by the Permittee:

- < *If trees are to be removed between February 1 and September 30, a biologist whose qualifications are acceptable to the Deputy Director for Water Rights, shall conduct a pre-construction survey for the purpose of identifying nesting bird species. The pre-construction survey shall include all potential nesting habitat within 500 feet of proposed construction areas. The survey shall be conducted no more than 14 days prior to the beginning of construction activities and a report of the findings shall be submitted to the Deputy Director for Water Rights prior to construction. If an active raptor nest is found during the pre-construction survey, the Permittee shall notify the California Department of Fish and Game. 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.*

In order to avoid potentially significant impacts to burrowing owls, the following measures shall be taken by the Permittee:

- < *If ground disturbing activities such as trenching or ripping are to occur in the place of use, a qualified biologist acceptable by the Deputy Director for Water Rights shall conduct a burrowing owl (*Athene cunicularia*) burrow survey 90 days prior to the ground-disturbing activity at the place of use. The biologist shall submit a survey protocol to be approved by the Deputy Director for Water Rights prior to conducting the burrowing owl/burrow survey. If burrowing owls or suitable habitat/nesting burrows are detected, the results of the survey shall be provided to the California Department of Fish and Game (CDFG) and Deputy Director for Water Rights and the biologist shall develop a CDFG approved mitigation/conservation plan 30 days prior to any ground-disturbing activities in the place of use. The survey report shall include a map indicating the locations of any burrowing owl(s) or owl sign. If no burrowing owls or suitable habitat/nest burrows are found, the biologist shall submit a report of the finding to the Deputy Director for Water Rights and no burrowing owl conservation measures will be required.*

In order to comply with local ordinances regulating vegetation removal, the following measures shall be taken:

- < *If the place of use is determined to be within an erosion hazard area, then a discretionary permit is required from Napa County for removal of vegetation. Existing vegetation shall be retained to the extent feasible. If the place of use is not within an erosion hazard area, then no further mitigation is required as stipulated by Napa County regulations.*

- < *If native oak trees 6 inches in diameter or larger, measured at diameter at breast height (DBH), are to be removed from the place of use, a qualified biologist approved by the Deputy Director for Water Rights shall prepare an Oak Tree Mitigation and Monitoring Plan for replacement of trees in undeveloped portions of the property at a 3:1 ratio. Potential planting areas for these trees include riparian corridors outside of protected buffer areas, areas adjacent to remaining patches of oak woodland and foothill pine forest, and ruderal grassland areas where appropriate. A planting plan shall be developed by a biologist whose qualifications are acceptable to the Deputy Director for Water Rights depicting the locations where the mitigation trees will be planted. The planting plan shall include planting specifications for replacement trees, irrigation methods, maintenance and monitoring requirements, and success criteria for mitigation plantings. The mitigation area(s) shall be monitored for a minimum duration of 5 years. Failed plantings shall be replaced to achieve net success criteria of 80 percent survival after five years. Annual reports shall be submitted to the Division of Water Rights beginning with the end of the first year after the mitigation area(s) have been established and continuing until mitigation requirements are completed. The mitigation requirement will be deemed complete at the end of 5 years if the success criteria have been met. Trees surviving five years shall be maintained in perpetuity. Photo documentation showing the results of the tree replacement shall be submitted to the Deputy Director for Water Rights after the mitigation requirements have been completed. All photos shall be dated and the location of the photos shown on a drawing or map of the place of use. Native oak trees to be retained or designated for retention shall be protected through the use of barricades or other appropriate methods during the construction phase. Native oak trees over 6 inches DBH to be removed shall be replaced with an equivalent kind, quality, and quantity at a ratio of 3:1.*

For the protection of stream and riparian habitat, the following measures shall be taken:

- < *Permittee shall establish a setback of 45 feet along Pope Creek and the Unnamed Stream within the Permittee's property, except within the diversion structure construction zone during the construction period. The stream setback shall be measured from the top of the bank on both sides of the stream. No activity shall occur within the setback area, including, but not limited to, grading, herbicide use, roads, fencing, storage areas, and irrigation, with the exception of occasional equipment access necessary for continued operation of the vineyard. Permitted equipment access shall be limited to only necessary activities with efforts to minimize disturbance of vegetation and soils. Additionally, annual mowing of grasses to reduce fire hazard will be allowed in a 20-foot- wide area adjacent to vineyards, provided that rooted vegetative cover is maintained year-round in mowed areas. Permittee shall restrict cattle or other domestic stock access to the riparian area. The setback area shall be protected from disturbance to promote and encourage the recruitment of native riparian shrub and tree species. Planting of native riparian species is also encouraged to provide additional protection to Pope Creek and the Unnamed Stream. These setback requirements shall remain in effect as long as water is being diverted under any permits or licenses issued pursuant to Applications 29686 and 29687.*

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

Implementation of the permit conditions below, in conjunction with other permit conditions herein, would reduce all potentially significant impacts to fisheries resources to less-than-significant impacts. For protection of fish and wildlife, special permit terms, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 29686 and 29687:

- < *No water shall be diverted under this permit until the Permittee has installed a device in Pope Creek, satisfactory to the State Water Board, which is capable of measuring the bypass flow required by the conditions of this permit. The device and the location of the monitoring station shall be reviewed and must be satisfactory to the Deputy Director for Water Rights, before any construction is undertaken. Permittee shall furnish evidence which substantiates that the streamflow measuring device has been installed prior to diversion of water under this permit. If the measuring device is rendered inoperative for any reason, all diversions shall cease until such time as the device is restored to service. Said measuring device shall be properly calibrated, operated, and maintained by the Permittee (or successors-in-interest) as long as any water is being diverted under any permits or licenses issued pursuant to Applications 29696 and 29687.*
- < *For the protection of fish and wildlife, under all bases of right, Permittee shall during the period from November 1 of each year through May 15 of the succeeding year, bypass a minimum of 47.1 cubic feet per second at the point of diversion on Pope Creek. Under all bases of right, Permittee shall bypass the entire stream flow outside of the season of diversion.*
- < *No water shall be diverted under this permit except through a fish screen on the intake to the diversion structure, satisfactory to meet the physical and operational specifications of the California Department of Fish and Game to protect fisheries resources. Construction, operation, and maintenance costs of the required facility are the responsibility of the Permittee.*
- < *Permittee shall not stock and shall not allow others to stock non-native fish in the reservoir. Permittee shall monitor on a yearly basis the reservoir authorized under this permit, to make sure that no non-native fish, non-native frogs, or other exotic aquatic predators are accidentally introduced. Permittee shall eliminate any non-native fish or non-native frogs found by draining the reservoir where they were found and gigging non-native frogs found by hand. Permittee shall prepare annually a report describing the methodology used to survey the reservoir for the presence of exotic species, the dates when the surveys occurred, and what actions were taken if exotic species were found. These exotic species monitoring reports shall be submitted to the Division of Water Rights with all required Reports of Permittee, Reports of Licensee or whenever requested by the staff of the Division of Water Rights. Permittee shall post signs in English and Spanish at the reservoir stating that the introduction of non-native fish and non-native frogs into the reservoir is prohibited.*

In order to reduce potential impacts on valley elderberry longhorn beetle by avoiding and minimizing impacts on elderberry shrubs with stems greater than 1-inch diameter at ground level, the following measures shall be implemented:

- < *Before the initiation of any ground-disturbing or vegetation-clearing activities, the Permittee shall retain a qualified biologist, acceptable to the Deputy Director for Water Rights, to conduct a survey to determine if elderberry shrubs with stems greater than 1-inch diameter at ground level are present within 100 feet of the place of use. The findings of the survey shall be submitted in a report to the Deputy Director for Water Rights at least two weeks before project construction begins.*

If no elderberry shrubs with stems greater than 1-inch diameter at ground level are found during the focused survey, the biologist shall document the findings in a letter report to the Permittee and State Water Board, and no further mitigation will be required.

If elderberry shrubs with stems greater than 1-inch diameter at ground level are present within 100 feet of the place of use, avoidance and minimization measures such as the installation of orange barrier fencing shall be implemented to ensure that a 100-foot buffer is maintained between construction areas and elderberry shrubs. Photographs of any elderberry shrubs with stems greater than 1-inch diameter at ground level should be included in the survey report.

5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Research into cultural resource issues for the proposed project consisted of a records search of pertinent cultural resource information and field research of the project footprint conducted by Tom Origer & Associates during October 2001 and December 2002. Prior to fieldwork, a records search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS). All findings were reported in "A Cultural Resources Survey for Water Right Applications 29686 and 29687 (Narsai David) Pope Valley, Napa County, California"¹⁷ and a letter report from Tom Origer and Associates to Napa Valley Vineyard Engineering, Inc.¹⁸ Both are on file at the State Water Board. A summary of the past investigation directly related to the project site is presented in Table 1 below and copies are on file at the Division of Water Rights.

A previous investigation for a parcel split¹⁹ inventoried a small portion of the project site where two prehistoric sites were located. There is a previously documented site, CA-NAP-255, located outside of the current project site but within the property; the archaeological specimens displaced from CA-NAP-255 are considered background materials and not a bona fide site worthy of preservation. A newly identified resource, the Metal Barn Site, was not formally documented until subsequent field reconnaissance conducted in 2001²⁰ formally documented the Metal Barn Site, and also discovered archaeological specimens found near the southwest portion of the project site, displaced from the previously recorded site (CA-NAP-255).

This deposit of prehistoric artifacts at the Metal Barn site was first described as a disturbed diffuse scatter of flaked and groundstone tools²¹. Flaked stone artifacts included a few well-made obsidian tools, a projectile point, and scraping and cutting tools fashioned from prepared cores and flakes. Groundstone and battered stone artifacts were described as manos, pestle fragments, and battered cores. Flynn indicated that the densest artifact concentration was located in the vicinity of the barn. Formal recordation indicated that the site is within the proposed place of use, and measures approximately 180 by 112 meters²². Subsequent observations revealed a continuous distribution of flaked and groundstone artifacts within a dark brown to mottled brown depositional matrix²³. Based upon surface observations, it was recommended that the site possessed the potential to yield data that may contribute to a further understanding of prehistory, and the deposit was recommended as "significant" pending further subsurface testing and assessment^{24 25}.

Implementation of the permit terms described below reduces the potentially significant impacts to less-than-significant levels.

PERMIT TERMS

In order to avoid and/or mitigate potential impacts to the resource located within the project footprint, a permit term, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 29686 and 29687:

- < *The prehistoric site identified as the Metal Barn Site in the report titled, "A Cultural Resources Survey for Water Right Applications A29686 and A29687 (Narsai David) Pope Valley, Napa County, California" (Quinn and Origer 2001) shall not be included in the place of use and shall be fenced in order to eliminate current and future impacts and preserve site integrity. An archeologist who has been approved by the California Historical Information System to work in the area, and who is acceptable to the Deputy Director for Water Rights, shall determine the boundaries of the sites and placement of permanent fencing. The archeologist shall be present during installation of the fencing to prevent any inadvertent damage to the site. The boundaries of the permanent fencing shall include a buffer zone of 15 feet at a minimum around the site. Permanent fencing, with a height of 5 feet at a minimum ensuring that it is clearly visible for heavy equipment operators, shall be installed prior to project-related activities and shall remain in place for as long as water is being diverted. Future developments at this site may be permitted only if a qualified archaeologist is retained by the Permittee to design and undertake investigations to determine site significance, and if necessary develop an appropriate mitigation plan, which must be approved by the Deputy Director for Water Rights.*

To avoid and/or mitigate potentially significant impacts to previously undiscovered cultural resources located in the areas of proposed vineyard expansion, a permit term, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 29686 and 29687:

- < *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.*

There is the possibility that an unanticipated discovery of human remains could occur during project construction and operations. The following term will be included, substantially as follows, in any permits and licenses issued pursuant to Applications 29686 and 29687:

- < *If human remains are encountered, Permittee shall comply with Section 1564.5(e)(1) of the CEQA Guidelines and the Health and Safety 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.*

6 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. 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 on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project would not expose people or structures to substantial adverse effects from a rupture of a known earthquake fault, seismic-related ground shaking, or failure because the project is a water rights project focused on the addition of a water diversion facility. The project site is not located on a known earthquake fault, nor does it fall within an Alquist-Priolo fault-rupture hazard zone.²⁶ The nearest fault is an unnamed pre-quaternary fault that runs northwest to southeast about 1/3 mile from the project site to the northeast. An unnamed north-south fault that is part of the Hunting Creek-Berryessa Fault System is located approximately 1.5 miles east of the project site.²⁷ The project does not propose housing or other habitable structures. Furthermore, a licensed California Engineer would design the diversion facility. The project site is located in an area of Moderate-to-High potential for landslides, as shown in the Napa County Disaster Relief Map.²⁸ However, due to the age and distance of these faults, the relatively flat nature of the project site, and the nature of the proposed project, there are no seismic-related ground failure or landslide impacts.

The proposed project does not include any septic tanks or alternative wastewater disposal systems. Therefore, there are no impacts related to soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

The following descriptions are qualitative summaries of the major components of soil types found on the project site based on the Soil Survey for Napa County (NRCS 2007):

Map Unit: 112—Bressa-Dibble complex, 5 to 15 percent slopes: The Bressa component makes up 65 percent of the map unit. Slopes are 5 to 15 percent. This component is on hills. The parent material consists of residuum weathered from sandstone and shale. Depth to a root restrictive layer, bedrock (paralithic), is 30 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is moderate. This soil is not flooded and is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R015XD024CA Fine Loamy ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria.

The Dibble component makes up 25 percent of the map unit. Slopes are 5 to 15 percent. This component is on hill slopes. The parent material consists of residuum weathered from sandstone and shale. Depth to a root restrictive layer, bedrock (paralithic), is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is high. This soil is not flooded and is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R015XD024CA Fine Loamy ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria.

Map Unit: 154—Henneke gravelly loam, 30 to 75 percent slopes: The Henneke component makes up 85 percent of the map unit. Slopes are 30 to 75 percent. This component is on hills. The parent material consists of residuum weathered from serpentinite. Depth to a root restrictive layer, bedrock (lithic), is 10 to 20 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is moderate. This soil is not flooded and is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. This component is in the R015XD128CA Rocky Serpentine ecological site. Nonirrigated land capability classification is 7e. Irrigated land capability classification is 7e. This soil does not meet hydric criteria.

Map Unit: 161—Maxwell clay, 2 to 9 percent slopes: The Maxwell component makes up 85 percent of the map unit. Slopes are 2 to 9 percent. This component is on alluvial fans, rims, and basins. The parent material consists of alluvium derived from serpentinite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is high. Shrink-swell potential is high. This soil is not flooded and is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R015XD123CA Serpentine ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria.

Map Unit: 164—Millsholm loam, 15 to 30 percent slopes: The Millsholm component makes up 85 percent of the map unit. Slopes are 15 to 30 percent. This component is on hills. The parent material consists of residuum weathered from sandstone and shale. Depth to a root restrictive layer, bedrock (lithic), is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded and is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This

component is in the R015XD070CA Shallow Fine Loamy ecological site. Nonirrigated land capability classification is 6e. Irrigated land capability classification is 6e. This soil does not meet hydric criteria.

Map Unit: 174—Riverwash: The Riverwash is a miscellaneous area.

Map Unit: 182—Yolo loam, 2 to 5 percent slopes: The Yolo component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on alluvial fans. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded and is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Soils at the project site are considered expansive as defined in Table 18-1-B of the Uniform Building Code (1997); however, the proposed project would not create substantial risks to life or property. The proposed project does not involve any new construction of structures that would be impacted by liquefaction or expansive soil; therefore, there would be no impacts from seismically related liquefaction or expansive soil hazards.

The POU under consideration for Applications 29686 and 29687 is located on a relatively flat area and due to the nature of the project there would be no impacts from expansive soils. The proposed project would implement Best Management Practices (BMPs) to control erosion during construction activities in order to minimize potential erosion impacts from construction activities.

PERMIT TERMS

To ensure that expansive soils and erosion-related impacts would be less than significant, the following permit terms, substantially as follows, shall be included in any water right permits or licenses for Applications 29686 and 29687:

- < *In order to control and minimize potential erosion during construction activities, Best management practices (BMP) shall be prepared by a licensed civil engineer and submitted to and approved by the Deputy Director for Water Rights, prior to starting construction. BMPs for controlling erosion may include, but are not limited to the following: (a) vegetation removal shall be limited to the minimum amount necessary to accommodate installation of the diversion facility; (b) temporary erosion control measures, such as silt fences, staked straw bales, and temporary revegetation, shall be installed in disturbed area, and; (c) sediment shall be retained on-site by sediment basins, traps, siltation barriers, or other appropriate measures as needed.*

7 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Greenhouse Gas Emissions. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Currently, the California Air Resources Board (ARB) and the San Francisco Bay Area Air Quality Management District have not identified a significance threshold for analyzing greenhouse gas (GHG) emissions generated by construction projects²⁹. The state of California has identified GHG reduction goals through adoption of Assembly Bill (AB) 32 of the California Global Warming Solutions Act of 2006³⁰. However, the effect of GHG emissions as they relate to global climate change is inherently a cumulative impact issue. Although the emissions of one single project would not cause global climate change, GHG emissions from multiple projects throughout the world could result in a cumulatively considerable contribution to a significant cumulative impact with respect to global climate change. To meet AB 32 goals, California would need to reduce GHG emissions below current levels.

The impact that GHG emissions have on global climate change does not depend on whether they were generated by stationary, mobile, or area sources or whether they were generated in one region or another. Thus, the net change in total GHG levels generated by a project or activity is the best metric for determining whether a project would contribute to global warming. In the case of the proposed project, if the size of the increase in emissions from the project is considered to be substantial, then the impact of the project would be cumulatively considerable.

For most projects, no simple metric is available to determine if a single project would substantially increase or decrease overall GHG emission levels. As noted above, neither ARB nor the San Francisco Bay Area Air Quality Management District has identified a significance threshold for analyzing GHG emissions generated by construction projects. Therefore, to establish additional context in which to consider the order of magnitude of project-generated GHG emissions, it may be noted that facilities (i.e., stationary, continuous sources of GHG emissions) that generate greater than 25,000 metric tons CO₂/year are mandated to report GHG emissions to ARB pursuant to AB 32.

Development of the proposed project would involve minor construction activities, which would include placement of a 2 cfs diversion facility in Pope Creek and a 10-inch PVC pipe to convey water to the offstream reservoir, excavation of the reservoir, and placement of a PVC pipe distribution system to the POU. An electric pump will be used to divert water from the POD to the reservoir. Equipment used during construction would include a single backhoe used over a period of several days. The primary GHG emission associated with use of this equipment is CO₂ from combustion of diesel fuel. However, these emissions would be temporary and short-term in nature and well below the minimum standard for reporting requirements under AB 32 (25,000 metric tons CO₂/year). Removal of 15 trees as part of development of the POU would cause some of the accumulated carbon in the woodland biomass ("carbon stock") to be released into the atmosphere. In addition, the process of carbon sequestration would decrease through the removal of these trees. However, replacement of these trees at a 3:1 ratio (see Permit Term under "Biological Resources") would create a long-term net benefit in carbon stock

and sequestration over the 50 years it would take for the replacement trees to mature. Therefore, GHG emissions from implementation of the project would have a less-than-significant impact on the environment.

The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact would be less-than-significant.

8 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Hazards and Hazardous Materials. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Temporary construction activities associated with project construction would involve the use of some heavy equipment, which uses small amounts of hazardous materials such as oils, fuels, and other potentially flammable substances that are typically associated with construction activities. A minor potential exists for the spill of these substances on-site during construction. Because construction activities are temporary, minor, and restricted to a small construction area, this potential impact is less-than-significant.

PERMIT TERMS

Although impacts from hazardous materials are considered to be less-than-significant, to further minimize the potential for spill of hazardous substances associated with construction activities, a special permit term, substantially as follows, shall be included in any permits or licenses issued pursuant to Application 29686 and 29687.

- < *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.*

9 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Pope Creek, in the Upper Putah Creek Watershed, is tributary to Lake Berryessa thence Putah Creek thence the Yolo Bypass. Pope Creek, from the project site, flows approximately 4 miles into Lake Berryessa. The project area and higher elevation zones of Putah Creek in general are characterized by clear streams with relatively high gradients (typically a total drop of at least 15 feet for every mile of stream).

The proposed project and Pope Creek are located above the Solano Project, which was completed in 1959. The Solano Project resulted in construction of Monticello Dam on Putah Creek and flooding of the Berryessa Valley to create Lake Berryessa. Putah Diversion Dam, constructed 6 miles downstream from Monticello Dam, impounded flows in the "interdam reach," creating the Lake Solano reservoir. Construction of the two dams effectively isolated the upper watershed including Pope Creek and the project area from anadromous salmonid species.

a), f) Water quality: The proposed project includes a 45-foot buffer from Pope Creek and the Unnamed Stream and agricultural chemicals used at the POU would be consistent with Napa County Agricultural Commissioner's Office requirements. This setback is within the range of buffer widths, derived from scientific research studies, needed to achieve erosion and nutrient control³¹. Therefore, water quality impacts related to use of agricultural chemicals would be less-than-significant. Construction activities associated with the proposed POD, reservoir, and vineyard development would involve the use of some heavy equipment, which use small amounts of hazardous materials such as oils, fuels, and other potentially flammable substances. The POU will be set back at least 45 feet from Pope Creek and the Unnamed Stream, and possibly greater distances depending on whether any additional setback distances are required per the Napa County Ordinance. No new roads would be constructed. The proposed setbacks from waters would greatly reduce the potential for release of sediment or spillage of these substances into waters during construction in the POU. However, construction of the passive bypass structure at the POD would take place within the proposed setback. Some potential exists for the spill of these substances into waters during construction. Therefore, impacts to water quality as a result of project construction would be potentially significant but would be less than significant with mitigation incorporated as described below.

b) Groundwater: The project does not propose any activities that would directly affect groundwater or result in any substantial indirect effects on groundwater supplies or recharge. Impacts are less-than-significant.

c), d), e) Runoff, drainage patterns: The diversion of water being formally requested under the two applications is not anticipated to substantially alter the existing drainage pattern of the site or area. Further, the diversion is not anticipated to substantially increase erosion or siltation or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Some potential short-term construction-related erosion and siltation impacts could occur and would be potentially significant. These impacts, however, are less-than-significant with mitigation incorporated as described below.

g), h), i) Flooding: The project would not place structures that would impede or redirect flood flows within a 100-year flood hazard area or place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. Further, the project would not expose people or structures to a significant risk of loss, injury, or death from flooding.

j) Seiche, tsunami, or mudflow: The project would not result in inundation by seiche, tsunami, or mudflow because it is geographically isolated from associated features.

PERMIT TERMS

The Applicant has agreed to the following permit terms to reduce potentially significant impacts to water quality, siltation, and erosion associated with reservoir and other facility construction to a less-than-significant level. In order to prevent water quality degradation due to construction activities, the following terms, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 29686 and 29687:

- < *Permittee shall obtain all necessary state and local agency permits required by other agencies prior to construction and diversion of water. Copies of such permits and approvals shall be forwarded to the Deputy Director for 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.*

To ensure that water is diverted in accordance with the project description and to minimize the project's potential to cause impacts to hydrology and water quality, the following terms, substantially as follows, shall be included in any permits or licenses issued pursuant to Applications 29686 and 29687:

- < *The State Water Board reserves jurisdiction to impose conditions to conform this permit to Board policy on use of water for frost protection. Action by the Board will be taken only after notice to interested parties and opportunity for hearing.*
- < *This permit is subject to the continuing authority of the State Water Board to reduce the amount of water named in the permit upon a finding by the Board that the amount is in excess of that reasonably needed to be held in storage for the authorized use. No action will be taken by the Board without prior notice to the owner and an opportunity for hearing.*
- < *To prevent degradation of the quality of water during and after construction of the project, Permittee shall file a report of waste discharge pursuant to Water Code Section 13260 prior to commencement of construction and shall comply with all waste discharge requirements imposed by the California Regional Water Quality Control Board, San Francisco Bay Region, or by the State Water Board.*
- < *Prior to diversion or use of water under this permit, Permittee shall install an in-line flow meter, satisfactory to the Deputy Director for Water Rights, to measure the instantaneous rate and the cumulative amount of water withdrawn from Pope Creek on the diversion pump discharge pipe. In-line flow meters shall be installed on the irrigation and frost protection pumps discharge lines. Evidence that the required measuring devices have been installed shall be submitted to the Deputy Director for Water Rights prior to diversion of water.*
- < *No water shall be diverted under this permit until the Permittee has installed a device in Pope Creek, satisfactory to the State Water Board, which is capable of measuring the bypass flow required by the conditions of this permit. The device and the location of the monitoring station shall be reviewed and must be satisfactory to the Deputy Director for Water Rights, before any construction is undertaken. Permittee shall furnish evidence which substantiates that the streamflow measuring device has been installed prior to diversion of water under this permit. If the measuring device is rendered inoperative for any reason, all diversions shall cease until such time as the device is restored to service. Said measuring device shall be properly calibrated, operated, and maintained by the Permittee (or successors-in-interest) as long as any water is being diverted under any permits or licenses issued pursuant to Applications 29696 and 29687.*

- < *Before storing any water in the reservoir, Permittee shall install a staff gauge in the reservoir, satisfactory to the Deputy Director for Water Rights. This staff gauge must be maintained in operating condition as long as water is being diverted under this permit.*

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

Permittee shall adhere to the June 8, 2007, Compliance Plan (NVVE 2007) approved by the Division of Water Rights and shall comply with the flow bypass term specified in this permit. Diversion and use of water prior to approval of the Compliance Plan and the installation of facilities specified in the Compliance Plan is not authorized. The Permittee shall be responsible for all costs associated with installing and maintaining all flow bypass and monitoring facilities described in the Compliance Plan. The monitoring data shall be maintained by the Permittee for 10 years from the date of collection and made available to the Deputy Director for Water Rights upon request. Any non-compliance with the terms of the permit shall be reported by the Permittee promptly to the Deputy Director for Water Rights.

- < *Permittee shall not use more water under the basis of riparian right on the place of use authorized by this permit than Permittee would have used absent the appropriation authorized by this permit.*

Based on the information in the Division's files, riparian water has not been used on the place of use. Therefore, consistent with this term, Permittee may not divert any additional riparian water for use on the place of use authorized by this permit under basis of riparian right. With the Deputy Director for Water Right's approval, this information may be updated, and Permittee may use water under basis of riparian right on the authorized place of use, provided that Permittee submits reliable evidence to the Deputy Director for Water Rights quantifying the amount of water that Permittee likely would have used under the basis of riparian right absent the appropriation authorized by this permit. The Deputy Director for Water Rights is hereby authorized to approve or reject any proposal by Permittee to use water under the basis of riparian right on the place of use authorized by this permit.

Specific Permit Term for Application 29687:

- < *The capacity of the reservoir covered under this permit shall not exceed 87 acre-feet.*

Specific Permit Term for Application 29686:

- < *The maximum rate of diversion to offstream storage shall not exceed 2 cubic feet per second.*

The above permit terms shall ensure that project impacts to hydrology and water quality are at a less-than-significant level.

10 LAND USE AND PLANNING

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

The site is zoned as Agricultural Watershed and is designated in the Napa County General Plan as Open Space, Watershed. The proposed project does not change the general land use in the area (agricultural) nor does it conflict with any land use plan or policies.

11 MINERAL RESOURCES

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

The small amount of earth-moving activity necessary to construct the proposed project would have no direct or indirect effect on known mineral resources or any delineated mineral resource recovery sites.

12 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Noise. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not within the vicinity of any airports or private airstrips. A few scattered, rural residences are located within one-half mile of the project site. However, the activities associated with vineyard development would generate temporary, short-term increases in noise levels at the project site for the duration of the construction period. Long-term vineyard operations would generate noise levels typical of the agricultural area that the project is located in. Noise levels would remain below standards set in the Napa County General Plan. Noise impacts from project construction and operation would be less-than-significant.

13 POPULATION AND HOUSING

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

The proposed project would involve diversion of water to an offstream reservoir and development of a vineyard. No impacts on population growth or increased housing would occur as a result of the proposed project.

14 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project would involve diversion of water to an offstream reservoir and development of a vineyard. The project would not generate a need for new or physically altered governmental facilities, and thus no impacts on public services would be associated with the proposed project.

15 RECREATION

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

The proposed project would involve diversion of water to an offstream reservoir and development of a vineyard. The property is private, and there are no recreational facilities that exist on the property or that are proposed. No impacts on recreation facilities or recreational opportunities in the area would occur as a result of the project.

16 TRANSPORTATION/TRAFFIC

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Transportation/Traffic. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project would not require any change in transportation systems. During project construction in particular, and during routine maintenance of the vineyards, a temporary and minor increase in traffic volumes could occur on Popé Canyon Road, Silverado Trail, and Highway 29, or on other minor roads; however, this increase would be less-than-significant. The temporary and minor increase in truck traffic that may result during project construction and during routine vineyard maintenance would not require any changes or upgrades to the local road system.

17 UTILITIES AND SERVICE SYSTEMS

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

The proposed project would involve diversion of water to an offstream reservoir and development of a vineyard. The project would not require any changes in local utility systems.

18 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Authority: Public Resources Code Sections 21083, 21083.5.
 Reference: Government Code Sections 65088.4.
 Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Development of the proposed project, with the permit terms proposed by the Division of Water Rights and accepted by the Applicant, would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory. As discussed in the analyses provided in this Initial Study, mitigation measures in the form of special water right permit terms are proposed to reduce all potentially significant impacts on biological and cultural resources, as well as to other issue areas, to less-than-significant levels.

No past, current, or probable future projects were identified in the project vicinity that, when added to project-related impacts, would result in cumulatively considerable impacts. No cumulatively considerable impacts would occur with development of the proposed project. As discussed in the analyses provided in this Initial Study, mitigation measures in the form of special water right permit terms are proposed to reduce all potentially significant impacts to less-than-significant levels. The incremental effects of the proposed project are not cumulatively considerable when viewed in connection with the effects of past, current, and probable future projects.

No project-related environmental effects were identified that would cause substantial adverse effects on human beings after mitigation (i.e., water rights permit terms) are incorporated. As discussed herein, the proposed project has the potential to create potentially significant impacts related to geology and soils, hydrology and water quality, biological resources, and cultural resources. However, with implementation of the required mitigation measures, these impacts would be reduced to less-than-significant levels.

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 (See Appendix A). A NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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

Prepared By:

David M. Rader
David Rader, Project Manager, AECOM

Jan. 18, 2011
Date

Reviewed By:

Greg Brown
Greg Brown, Environmental Scientist, Inland Streams Unit

January 21, 2011
Date

Katherine Mrowka
Katherine Mrowka, Chief, Inland Streams Unit

January 27, 2011
Date

Phillip Crader
Phillip Crader, Acting Manager, Water Rights Permitting Section

6/6/2011
Date

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

IV. INFORMATION SOURCES

- ¹ Napa County. 2009 (February). Title 18 Zoning, 18.108.025(B)(1), "Setbacks for New Land Clearings for Agricultural Purposes." Available online: <
http://www.co.napa.ca.us/code2000/_DATA/TITLE18/Chapter_18_108__CONSERVATION_REGU L/18_108_025_General_provisions_.html>
- ² Napa Valley Vineyard Engineering (NVVE). June 8, 2007. Compliance Plan for Flow Bypass. St. Helena, CA.
- ³ San Francisco Bay Area Air Quality Management District. 2008. Bay Area Air Pollution Summary 2008. San Francisco, CA.
- ⁴ EDAW, January 17, 2005.
- ⁵ U.S. Fish and Wildlife Service (USFWS) 2006. Designation of Critical Habitat for the California Red-Legged Frog; Final Rule. Federal Register 71: 19244–19292.
- ⁶ State Water Resources Control Board (State Water Board). September 28, 2010. Policy for Maintaining Instream Flows in Northern California Coastal Streams. Sacramento, CA.
- ⁷ Moyle, Dr. Peter B. Professor of Fish Biology at the University of California, Davis. Davis, CA. Various e-mail, telephone and in-person communications with EDAW staff Bob Solecki and Ron Unger between May 2003 and June 2004; communications with Rich Marovich; and Dr. Moyle's presentation on the fishes of Putah Creek at the Putah Creek Council Public Speakers Series meeting on April 22, 2003; and email on December 10, 2003 to Rich Marovich regarding salmon run.
- ⁸ Krovoza, J. 2000. Historic accord settles lawsuit, sets permanent creek flows to satisfaction of all parties; now future of creek looks bright. Putah Creek News 13(2) 1, 3, 6–8.
- ¹⁰ Napa Valley Vineyard Engineering (NVVE). 2004.
- ¹¹ Napa Valley Vineyard Engineering (NVVE). 2007.
- ¹² Napa Valley Vineyard Engineering (NVVE). June 8, 2007.
- ¹³ State Water Board. 2007a (October). Letter to Narsai David from State Water Board. Sacramento, CA.
- ¹⁴ Napa Valley Vineyard Engineering (NVVE). 2004.
- ¹⁵ State Water Resources Control Board (State Water Board). 2007a (October). Letter to Narsai David from State Water Board. Sacramento, CA.
- ¹⁶ U.S. Geological Survey, National Water Information System, Daily Streamflow for California, USGS 11453600, POPE C NR POPE VALLEY, CA. Retrieved: 2004-08-06 14:02:00 EDT
at:<http://nwis.waterdata.usgs.gov/ca/nwis/discharge?site_no=11453600&agency_cd=USGS&begin

_date=&end_date=&set_logscale_y=1&format=rdb&date_format=YYYY-MM-DD&rdb_compression=&submitted_form=brief_list>.

- 17 Quinn and Origer. 2001.
- 18 Tom Origer and Associates. 2002. Letter dated December 20, 2002 from Tom Origer and Associates, Rohnert Park to Napa Valley Vineyard Engineering, Inc. St Helena. On file at State Water Resources Control Board, Sacramento, CA.
- 19 Flynn. 1989. Archaeological Survey of the Lands of Stoutenbert/David (APN 18-080-24), Pope Canyon Road, Napa County, California. Archaeological Resource Service. Novato. Report on file at State Water Resources Control Board, Sacramento, CA.
- 20 Quinn and Origer. 2001.
- 21 Flynn. 1989. Archaeological Survey of the Lands of Stoutenbert/David (APN 18-080-24), Pope Canyon Road, Napa County, California. Archaeological Resource Service. Novato. Report on file at State Water Resources Control Board, Sacramento, CA.
- 22 Quinn and Origer. 2001.
- 23 Tom Origer and Associates. 2002.
- 24 Quinn and Origer. 2001.
- 25 Tom Origer and Associates. 2002.
- 26 California Department of Conservation, California Geological Survey. 2004. Index to Official Maps of Alquist-Priolo Earthquake Fault-Rupture Hazard Zones in California. Available online: http://www.consrv.ca.gov/cgs/rghm/ap/map_index/F4B.htm#5.
- 27 Bryant, W. A., compiler, 2000, Fault number 35b, Hunting Creek-Berryessa fault system, Hunting Creek section, in Quaternary fault and fold database of the United States: U.S. Geological Survey website, <http://earthquakes.usgs.gov/regional/qfaults>, accessed 03/26/2008 04:02 PM.
- 28 Napa County. 2003 (June). County of Napa Natural Disaster Map – Soil Slope with Relief & Faults. Napa, CA.
- 29 San Francisco Bay Area Air Quality Management District. 2010 (May 26). Draft BAAQMD May 2010 Final (adopted June 2, 2010). San Francisco, CA.
- 30 California Air Resources Board. 2008 (December). Climate Change Scoping Plan Pursuant to AB 32 California Global Warming Solutions Act of 2006. Sacramento, CA.
- 31 Robins, James D. 2002, (October). Stream Setback Technical Memo. Napa, CA.

APPENDIX A

CNDDDB Wide Tabular Report

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California Department of Fish and Game
Natural Diversity Database

CNDDDB Wide Tabular Report
Quads: Aetna Springs, Calistoga, St. Helena, Chiles Valley, Walter Spring, Knoxville, Jericho Valley, Middletown,
Detert Reservoir

Name (Scientific/Common)	CNDDDB Ranks	Other Lists	Listing	Stat	Total EO's	Element Occ Ranks					Population Statusnce					
						A	B	C	D	X	U	>20	<=20	yrxta	Extir	Extirp.
Accipiter striatus sharp-shinned hawk	G5 S3	CDFG:	Fed: None Cal: None		21 S: 2	1	0	0	0	0	0	0	1	1	0	0
Actinemys marmorata western pond turtle	G3G4 S3	CDFG: SC	Fed: None Cal: None		1098 S: 30	3	5	2	1	0	4	4	11	15	0	0
Agelaius tricolor tricolored blackbird	G2G3 S2	CDFG: SC	Fed: None Cal: None		424 S: 6	0	1	0	0	0	2	0	3	3	0	0
Amorpha californica var. napensis Napa false indigo	G4T2 S2.2	CNPS: 1B. 2	Fed: None Cal: None		45 S: 34	2	2	3	1	0	9	5	12	17	0	0
Amsinckia lunaris bent-flowered fiddleneck	G2 S2.2	CNPS: 1B. 2	Fed: None Cal: None		50 S: 6	0	0	0	0	0	3	2	1	3	0	0
Antrozous pallidus pallid bat	G5 S3	CDFG: SC	Fed: None Cal: None		398 S: 16	0	0	0	0	1	7	6	2	7	0	1
Aquila chrysaetos golden eagle	G5 S3	CDFG:	Fed: None Cal: None		141 S: 4	2	0	0	0	0	0	0	2	2	0	0
Arctostaphylos manzanita ssp. elegans Konociti manzanita	G5T2 S2.3	CNPS: 1B. 3	Fed: None Cal: None		34 S: 10	0	0	0	0	0	5	5	0	5	0	0

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Astragalus claranus Clara Hunt's milk-vetch	G1 S1.1	CNPS: 1B. 1Fed: Endangered Cal: Threatened	6 S: 8	0	1	2	0	1	0	1	3	3	1	0
Astragalus rattanii var. jepsonianus Jepson's milk-vetch	G4T2 S2.2	CNPS: 1B. 2Fed: None Cal: None	29 S: 16	0	3	0	0	0	5	5	3	8	0	0
Athene cunicularia burrowing owl	G4 S2	CDFG: SC Fed: None Cal: None	1209 S: 4	2	0	0	0	0	0	2	0	2	0	0
Brodiaea californica var. leptandra narrow-anthered California brodiaea	G4?T2T 3 S2S3.2	CNPS: 1B. 2Fed: None Cal: None	29 S: 24	2	3	0	0	1	6	7	5	11	1	0
California macrophylla round-leaved filaree	G3 S3.1	CNPS: 1B. 1Fed: None Cal: None	115 S: 4	0	1	0	0	0	1	0	2	2	0	0
Calystegia collina ssp. oxyphylla Mt. Saint Helena morning-glory	G4T3 S3.2	CNPS: 4. 2 Fed: None Cal: None	9 S: 14	1	2	0	0	0	4	5	2	7	0	0
Calystegia purpurata ssp. saxicola coastal bluff morning-glory	G4T2 S2.2	CNPS: 1B. 2Fed: None Cal: None	30 S: 2	0	0	0	0	0	1	0	1	1	0	0
Castilleja rubicundula ssp. rubicundula pink creamsacs	G5T2 S2.2	CNPS: 1B. 2Fed: None Cal: None	18 S: 6	0	0	0	0	0	3	3	0	3	0	0
Ceanothus confusus Rincon Ridge ceanothus	G2 S2.2	CNPS: 1B. 1Fed: None Cal: None	26 S: 18	0	1	0	0	0	8	8	1	9	0	0
Ceanothus divergens Calistoga ceanothus	G2 S2.2	CNPS: 1B. 2Fed: None Cal: None	26 S: 18	1	1	0	0	0	7	7	2	9	0	0

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Ceanothus purpureus holly-leaved ceanothus	G2 S2.2	CNPS: 1B. 2 Cal : None	Fed: None Cal : None	39 S: 6	0	1	0	0	0	2	3	0	3	0	0
Ceanothus sonomensis Sonoma ceanothus	G2 S2.2	CNPS: 1B. 2 Cal : None	Fed: None Cal : None	22 S: 2	0	0	0	0	0	1	0	1	1	0	0
Centromadia parryi ssp. parryi pappose tarplant	G4T2 S2.2	CNPS: 1B. 2 Cal : None	Fed: None Cal : None	23 S: 6	0	1	0	0	0	2	2	1	3	0	0
Coastal and Valley Freshwater Marsh	G3 S2.1		Fed: None Cal : None	60 S: 2	0	0	1	0	0	0	1	0	1	0	0
Corynorhinus townsendii Townsend's big-eared bat	G4 S2S3	CDFG: SC	Fed: None Cal : None	234 S: 16	0	0	0	0	0	8	7	1	8	0	0
Cryptantha cleavelandii var. dissita serpentine cryptantha	G5T1 S1.1	CNPS: 1B. 1 Cal : None	Fed: None Cal : None	10 S: 2	1	0	0	0	0	0	0	1	1	0	0
Erigeron greenei Greene's narrow-leaved daisy	G2 S2	CNPS: 1B. 2 Cal : None	Fed: None Cal : None	12 S: 10	0	1	0	0	0	4	4	1	5	0	0
Eriogonum nervulosum Snow Mountain buckwheat	G2 S2.2	CNPS: 1B. 2 Cal : None	Fed: None Cal : None	12 S: 6	0	1	0	0	0	2	3	0	3	0	0
Eryngium constancei Loch Lomond button-celery	G1 S1.1	CNPS: 1B. 1 Cal : Endangered	Fed: Endangered Cal : Endangered	3 S: 2	0	1	0	0	0	0	0	1	1	0	0
Falco mexicanus prairie falcon	G5 S3	CDFG:	Fed: None Cal : None	456 S: 10	3	0	0	0	0	2	3	2	5	0	0
Falco peregrinus anatum American peregrine falcon	G4T3 S2	CDFG:	Fed: Delisted Cal : unknown code...	33 S: 6	1	1	1	0	0	0	0	3	3	0	0

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<i>Fritillaria pluriflora</i> adobe-lily	G3 S3	CNPS: 1B. 2 Fed: None Cal: None	97 S: 40	2	4	2	0	0	12	15	5	20	0	0
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	G3 S3.1	CNPS: 1B. 2 Fed: None Cal: Endangered	90 S: 2	1	0	0	0	0	0	1	0	1	0	0
<i>Haliaeetus leucocephalus</i> bald eagle	G5 S2	CDFG: Fed: Delisted Cal: Endangered	287 S: 10	2	2	0	0	0	1	2	3	5	0	0
<i>Harmonia hallii</i> Hall's harmonia	G2 S2.2	CNPS: 1B. 2 Fed: None Cal: None	16 S: 20	0	0	0	0	0	10	10	0	10	0	0
<i>Hesperolinon</i> <i>bicarpellatum</i> two-carpellate western flax	G2 S2.2	CNPS: 1B. 2 Fed: None Cal: None	25 S: 28	3	1	0	0	0	10	10	4	14	0	0
<i>Hesperolinon dymocarpum</i> Lake County western flax	G1 S1.2	CNPS: 1B. 2 Fed: None Cal: Endangered	6 S: 12	0	1	2	0	0	3	2	4	6	0	0
<i>Hesperolinon drymarioides</i> drymaria-like western flax	G2 S2.2	CNPS: 1B. 2 Fed: None Cal: None	20 S: 10	0	0	2	0	0	3	5	0	5	0	0
<i>Hesperolinon</i> sp. nov. "serpentinum" Napa western flax	G2 S2.1	CNPS: 1B. 1 Fed: None Cal: None	39 S: 46	1	11	1	0	0	10	11	12	23	0	0
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	G1G2 S1S2	CDFG: Fed: None Cal: None	13 S: 2	0	0	0	0	0	1	1	0	1	0	0
<i>Juglans hindsii</i> Northern California black walnut	G1 S1.1	CNPS: 1B. 1 Fed: None Cal: None	5 S: 2	0	1	0	0	0	0	0	1	1	0	0

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Juncus lucidus Santa Lucia dwarf rush	G3 S3	CNPS: 1B. 2 Fed: None Cal: None	26 S: 2	0	0	0	0	0	1	1	0	1	0	0
Lasiocyteris noctivagans silver-haired bat	G5 S3S4	CDFG: Fed: None Cal: None	138 S: 2	0	0	0	0	0	1	1	0	1	0	0
Lasiurus cinereus hoary bat	G5 S4?	CDFG: Fed: None Cal: None	235 S: 2	0	0	0	0	0	1	1	0	1	0	0
Lasthenia burkei Burke's goldfield	G1 S1.1	CNPS: 1B. 1 Fed: Endangered Cal: Endangered	31 S: 4	0	0	0	1	0	1	1	1	2	0	0
Layia septentrionalis Colusa Layia	G2 S2.2	CNPS: 1B. 2 Fed: None Cal: None	44 S: 28	1	1	0	0	0	12	12	2	14	0	0
Legenere limosa Legenere	G2 S2.2	CNPS: 1B. 1 Fed: None Cal: None	61 S: 2	1	0	0	0	0	0	1	0	1	0	0
Leptosiphon jepsonii Jepson's Leptosiphon	G2 S2.2	CNPS: 1B. 2 Fed: None Cal: None	11 S: 10	0	0	0	0	0	5	4	1	5	0	0
Limnanthes floccosa ssp. floccosa woolly meadowfoam	G4T4 S3.2	CNPS: 4. 2 Fed: None Cal: None	54 S: 2	1	0	0	0	0	0	0	1	1	0	0
Lupinus sericatus Cobb Mountain Lupine	G2 S2.2	CNPS: 1B. 2 Fed: None Cal: None	45 S: 60	0	0	2	0	1	27	28	2	29	1	0
Myotis evotis Long-eared myotis	G5 S4?	CDFG: Fed: None Cal: None	106 S: 2	0	0	0	0	0	1	0	1	1	0	0
Myotis yumanensis Yuma myotis	G5 S4?	CDFG: Fed: None Cal: None	256 S: 2	0	0	0	0	0	1	0	1	1	0	0

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Navarretia leucocephala ssp. bakeri Baker's navarretia	G4T2 S2.1	CNPS: 1B. 1 Fed: None Cal: None	45 S: 6	1	0	0	0	0	1	1	2	1	2	0	1
Navarretia leucocephala ssp. plieantha many-flowered navarretia	G4T1 S1.2	CNPS: 1B. 2 Fed: Endangered Cal: Endangered	7 S: 2	1	0	0	0	0	0	0	1	0	1	0	0
Navarretia myersii ssp. deminata small pin cushion navarretia	G1T1 S1.1	CNPS: 1B. 1 Fed: None Cal: None	1 S: 2	0	1	0	0	0	0	0	0	1	1	0	0
Navarretia rosulata Marin County navarretia	G2? S2?	CNPS: 1B. 2 Fed: None Cal: None	13 S: 6	1	0	0	0	0	0	2	3	0	3	0	0
Northern Basalt Flow Vernal Pool	G3 S2.2	Fed: None Cal: None	28 S: 2	0	0	0	0	0	0	1	1	0	1	0	0
Northern Interior Cypress Forest	G2 S2.2	Fed: None Cal: None	22 S: 10	0	0	1	0	0	0	4	5	0	5	0	0
Northern Vernal Pool	G2 S2.1	Fed: None Cal: None	20 S: 8	0	1	0	0	0	0	3	4	0	4	0	0
Oncorhynchus mykiss irideus steelhead - central California coast ESU	G5T2Q S2	CDFG: Fed: Threatened Cal: None	29 S: 2	0	1	0	0	0	0	0	0	1	1	0	0
Orcuttia tenuis slender Orcutt grass	G3 S3.1	CNPS: 1B. 1 Fed: Threatened Cal: Endangered	91 S: 2	0	1	0	0	0	0	0	1	0	1	0	0
Penstemon newberryi var. sonomensis Sonoma beardtongue	G4T1 S1.3	CNPS: 1B. 3 Fed: None Cal: None	11 S: 14	2	0	0	0	0	0	5	5	2	7	0	0

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Plagiobothrys strictus Calistoga popcorn-flower	G1 S1.1	CNPS: 1B. 1 Cal: Threatened	Fed: Endangered S: 6	3	0	2	0	0	0	1	2	1	3	0	0
Poa napensis Napa blue grass	G1 S1.1	CNPS: 1B. 1 Cal: Endangered	Fed: Endangered S: 4	2	0	2	0	0	0	0	0	2	2	0	0
Progne subis purple martin	G5 S3	CDFG: SC Cal: None	Fed: None S: 10	45	0	2	0	0	0	3	3	2	5	0	0
Rana boylei foothill yellow-legged frog	G3 S2S3	CDFG: SC Cal: None	Fed: None S: 36	783	0	4	3	1	0	10	3	15	18	0	0
Rana draytonii California red-legged frog	G4T2T3 S2S3	CDFG: SC Cal: None	Fed: Threatened S: 2	1299	0	0	0	0	1	0	1	0	0	1	0
Sedella leiocarpa Lake County stonecrop	G1 S1.1	CNPS: 1B. 1 Cal: Endangered	Fed: Endangered S: 2	6	0	1	0	0	0	0	1	0	1	0	0
Serpentine Bunchgrass	G2 S2.2		Fed: None Cal: None S: 4	22	0	1	1	0	0	0	2	0	2	0	0
Sidalcea hickmanii ssp. napensis Napa checkerbloom	G1 S1	CNPS: 1B. 1 Cal: None	Fed: None S: 2	2	0	0	0	0	0	1	1	0	1	0	0
Sidalcea keckii Keck's checkerbloom	G1 S1.1	CNPS: 1B. 1 Cal: None	Fed: Endangered S: 8	16	0	1	0	0	0	3	1	3	4	0	0
Sidalcea oregana ssp. hydrophila marsh checkerbloom	G5T2? S2?	CNPS: 1B. 2 Cal: None	Fed: None S: 4	23	0	0	0	0	1	1	2	0	1	1	0

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Streptanthus brachiatus ssp. brachiatus Socrates Mine jewel-flower	G2T1 S1.2	CNPS: 1B. 2 Fed: None Cal: None	8 S: 2	1	0	0	0	0	0	0	1	0	1	0	0
Streptanthus brachiatus ssp. hoffmani Freed's jewel-flower	G2T1 S1.2	CNPS: 1B. 2 Fed: None Cal: None	12 S: 2	0	0	0	0	0	0	1	0	1	1	0	0
Streptanthus breweri var. hesperidis green jewel-flower	G5T2 S2.2	CNPS: 1B. 2 Fed: None Cal: None	20 S: 32	1	1	0	0	0	14	11	5	16	0	0	
Streptanthus morrisonii Morrison's jewel-flower	G2 S2	CNPS: Fed: None Cal: None	36 S: 44	0	2	2	0	0	18	17	5	22	0	0	
Streptanthus vernalis early jewel-flower	G1 S1	CNPS: 1B. 2 Fed: None Cal: None	1 S: 2	0	0	0	0	0	1	0	1	1	0	0	
Syncaris pacifica California freshwater shrimp	G1 S1	CDFG: Fed: Endangered Cal: Endangered	18 S: 2	0	1	0	0	0	0	1	0	1	0	0	
Trachykele hartmani serpentine cypress wood-boring beetle	G1 S1	CDFG: Fed: None Cal: None	3 S: 4	0	0	0	0	0	2	2	0	2	0	0	
Trichostema ruygtii Napa bluecurls	G2 S2	CNPS: 1B. 2 Fed: None Cal: None	19 S: 4	0	0	0	0	0	2	1	1	2	0	0	
Trifolium depauperatum var. hydrophilum saline clover	G5T2? S2.2?	CNPS: 1B. 2 Fed: None Cal: None	19 S: 2	0	1	0	0	0	0	0	1	1	0	0	
Vandykea tuberculata serpentine cypress long-horned beetle	G1 S1	CDFG: Fed: None Cal: None	2 S: 4	0	0	0	0	0	2	2	0	2	0	0	

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Wildflower Field	G2	Fed: None	5	0	0	0	0	0	1	1	0	1	0	0
	S2.2	Cal: None	S: 2											

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