

Habitat Assessment

Westside Road Winery and Tasting Room
4603 Westside Road
Healdsburg, Sonoma County, CA

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SUMMARY

The Westside Road Winery, located at 4603 Westside Road, Healdsburg, CA, proposed project (Sonoma County Planning Permit Number: PLP14-0031) includes a tasting room and estate winery to be built on agricultural property, as depicted on the Construction Drawings (Always Engineering 2014). The site currently contains a reliable water supply currently exists on the site with multiple wells feeding a water storage tank, as well as located septic fields in appropriate areas of the site and a one-lane vehicle bridge to connect the two pieces of the property.

Proposed in 4 Phases of development, the first phase of the Westside Road Winery will develop a permeable parking lot, a renovated building and a pedestrian foot bridge that will support utilities crossing the unnamed tributary, and associated plantings. These developments will occur on the east side of the tributary. On the west side of the tributary, a leach field will occur in one of the three areas which have received percolation test approval on the west side of the creek. A new potable well with a 50 foot annual seal will be provided for the project, as the existing irrigation wells onsite do not have required seal depth. Phase 2-4 will be the development of a winery building on the west side of the tributary, with associated paved road, leach fields and septic tanks.

Of the 26.20 acre parcel, approximately 31,363 sq. ft. (0.72 acres) are proposed for development in Phase 1 and, by Phase 4 approximately 93,218 sq. ft. (2.14 acres) of new disturbance, which includes grading.

This Habitat and Site Assessment presents the findings of our literature review (including scientific literature and previous reports detailing studies conducted in the area) and the California Department of Fish and Wildlife's (CDFW) Natural Diversity Data Base (CNDDDB) for reported occurrences of special-status vegetation communities, plants and animals.

Two vegetation community types, corresponding to the *Avena (barbata, fatua)* semi-natural herbaceous stands or wild oats grasslands and the mixed riparian woodland occur within the project area.

As part of this Habitat Assessment, we also evaluated the potential for occurrence of 27 special-status plant species, and 26 special-status wildlife species. No focused surveys for any special-status wildlife species were conducted as part of this assessment. Surveys for special status plants were conducted on April 22 and May 12, 2014 which covered the flowering period for all of the special status plants that have the potential to occur within the project area based on the presence of potential habitat.

Based on this review and limitations of the present surveys, the following are action items to be addressed prior to ground breaking:

- Removal of trees that may support potentially roosting bat species must occur under direct supervision of a bat biologist and occur between March 1 and April 15, or September 1 through October 15.
- Nesting bird survey within one week of the removal of nesting habitat, unless removal occurs after August 15 and before March 1.
- Obtain a Section 1600 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) and a 401 Water Quality Certification Water Quality Certification and/or waste discharge permit from the Regional Water Quality Control Board (RWQCB) for the pedestrian bridge crossing (RWQCB 2014).

INTRODUCTION

Mr. Guy Byrne of Rudd Wines, Inc., contracted with Jane Valerius Environmental Consulting and Wildlife Research Associates to conduct a Habitat Assessment of the 26.20-acre parcel for their proposed 0.72 acre development project (Sonoma County Planning Permit Number: PLP14-0031). The 4603 Westside Road parcel (APN: 110-110-026) is located in the western portion of Dry Creek Valley, in the central portion of Sonoma County, California. This habitat assessment was conducted to determine the potential for special-status vegetation communities, plant and animal species to occur within the proposed project and to identify the limitations to potential development of the project, such as: a) increased on-site flows from impermeable surfaces and, b) habitat removal.

This Habitat Assessment is part of the preliminary analysis of both the existing environment and potential impacts from the proposed project as required under the California Environmental Quality Act (CEQA) for new projects. Federal and state agencies that have purview over biological resources include the following:

- U.S. Army Corps of Engineers (USACE),
- U.S. Fish and Wildlife Service (USFWS),
- National Marine Fisheries Service (NMFS),
- California Regional Water Quality Control Board (RWQCB), and the
- California Department of Fish and Wildlife (CDFW).

The USACE regulates the discharge of dredged or fill material into waters of the United States. Waters of the U.S. are defined as waters that are hydrologically connected to waters with interstate or foreign commerce, and include tributaries to any of these waters, and wetlands, which are areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support vegetation typically adapted to life in saturated soil conditions. The USFWS has regulatory authority over federally listed plant and animal species. The NMFS, a division of the National Oceanic and Atmospheric Administration (NOAA), has regulatory authority over essential fish habitat, which is habitat necessary to maintain sustainable fisheries in the United States. The California RWQCB protects all waters with special responsibility for wetlands, riparian areas, and headwaters. The CDFW has regulatory authority over state listed plants and animals as well as streams and lakes within the State.

Locally, Sonoma County has regulatory authority over: a) large native trees, trees with historical importance, and oak woodland habitat, under the Sonoma County Native Tree Protection and Preservation Ordinance, and b) all natural watercourses shown as a solid or dashed blue lines, or along watercourses supporting riparian vegetation, under the Biotic Resource Areas identified in the County General Plan (Sonoma County 2008). See Appendix A for more regulatory details.

Site Location

The proposed project site is located in central portion of Sonoma County, within the Dry Creek Valley, located west of the City of Healdsburg, west of the Russian River and northwest of the River Front Regional Park, on the west side of Dry Creek Road. The project site lies on either side of the unnamed tributary, located north of the confluence of Russian River and Porter Creek (Figure 1).

The site currently supports a reliable water supply currently exists on the site with multiple wells feeding a water storage tank, as well as located septic fields in appropriate areas of the site and a one-lane vehicle bridge to connect the two pieces of the property.

Proposed Project

The Westside Road Winery, located at 4603 Westside Road, Healdsburg, CA, proposed project includes a tasting room and estate winery to be built on agricultural property, as depicted on the Construction Drawings (Always Engineering 2014). The four Phases are described below.

The project is located just outside the floodplain of the Russian River. The unnamed tributary on-site is depicted as a Designated Stream, as shown in Figure OSRC-2, Biotic Resource Areas, of the Open Space & Resource Conservation Element of the General Plan and is classified as “other riparian corridor” (SCPRMD 2008). This type of corridor typically requires a setback of 50 ft. (SCPRMD 2008). The proposed project includes the bridge footings encroaching into the creek setback of 30 feet from the top of bank estimated by the formula above. However, this setback will not increase the water surface elevation, nor will water velocities of the tributary be increased because of development. The grading of the site will not result in depressions that could lead to aquatic stranding. All depressions will be used as water percolation.

The proposed project is a winery building, as depicted on the Construction Drawings (Always Engineering 2014). Of the 26.20 acre parcel, approximately 2.14 acres (93,218 sq. ft.) are proposed for development, which includes grading. The project includes several phases of development consisting of Phases 1 through 4 (Table 1), resulting in 55,667 sq. ft. (1.27 acres) of new development, with the remaining disturbance due to grading.

Table 1: Square footage of structures – 4603 Westside Road

Structure	Phase	Square Footage		
		Pervious Surface	Impervious Surface	Footprint Surface
Stonewall	1		860	860
Parking lot (east side)	1	6,655	437	7,092
Decomposed granite walkways	1-4	9,926		9,926
Small tasting room (existing)	1		640	640
Pedestrian bridge	1		269	269
Stub out turn around	1	2,192		2,192
Leach field	1-3	21,525		21,525
Winery Building	2		3,500	3,500
Winery Building	3		3,966	3,966
Parking lot (west side)	2-3	3,052		3,052
Outbuilding pads	2		845	845
Tasting room (west side)	4		1,800	1,800
Total		43,350	12,317	55,667

Phase 1

A natural dry set stone wall will be built at the eastern property line along Westside Road, with new citrus fruit orchards blending into the natural riparian area along the creek, populated with oaks and willows.

Car parking for 6 vehicles (the parking requirement for the retail tasting room is 4) will be developed as an unpaved gravel area to allow absorption of rainwater into the ground. The car parking will be screened from Westside Road with a 72” high wood fence and drought tolerant edible landscaping. A code-required accessible stall will be developed on a small concrete pad with an accessible decomposed granite walkway leading to the entrance of the renovated tasting building.

The building project will be accomplished in phases with a small tasting room created near the road from an existing 640 square foot equipment shed / site office building in Phase 1. See Phase 1 site plan on sheet A1.10. A single accessible restroom will be developed. All walkways around the tasting room will be

covered in a walkable permeable surface such as decomposed granite which minimizes re-grading along the sensitive riparian corridor and allows rainwater penetration to the soil below. No changes are proposed to the footprint or envelope of the existing shed building.

All existing trees along the creek will be protected during construction and retained. Existing vegetation between the top of creek bank and improvements will be preserved as much as possible to maintain riparian habitat and provide a vegetative buffer for runoff of stormwater from the site. The parking area and roadways will direct sheet flow runoff into Bioinfiltration trenches designed to collect and infiltrate the initial storm runoff from the site.

Also included in Phase 1 is the construction of a new walking bridge across the creek to connect the site for pedestrians and allow code-compliant accessibility, although this bridge could also be developed in subsequent phases. No trees will be removed although some pruning of non-protected species may be required to develop the pedestrian bridge.

Utilities crossing the creek in all phases will comply with all Sonoma County requirements. It is proposed to utilize the existing vehicular bridge for utility crossing to the extent possible, with the new pedestrian bridge providing additional opportunity for crossing of utilities.

A required stub-out turn-around for fire emergency vehicles will be provided as a gravel road on the west side of the creek. The emergency water storage tank and pump building (if required for pressurized hydrant) will also be developed on the other side of the creek in Phase 1. If an electrical fire pump is required for phase 1, then electrical power supply will also need to cross the creek to the west side.

Development of a leach field will occur in one of the three areas which have received percolation test approval on the west side of the creek. A new potable well with a 50 foot annual seal will be provided for the project, as the existing irrigation wells onsite do not have required seal depth.

Phase 2

A new 3500 square foot winery will be built on the larger back portion of the site in Phase 2 connected by the existing vehicle bridge. See Phase 2 site plan on sheet A1.20. The gravel access road will be widened to comply with Sonoma County Fire Department requirements for vehicle pull-outs on either side of the bridge. The one-way road will be brought around the new building to allow required fire vehicle turn around and passenger vehicle exiting. Additional parking for 10 vehicles will be developed on the south side of the winery building as an unpaved gravel area with landscaping. A concrete paved pad will serve the accessible parking stall and required building entrance paving.

Outbuildings will be developed to screen the trash dumpster as well as refrigeration equipment for the winery which match the larger building in architectural character.

Phase 2 will require development of a larger leach field to accommodate winery process wastewater and sanitary sewage from winery production employees. This will be placed in the location of approved soil percolation testing and may be incorporated into an expansion of the septic system developed for Phase 1. Once installed, the leach field area will be overplanted with vineyard to blend it into the landscape.

If not provided in Phase 1, electrical power supply will cross the creek using one of the two onsite bridges in order to provide power to the winery in Phases 2 and 3.

Development of the Phase 2 winery will be done with the intention of minimizing site impacts. For example, the amount of soil cut/fill will be minimized and balanced so that import as well as off-haul is not required. Any excess soil generated during construction of Phase 2 will be placed in the location of Phase 3 and stored to minimize future work required to develop the Phase 3 building pad.

The winery buildings are proposed without gutters and downspouts so as not to concentrate stormwater runoff. Rain water from the building roofs will flow onto paved and gravel areas surrounding the winery. Runoff will sheet flow from paved/gravel areas into the adjacent vineyard. Surrounding the winery will be a gradual vegetated bioswale to collect runoff from the site and direct runoff into the vineyard. In an appropriate low spot in the vineyard, a large shallow depression in the native grade will be developed to allow ponding and infiltration of initial runoff. During larger storms, this depression will fill with runoff and overflow. The depression will be designed with a uniform low side which allows the collected water to sheet flow over land to the adjacent creek. The depression shall be sized to accommodate the runoff from all phases of the project.

Phase 3

Phase 3 doubles the square footage and production capacity of the winery to 10,000 cases total, with expansion of parking (7 additional parking spaces provided in this phase) and lengthened access road. See Phase 3 site plan on sheet A1.30. Phase 3 will require an additional expansion of the leach field and septic tank system to provide for the increase in production. This will occur as an expansion to the system already installed in previous phases.

Phase 4

In the fourth and final phase a larger, all-new tasting room building will be constructed near the winery. Phase 4 is shown on Phase 3 site plan on sheet A1.30. The larger 1,800 sq. ft. tasting room is included in the overall site entitlement for use and area.

METHODS

Information on special-status plant species was compiled through a review of the literature and database search. Database searches for known occurrences of special-status species focused on the Healdsburg and Guerneville U.S. Geologic Service 7.5-minute topographic quadrangles, which provided a five mile radius around the proposed project area. The following sources were reviewed to determine which special-status plant and wildlife species have been documented in the vicinity of the project site:

- U.S. Fish and Wildlife Service (USFWS) quadrangle species lists (USFWS 2014)
- USFWS list of special-status animals for Sonoma County (USFWS 2014)
- California Natural Diversity Database records (CNDDB) (CDFW 2014)
- California Department of Fish and Wildlife's (CDFW) Special Animals List (CDFW 2014)
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2014)
- California Native Plant Society (CNPS) Electronic Inventory records (CNPS 2014)
- California Department of Fish and Game (CDFG) publication "California's Wildlife, Volumes I-III" (Zeiner, et al., 1990)
- Sonoma County General Plan 2020, Open Space and Resource Conservation Element (Sonoma County 2008)

Botanical nomenclature used in this report conforms to Baldwin, et al. (2012) for plants and to Sawyer et al. (2009) for vegetation communities. Nomenclature for special-status animal species conforms to CDFW (2013). We also reviewed the CalFish IMAPS Viewer (www.calfish.org/DataandMaps/CalFishGeographicData), developed by CDFW Biogeographic Branch for analysis of steelhead and coho salmon along Russian River and nearby creeks.

Site Survey: Jane Valerius of Jane Valerius Environmental Consulting, and Trish Tatarian, Wildlife Research Associates, conducted a reconnaissance-level survey of proposed project areas and the adjacent riparian habitat on April 22, between the hours of 1000 and 1200. Jane Valerius, botanist, conducted a second site survey on May 12, 2014. The purpose of the April and May site visits was to survey for the presence of any special status plants. The project area was walked and a list of all plants identifiable at the time of the

surveys was recorded (see Appendix D). The site visits were conducted during the flowering period special status plants that had the potential to occur within the project area based on the presence of potential habitat.

The project area was evaluated for suitable bird nesting habitat using 8 x 42 roof-prism binoculars, noting presence of old bird nests. The reconnaissance-level site visit was intended only as an evaluation of on-site and adjacent habitat types; no special-status species surveys were conducted as part of this effort as winter is not a time of year in which surveys for nesting birds are valid.

EXISTING CONDITIONS

The project area is located within the San Francisco Bay Coastal Bioregion (Welsh 1994). This bioregion is located within central California and encompasses the San Francisco Bay and the Sacramento Delta, extending from the Pacific Ocean to the eastern portion of the tule marsh zone, which is defined by Highway 99 (Welsh 1994). Habitats within this bioregion include both mesic (moist) habitats, such as freshwater marsh, and xeric (dry) habitats, such as chaparral, and are typical of a Mediterranean type climate.

The proposed project site is located within the central western portion of the Healdsburg topographic quadrangle. This unsectioned portion is within the Molinos Rancheria, south of the Sotoyome Rancheria. This portion of the Dry Creek Valley, located south of Healdsburg, supports several watersheds that flow into the Russian River, including Mill Creek, Felta Creek, and Porter Creek, as well as several unnamed tributaries such as the one on the parcel. At this location of the Russian River, the watershed is defined by a western ridge, created by Wild Hog Hill (1,150 feet in elevation).

Topographically, the project site is located on a valley that faces east, with higher elevations occurring in the northern portion of the parcel (137 feet) and lower elevations (78 feet) in the eastern portion of the parcel. At the time of the April 2014 reconnaissance, water was flowing in the creek.

Drainages

The property boundary is inclusive of the unnamed tributary to the Russian River, which is likely intermittent in La Nina conditions and perennial in El Nino conditions. The blue-line creek is one of many drainages of central Sonoma County flowing into the Russian River in the Dry Creek Area. The proposed project is situated on the eastern and western banks of this tributary (Figures 3 and 4).

The unnamed tributary qualifies as a waters of the U.S. and waters of the state. The area within the ordinary high water mark is within the jurisdiction of the U. S. Army Corps of Engineers (Corps). The Regional Water Quality Control Board (RWQCB) takes jurisdiction from top of bank to top of bank and the California Department of Fish and Wildlife (CDFW) has jurisdiction over the bed and bank and any associated riparian woodland vegetation.

The creek within the project area is incised and the banks have been armored with concrete blocks and at least one old car body. The creek could benefit from some bank stabilization to prevent further erosion along the banks.

Ben Monroe, Project Manager with Always Engineering, met with Adam McKannay with CDFW and Kaete King with the North Coast RWQCB on April 8, 2014 to discuss the proposed pedestrian bridge crossing for the creek. This meeting was documented in a memorandum prepared by Ms. King and addressed to Stephen Bargsten with the RWQCB and Ben Monroe dated April 22, 2014. As stated in the memorandum, the RWQCB will require a 401 water quality certification and/or waste discharge permit for project as the RWQCB takes jurisdiction from top of bank to top of bank of any creek drainages. A Section 1602 Streambed Alteration Agreement will also be required from CDFW. Because the bridge will span the creek it will not encroach upon the ordinary high water mark of the creek and therefore a Section 404 permit will not be required from the Corps.

Vegetation Communities

Two vegetation community types, corresponding to the *Avena (barbata, fatua)* semi-natural herbaceous stands or wild oats grasslands and mixed riparian woodland occur within the project area. These are described below.

Wild oats grassland is comprised of non-native annual grasses with wild oats being the dominant species. Other non-native grasses associated with this type include ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordaeus*), ryegrass (*Festuca perennis*), Harding grass (*Phalaris aquatica*), hare barley (*Hordeum murinum* ssp. *leporinum*), large quaking grass (*Briza maxima*) and rattail fescue (*Festuca myuros*). A number of non-native forb species are also associated with this type including filarees (*Erodium cicutarium*, *E. botrys*), scarlet pimpernel (*Anagallis arvensis*), mayweed (*Anthemis cotula*), rough cat's-ear (*Hypochaeris radicata*), mallow (*Malva* sp.), English plantain (*Plantago lanceolata*) and wild radish (*Raphanus sativus*). French broom (*Genista monspessulana*), a noxious weed, was also observed on the site. This species was in somewhat low numbers but because this plant is highly invasive the site will benefit from the eradication of this species.

Mixed riparian woodland is associated with the blue-line tributary drainage that runs along the southern portion of the project site. This riparian tree and shrub canopy includes a variety of tree and shrub species including arroyo willow (*Salix lasiolepis*), narrow-leaved willow (*Salix exigua*), red willow (*Salix laevigata*), valley oak (*Quercus lobata*), California bay laurel (*Umbellularia californica*), Oregon ash (*Fraxinus latifolia*), California buckeye (*Aesculus californica*), coast live oak (*Quercus agrifolia*), Northern California black oak (*Juglans hindsii*), blue elderberry (*Sambucus nigra* ssp. *canadensis*), California rose (*Rosa californica*), California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*) and snowberry (*Symphoricarpos albus* ssp. *laevigatus*). Several non-native and weedy plants also occur as understory along the creek banks including periwinkle (*Vinca major*), Himalayan blackberry (*Rubus armeniacus*) and poison hemlock (*Conium maculatum*). The creek supports very little wetland vegetation although there were small patches of curly dock (*Rumex crispus*), spike rush (*Eleocharis macrostachya*) and some patches of spreading rush (*Juncus patens*).

Wildlife Habitats

The value of a site to wildlife is influenced by a combination of the physical and biological features of the immediate environment. Species diversity is a function of diversity of abiotic and biotic conditions and is greatly affected by human use of the land. The wildlife habitat quality of an area, therefore, is ultimately determined by the type, size, and diversity of vegetation communities present and their degree of disturbance. Wildlife habitats are typically distinguished by vegetation type, with varying combinations of plant species providing different resources for use by wildlife. The following is a discussion of the wildlife species supported by the on-site habitats, as described by *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988).

Valley-Foothill Riparian. This habitat along this portion of the unnamed tributary supports insect diversity attractive to a variety of migratory birds and provides nesting habitat. Typically, diverse foraging substrates, such as foliage, bark and ground substrates, increase feeding availability. Birds that forage for insects in the leaves of plants include Bewick's wren (*Thryomanes bewickii*), and bushtit (*Psaltirparus minimus*). Bark-insect foraging species, such as downy woodpecker (*Picoides pubescens*), plain titmouse (*Parus inornatus*) and white-breasted nuthatch (*Sitta carolinensis*) forage for insects in the bark. There are a few species that are adapted to foraging for insects in flight, such as black phoebe (*Sayornis nigricans*), and western wood pewee (*Contopus sordidulus*). Generalist omnivores are species such as the scrub jay (*Aphelocoma caerulea*) that eat a variety of different foods, from insects to seeds to fruits. Although insects are the primary food source for most species in the riparian habitat, ground dwelling species, such as California quail (*Callipepla californica*) and California towhee (*Pipilo fuscus*), are also present in the riparian habitat feeding on seeds. The reduced vegetation along the north bank within the project area reduces the occupancy of the project area by these species but habitat still exists on the south bank to support many of these species.

The aquatic habitat of the tributary in the immediate vicinity of the project site is comprised of pools up to 1 foot deep, within the riffles and runs within the project area. Canopy cover is approximately 40%. The majority of the streambed structure is riffles with shallow flows, between 4-6 inches of water, at the time of the survey. Within the project area, the bed is comprised of gravel, with sandy soils occurring throughout. However, the shape of the creek bed and the open canopy cover and duration of water appear to be unsuitable for steelhead rearing, based on the biological requirements of the species (Leidy, et al. 2005). No ponding water of sufficient depth (> 2 feet) was observed at the time of the April survey.

Non-native grassland: Grassland habitat, including native and non-native grasslands, provides both primary habitat, such as nesting and foraging, and secondary habitat, such as a movement corridor. Small species using this habitat as primary habitat include reptiles and amphibians, such as southern alligator lizard (*Gerrhonotus multicarinatus*), western fence lizard (*Sceloporus occidentalis*), and Pacific slender salamander (*Batrachoseps attenuatus*), which feed on invertebrates found within and beneath vegetation and boulders within the vegetation community. This habitat also attracts seed-eating and insect-eating species of birds and mammals. California quail (*Lophortyx californicus*), mourning dove (*Zenaidura macroura*), and meadowlark (*Sturnella neglecta*) are a few seed-eaters that nest and forage in grasslands. Insect-eaters such as scrub jays (*Aphelocoma coerulescens*) use the habitat for foraging only. Grasslands are important foraging grounds for aerial and ground foraging insect-eating bat species such as myotis (*Myotis* spp.) and pallid bat (*Antrozous pallidus*). A large number of other mammal species such as California vole (*Microtus californicus*), deer mouse (*Peromyscus maniculatus*), and Botta's pocket gopher (*Thomomys bottae*).

The grasslands on the site are reduced in quality due to the presence of Harding grass which is unsuitable for ground nesting birds. This habitat on the site provides good as foraging habitat but is poor quality for ground nesting birds.

Anthropogenic structures. Anthropogenic structures, such as the outbuilding located in the eastern portion of the project area, provide potential roosting habitat for various wildlife species, including birds and bats. Bird species that use anthropogenic structures include passerines, such as barn swallows (*Hirundo rustica*) and black phoebe (*Sayornis nigricans*), and if the structure is large enough, raptors, such as barn owls (*Tyto alba*). These species have adapted to the disturbances associated with human settlements and will nest and forage in close proximity to humans. In general, the nesting season for both passerines and raptors typically begins at the end of February and may last to mid-August. The conclusion of the nesting season is variable, as female barn swallows and black phoebe, for example, may produce 2-3 broods each year (Alsop 2001).

Statewide, buildings also provide significant bat roosting habitat, and it appears that large bat populations are supported by the availability of buildings. Because bats show high roost fidelity, it is possible for older structures to provide roost habitat for decades. However, not all buildings available to bats provide the temperature, humidity and other requirements for bats; such factors vary by building design, materials, location, human activity patterns, and by bat species. As a result not all buildings provide suitable roost habitat.

The building on the site has been used by bats in the past; however, a bat site assessment was not conducted for this assessment and the extent of use is not known at this time.

Movement Corridors

Wildlife movement includes migration (i.e., usually one way per season), inter-population movement (i.e., long-term genetic flow) and small travel pathways (i.e., daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations.

These linkages among habitat types can extend for miles between primary habitat areas and occur on a large scale throughout California. Habitat linkages facilitate movement among populations located in discrete

areas and populations located within larger habitat areas. The mosaic of habitats found within a large-scale landscape results in wildlife populations that consist of discrete sub-populations comprising a large single population, which is often referred to as a meta-population. Even where patches of pristine habitat are fragmented, such as occurs with coastal scrub, the movement between wildlife populations is facilitated through habitat linkages, migration corridors and movement corridors. Depending on the condition of the corridor, genetic flow between populations may be high in frequency, thus allowing high genetic diversity within the population, or may be low in frequency. Potentially low frequency genetic flow may lead to complete isolation, and if pressures are strong, potential extinction (McCullough 1996; Whittaker 1998).

Wildlife connectivity of this site to other open lands in the area occurs along the tributary and is considered a movement corridor for amphibians, such as foothill yellow-legged frog and California red-legged frog, and mammals, such as striped skunk. Movements by these wildlife species occur between aquatic habitats and they may use the tributary on site to move between ponds located within the area. The creek provides cover from predators while these movements are being made.

SPECIAL-STATUS BIOLOGICAL RESOURCES

Certain vegetation communities, and plant and animal species are designated as having special-status based on their overall rarity, endangerment, restricted distribution, and/or unique habitat requirements. In general, special-status is a combination of these factors that leads to the designation of a species as sensitive. The Federal Endangered Species Act (FESA) outlines the procedures whereby species are listed as endangered or threatened and established a program for the conservation of such species and the habitats in which they occur. The California Endangered Species Act (CESA) amends the California Fish and Wildlife Code to protect species deemed to be locally endangered and essentially expands the number of species protected under the FESA.

Special-status Vegetation Communities

Sensitive natural communities are those that are considered rare in the region, may support special-status plant or wildlife species, or may receive regulatory protection (i.e., through Section 404 of the Clean Water Act [CWA] and/or Sections 1600 et seq. of the California Fish and Wildlife Code). Please refer to Appendix A for detailed descriptions of waters and wetlands. In addition, sensitive natural communities include plant communities that have been identified as having highest inventory priority in the California Natural Diversity Database (CNDDDB). The second edition of *A Manual of California Vegetation* (Sawyer, et al. 2009) also provides the rarity ranking status of these communities.

As stated earlier, the unnamed tributary on-site is depicted as a Designated Stream, as shown in Figure OSRC-2, Biotic Resource Areas, of the Open Space & Resource Conservation Element of the General Plan and is classified as “other riparian corridor” (SCPRMD 2008). This type of corridor typically requires a setback of 50 ft. (SCPRMD 2008).

Within the study area, the tributary was identified as having a bed and bank with an ordinary high water mark. The tributary, identified as blue-line drainage on the Healdsburg USGS topographic quadrangle, is intermittent, and flows through to the Russian River and into the Pacific Ocean. The mixed riparian woodland community does not have a special status designation per se but riparian scrub and tree communities are considered to be valuable and sensitive vegetation community types. The Sonoma County General Plan Open Space and Resource Conservation Element (Sonoma County Permit and Resource and Management District (SCPRMD) 2008) identifies riparian corridors as valuable areas because they provide important functions such as acting as vegetation filters for sediment and pollutants in stormwater runoff, slow flood flows, provide erosion protection for streambanks and facilitates groundwater recharge. Riparian areas also support many wildlife species and provide shade and habitat for aquatic species. In urban areas streamside areas provide natural open space and opportunities for recreation, education and aesthetic appreciation. The Policy and Goal Element #8 in the General Plan recognizes the importance of riparian communities to water quality and as wildlife habitat.

Special-status Plant Species

Special-status plant species are those species that are legally protected under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA) as listed or proposed for listing as threatened or endangered, as well as species that are considered rare by the scientific community. For example, the California Native Plant Society (CNPS) has identified some species as List 1 or 2 species and may be considered rare or endangered pursuant to Section 15380(b) of the State CEQA Guidelines. The CDFW has compiled a list of "Special Plants" (CDFW 2014), which include California Special Concern species. These designations are given to those plant species whose vegetation communities are seriously threatened. Although these species may be abundant elsewhere they are considered to be at some risk of extinction in California. Although Special Concern species are afforded no official legal status under FESA or CESA, they may receive special consideration during the planning stages of certain development projects and adverse impacts may be deemed significant under the California Environmental Quality Act (CEQA).

A total of 27 special-status plant species have been reported occurring on the two topographic quadrangles (CNDDDB 2014). Please refer to Appendix B for a list of these species and their potential for occurrence. The site does not support plants associated with the following habitats: broadleaved upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, coastal prairie, coastal bluff scrub, coastal scrub, marshes and swamps or vernal pools. In addition the site does not support plant species associated with serpentinite, alkaline, or rocky and volcanic soils.

Surveys for special status plants were conducted on April 22 and May 12, 2014. No special status plants were observed during these two surveys which were conducted during the flowering period for all of the special status plants that have the potential to occur on site based on the presence of potential habitat. With the exception of the mixed riparian tree and shrub community the majority of the plants on the site are non-native species, many of which are common weedy plants. The wild oats grassland is dominated by non-native species and no native species were observed within this type. Native plants observed were associated with the interface between the riparian area and the non-native grassland area. Native herbaceous species observed include California brome (*Bromus californica*), California bee plant (*Scrophularia californica*), manroot (*Marah fabaceus*) and California grape (*Vitis californica*).

Special-status Animal Species

Special-status animal species include those listed by the USFWS (2013) and the CDFW (2013). The USFWS officially lists species as either Threatened or Endangered, and as candidates for listing. Additional species receive federal protection under the Bald Eagle Protection Act (e.g., bald eagle, golden eagle), the Migratory Bird Treaty Act (MBTA), and state protection under CEQA Section 15380(d). In addition, many other species are considered by the CDFW to be species of special concern; these are listed in Remsen (1978), Williams (1986), and Jennings and Hayes (1994). Although such species are afforded no official legal status, they may receive special consideration during the planning and CEQA review stages of certain development projects. The CDFW further classifies some species under the following categories: "fully protected", "protected fur-bearer", "protected amphibian", and "protected reptile". The designation "protected" indicates that a species may not be taken or possessed except under special permit from the CDFW; "fully protected" indicates that a species can be taken for scientific purposes by permit only.

Of the 14 special-status animal species identified as potentially occurring in the vicinity of the project area, including within a 3 mile radius (CNDDDB 2014), several additional species were evaluated for their potential to occur within the study area, based on: 1) review of the CNDDDB, 2) the "Special Animals" list (CDFW 2014) that includes those wildlife species whose breeding populations are in serious decline, and 3) the habitat present on site. See Appendix C for a list of the 26 species evaluated. Several of these species are known to occur in Sonoma Creek or have a high potential for occurrence at the project site and are discussed below. This document does not address impacts to species that may occur in the region but for which no habitat occurs on site.

Central California Coast steelhead (*Oncorhynchus mykiss irideus*) is federally listed as Threatened and Critical Habitat has been identified (USFWS 2005). Winter steelhead enter streams from the ocean when rains have increased the stream flows (Moyle 2002). Spawning typically occurs in tributaries to mainstream rivers, after which they return to the ocean. A key characteristic of all breeding streams is cool temperatures, typically between 0° Celsius (winter) and 26°-27° C (summer) (Moyle 2002). Higher temperatures may reduce oxygen levels that are not population sustaining. Different size classes require different microhabitats that are defined by depth, water velocity, substrate and cover (Moyle 2002).

Project Area Occurrence: No surveys were conducted for this species as part of this habitat assessment. This species is known to occur within the Russian River and it supports Critical Habitat (CDFW 2014). The tributary on-site is unsuitable for steelhead rearing, based on the shape of the creek bed and the open canopy cover and duration of water. No further action is required.

California red-legged frog (*Rana draytonii*) (CRF), listed by the USFWS as Threatened and is classified by the CDFW as a California Special Concern species and a Fully Protected Species under Fish and Game Code 5050, breeds primarily in ponds, but will also breed in slow-moving streams, or deep pools in intermittent streams. Inhabited ponds are typically permanent, at least 2 feet (0.6 meters) in depth, and contain emergent and shoreline vegetation. Sufficient pond depth and shoreline cover are both critical, because they provide means of escape from predators and high winter flooding of stream habitat for the frogs (Stebbins 1985, Tatarian 2008).

Project Area Occurrence: No surveys were conducted for this species as part of this habitat assessment. This species has a low potential for occurrence in this portion of Dry Creek Valley, based on the lack of ponded water and duration of water in the streams. There is potential that this tributary is used by CRF as a movement corridor. There is no potential that this tributary is used for breeding, based on the high flows during the winter storms and then very low flows during the spring, and no flow during the summer. This species has been reported occurring more than 2.5 miles southwest of the project area in the perennial Porter Creek (CNDDDB 2014).

Foothill yellow-legged frog (*Rana boylei*) is a California Special Concern species, and occurs in most Pacific drainages from Oregon to Los Angeles County. The species typically inhabits perennial rocky streams, preferring streams with cobble-sized substrates (Jennings and Hayes 1994). Occupied drainages range from sea level to 2,040 meters (6,700 feet) (Jennings and Hayes 1994). Streams in woodland, chaparral or forest with little-to-no bank vegetation cover are also preferred (Stebbins 1985). Breeding occurs from mid-March to May, depending on rains, with tadpoles metamorphosing in June or July.

Project Area Occurrence: No surveys were conducted for this species as part of this habitat assessment. This species has a moderate potential to occur within the unnamed tributary on-site based on the presence of riffles and calmer runs and potential pools; however, the presence would be related to perennial nature of the stream (i.e., if there is no water in the stream then the species will not occur). This species has been reported occurring more than 3 miles west of the project area (CNDDDB 2014).

Western pond turtle (*Emys marmorata*) is listed by the CDFW as a California Special Concern species. It originally inhabited many of the Pacific drainage basins in California (Stebbins 1985). This medium sized turtle ranges in size to just over 8 inches (21cm) with a low carapace that is generally olive, brownish or blackish (Stebbins 1985, Jennings and Hayes 1994). Primary habitats include permanent water sources such as ponds, streams and rivers. It is often seen basking on logs, mud banks or mats of vegetation, although wild populations are wary and individuals will often plunge for cover after detecting movement from a considerable distance. Although it is an aquatic species with webbed feet, it can move across land in response to fluctuating water level, an apparent adaptation to the variable rainfall and unpredictable flows that occur in many coastal California drainage basins (Rathbun, *et al.* 1992).

Project Area Occurrence: No surveys were conducted for this species as part of this habitat assessment. This species is not expected to occur within the unnamed tributary based on the ephemeral nature of the stream and the lack of depth of the ponding water. This species has been reported occurring less than 1 mile east of the project area in the Russian River (CNDDB 2014).

Nesting Passerines: As stated previously, passerines, protected under the MBTA and Fish and Wildlife Code 3503, have potential to nest within the proposed project area. Bird species potentially nesting in the riparian area include California thrasher (*Toxostoma redivivum*), Allen's hummingbird (*Selasphorus sasin*), bushtit (*Psaltirparus minimus*) and oak titmouse (*Baeolophus inornatus*) that glean insects from the bark. As early as February, passerines begin courtship and once paired, they begin nest building, often around the beginning of March. Nest structures vary in shapes, sizes and composition and can include stick nests, mud nests, matted reeds and cavity nests. For example, black phoebes may build a stick nest under the eaves of a building. Depending on environmental conditions, young birds may fledge from the nest as early as May and, if the prey base is large, the adults may lay a second clutch of eggs.

Project Area Occurrence: No surveys were conducted for these species as part of this habitat assessment. Several passerine (perching birds) species may nest on the site in the various habitats, including, but not limited to, song sparrows along the coastal scrub, and white-breasted nuthatch in the oak trees. A nesting bird survey shall be conducted before removal of any of these habitats, and seasonal restrictions put into place for occupied habitats, to ensure no take of individuals will occur.

Nesting Raptors: Like passerines, raptors (birds of prey), such as red-shouldered hawk (*Buteo lineatus*), cooper's hawk (*Accipiter cooperii*), are protected under the Federal Migratory Bird Treaty Act and Fish and Wildlife Code 3503.5

General Ecology and Distribution: Raptors nest in a variety of substrates including, cavities, ledges and stick nests. For example, Cooper's hawks are small bird hunters, hunting on the edges of forests in broken forest and grassland habitats where passerines forage for seeds and insects. Nests occur in heavily forested areas near a water source. Research sites on nesting Cooper's hawks rarely show the nests more than a quarter of a mile away from water, whether it is a cattle tank, stream or seep (Snyder and Snyder 1975). Trees typically used by Cooper's hawks include coast live oaks, cottonwoods, and black oaks (Call 1978), as well as second growth conifer stands or deciduous riparian areas. In general, the breeding season for raptors occurs in late March through June, depending on the climate, with young fledging by early August.

Project Area Occurrence: No surveys were conducted for these species as part of this habitat assessment. However, several nests from previous years were observed along the eastern segment of the Proposed trail that could support nesting sharp-shinned hawks and Cooper's hawk. Northern harrier, white-tailed kite and red-shouldered hawk were observed foraging within the study area.

Roosting bats – including Townsend's big-eared bat, pallid bat, Yuma Myotis and hoary bat

Status: Proposed for listing as Endangered by CDFW, State Species of Concern, as well as Fish and Wildlife Code Sections 86, 2000, 2014, 3007, Title 14, Sections 15380, 15382.

General Ecology and Distribution: Bats in this region of California are not active year-round. During the maternity season, non-volant young of colonial bats remain in the roost until late summer (end of August), after which they may disperse from the natal roost or remain into or throughout the winter. Obligate tree-roosting bat species, and to some extent, colonial bats, may switch tree roosts frequently, particularly after young are volant, but are sometimes faithful for longer periods (weeks). During winter months, bats typically enter torpor, rousing only occasionally to drink water or opportunistically feed on insects. The onset of torpor is dependent upon environmental conditions, primarily temperature and rainfall. To prevent direct mortality of either non-volant young or torpid bats during winter months, roosts must not be disturbed or destroyed until bats are seasonally active, and only after they have been provide a means of escape from the roost.

Townsend's big-eared bats are found unevenly throughout most of the state from sea level to the Sierras, but are more restricted in their roost habitat selection, and more sensitive to human disturbance. This species is more strongly associated with cave and mine habitat, preferring large, open roosts, compared to smaller cavities or crevices. Roosts for this nomadic species may serve multiple functions throughout the year, and multiple sites may be used for different life stages (pregnancy, parturition, rearing, etc.). Males remain solitary during maternity season.

Pallid bats are eclectic in their roosting habitat selection, and to some extent distribution, and can be found in crevices and small cavities in rock outcrops, tree hollows, mines, caves, and a wide variety of man-made structures such as buildings, bridges and culverts, generally in lower to mid-elevation sites. This species forms maternity colonies, composed of dozens to sometimes hundreds of females and their young, and smaller bachelor colonies composed of males and not-yet reproductive females.

Western red bats have a broad, but disjunct, distribution throughout the state, and a wide range of elevations. Reproductive females are more common in the inland portions of the state than the Bay Area, where males are more common during the summer months. This is a foliage-roosting species typically associated with large-leaf trees, such as willows, cottonwoods, and sycamores, and is often found near riparian zones. Western red bats are typically solitary, however females give birth to two to five young, which is atypical compared to other bat species.

Project Area Occurrence: Building: Smaller bats, such as Brazilian free-tailed bats (*Tadarida brasiliensis*), Yuma myotis (*Myotis yumanensis*) and other *Myotis* species, have potential to roost in the on-site building, and evidence of bats was found during our site visit, which occurred during the 2014 season. The structure contains suitable day and/or night roost habitat to varying degrees. Non-SSC bat species, such as those mentioned above, have potential to occur in the building and to a lesser extent, trees containing suitable habitat. If large colonies of Brazilian free-tailed or Yuma myotis were to become established in the building, a significant impact to local breeding populations could occur if buildings are demolished without first conducting humane bat eviction or other appropriate measures. Please refer to the Impacts and Mitigation Measures for details on avoidance measures of roosting bats in buildings on this site.

Trees: Three trees on the project site contained suitable potential roost habitat. Pallid bats could roost in those trees with cavities, crevices and/or exfoliating bark; these could also support non-SSC bats such as hoary bats (*Lasiurus cinereus*), an obligate tree-roosting species, and *Myotis* species. In addition, western red bats, a SSC species, could potentially roost in the foliage of larger mature trees throughout the project site.

Please refer to the Impacts and Mitigation Measures for details on avoidance measures of roosting bats in trees on this site.

IMPACTS AND MITIGATION MEASURES

This section summarizes the potential temporary biological impacts from construction activities within the study area. The analysis of these impacts is based on a single reconnaissance-level survey of the study area, a review of existing databases and literature, and personal professional experience with biological resources of the region.

CEQA Guidelines Sections 15206 and 15380 were used to determine impact significance. Impacts are generally considered less than significant if the habitats and species affected are common and widespread in the region and the state.

A species may be treated as rare or endangered even if it has not been listed under CESA or FESA. Species are designated endangered when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, disease or other factors.

For the purposes of this report, three principal components in the evaluation were considered:

- Magnitude of the impact (e.g., substantial/not substantial)
- Uniqueness of the affected resource (rarity)
- Susceptibility of the affected resource to disturbance (sensitivity)

The evaluation of significance must consider the interrelationship of these three components. For example, a relatively small-magnitude impact (e.g., disturbing a nest) to a state or federally listed species would be considered significant because the species is at low population levels and is presumed to be susceptible to disturbance. Conversely, a common habitat such as non-native grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact (e.g., removal of extensive vegetation) would be required for it to be considered a significant impact.

Drainages

The property boundary is inclusive of the unnamed tributary to the Russian River, which is likely intermittent in La Nina conditions and perennial in El Nino conditions. The blue-line creek is one of many drainages of central Sonoma County flowing into the Russian River in the Dry Creek Area. The proposed project is situated on the eastern and western banks of its tributary (Figures 3 and 4). The unnamed tributary qualifies as a waters of the U.S. and waters of the state. The area within the ordinary high water mark is within the jurisdiction of the U. S. Army Corps of Engineers (Corps). The Regional Water Quality Control Board (RWQCB) takes jurisdiction from top of bank to top of bank and the California Department of Fish and Wildlife (CDFW) has jurisdiction over the bed and bank and any associated riparian woodland vegetation.

The creek within the project area is incised and the banks have been armored with concrete blocks and at least one old car body. Ben Monroe, Project Manager with Always Engineering, met with Adam McKannay with CDFW and Kaete King with the North Coast RWQCB on April 8, 2014 to discuss the proposed pedestrian bridge crossing for the creek. This meeting was documented in a memorandum prepared by Ms. King and addressed to Stephen Bargsten with the RWQCB and Ben Monroe dated April 22, 2014. As stated in the memorandum, the RWQCB will require a 401 water quality certification and/or waste discharge permit for project as the RWQCB takes jurisdiction from top of bank to top of bank of any creek drainages. A Section 1602 Streambed Alteration Agreement will also be required from CDFW. Because the bridge will span the creek it will not encroach upon the ordinary high water mark of the creek and therefore a Section 404 permit will not be required from the Corps.

Special-Status Plants

No special status plants were observed within the project area and none are expected to occur based on the lack of potential habitat. The grassland habitat on the site is dominated by non-native species and only a few, common native plants were observed on the site. No further analysis is required.

Vegetation Communities

CDFW and the RWQCB take jurisdiction over the bed and bank of creeks as waters of the state and the CDFW jurisdiction extends to include any riparian tree or shrub communities associated with the creek drainage. Impacts to the riparian tree and shrub community are considered to be significant impacts as this vegetation type is considered to have high value for wildlife and

A pedestrian ADA compliant bridge is proposed that would be installed to connect the parking area to the winery facilities on the other side of the creek. The bridge would be designed with footings outside the banks of the creek to minimize impacts.

Impact: The pedestrian bridge will be located to minimize impacts or removal of any riparian trees or shrubs although some tree or shrub trimming may be required. Any impacts to the riparian vegetation will require compensation. CDFW requires replacement of trees that are to be removed that are 4 inches DBH or greater with a replacement to loss ratio of 3:1 or greater.

Mitigation Measure: A Section 1602 Streambed Alteration Agreement from CDFW for impacts to the riparian tree community will be required prior to construction in addition to a 401 Water Quality Certification and/or waste discharge permit from the Regional Water Quality Control Board (RWQCB) for the pedestrian bridge crossing (RWQCB 2014). As part of the Streambed Alteration Agreement and RWQCB permit, submittal of a Habitat Mitigation and Monitoring Plan shall be prepared that will include the following elements:

- Development of a planting design that will provide as compensation for the loss of any riparian tree and shrub community. The pedestrian bridge is 5-feet wide so at a minimum there will be 5 feet on each side, for a total of 10 feet wide times the length of area covered by the footings. Compensation shall be at a 2:1 or 3:1 mitigation to loss ratio, depending on the requirements of the CDFW and RWQCB permits.
- A weed control plan will be included to eliminate invasive species from the project site. These include Himalayan blackberry, French broom, English ivy, periwinkle and poison hemlock.
- All bare areas will be seeded with a native seed mix designed for the site.
- The planting design will be developed by a profession qualified ecological restoration specialist.
- The plantings shall be maintained for five following plant installation. At the end of 5 years 80% of the plantings will have survived and be in a good, health vigorous condition.
- The plantings will receive regular weeding and maintenance.
- Annual reports will be required to be sent to CDFW for their approval.

Fish

No impacts to special status fisheries are expected to occur from this project, based on the avoidance and minimization measures proposed for this project, such as the bioswales associated with each building and parking lot to capture impervious surface runoff and the larger bioswale associated with the winery building will ensure no runoff into the creek from the proposed project.

Birds

Impact: Several passerine (perching birds) species observed on site, such as California towhee and scrub jays, build stick nests in trees and shrubs, while others, such as the white-breasted nuthatch and chestnut-backed chickadee, nest in tree cavities. Disturbance during the nesting season (February 15- August 15) may

result in the potential nest abandonment and mortality of young, which is considered a “take” of an individual. However, many of the species observed on the site were fledged juveniles from this year, which means that the nesting season has concluded in the project area.

Mitigation Measure: The following mitigation measures should be followed in order to avoid or minimize impacts to passerines and raptors that may potentially nest in the trees:

- 1) Grading or removal of nesting trees should be conducted outside the nesting season, which occurs between approximately February 15 and August 15.
- 2) If grading between August 15 and February 15 is infeasible and groundbreaking must occur within the nesting season, a pre-construction nesting bird (both passerine and raptor) survey of the grasslands and adjacent trees shall be performed by a qualified biologist within 7 days of groundbreaking. If no nesting birds are observed no further action is required and grading shall occur within one week of the survey to prevent “take” of individual birds that could begin nesting after the survey.
- 3) If active bird nests (either passerine and/or raptor) are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the nest tree(s) until the young have fledged, as determined by a qualified biologist.
- 4) The radius of the required buffer zone can vary depending on the species, (i.e., 75-100 feet for passerines and 200-300 feet for raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with CDFW.
- 5) To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree within which no machinery or workers shall intrude.
- 6) After the fencing is in place there will be no restrictions on grading or construction activities outside the prescribed buffer zones.

Mammals

Impact: Renovation of buildings may cause direct mortality of roosting bats that use the structures, if the structures are renovated during seasonal periods of inactivity (maternity season or winter), or without first conducting humane bat eviction or partial dismantling under supervision of a qualified bat biologist experienced with bats using man-made roosts.

Mitigation Measure: To prevent direct mortality of bats in the empty buildings on the project site, a bat habitat assessment must be conducted by a qualified bat biologist at least 3-6 months ahead of demolition. The bat habitat assessment will provide specific recommendations for humane bat eviction and/or partial dismantling to be followed for each building. In general, humane eviction of bats must occur during seasonal periods of bat activity, ***between March 1, or when evening temperatures are above 45F and rainfall less than ½” in 24 hours occurs, and April 15, prior to parturition of pups. The next acceptable period for humane eviction with suitable roosting habitat is after pups become self-sufficiently volant – September 1 through about October 15, or prior to evening temperatures dropping below 45F and onset of rainfall greater than ½” in 24 hours.***

Movement Corridors

The tributary to the Russian River is considered a potential movement corridor for aquatic wildlife, such as foothill yellow-legged frog and California red-legged frog, and terrestrial wildlife, such as raccoon. The proposed development is located 30 feet from the top of bank of the tributary, thus the project will not impeded movement by aquatic species.

The riparian corridor adjacent to the tributary may be used by terrestrial wildlife, such as striped skunk and deer. The proposed winery would not be a barrier to movement, and animals can move around the structures at night. Thus, no impediment to movement corridors will occur from the proposed project. After the project is built, no peripheral barriers, such as fencing, will be installed.

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Figure 2. Tributary in western portion of the site.



Figure 3. Approximate area of bridge crossing.



Figure 4. Non-native grassland in area of proposed winery building.

APPENDIX A: FEDERAL, STATE AND LOCAL PLANS, POLICIES, REGULATIONS AND ORDINANCES

Federal Endangered Species Act - U.S. Fish and Wildlife Service

Pursuant to ESA, the U.S. Fish and Wildlife Service (USFWS) has regulatory authority over federally listed species. Under ESA, a permit to “take” a listed species is required for any federal action that may harm an individual of that species. Take is defined under Section 9 of ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Under federal regulation, take is further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Section 7 of ESA requires all federal agencies to consult with USFWS to ensure that their actions are not likely to “jeopardize the continued existence” of any listed species or “result in the destruction or adverse modification” of designated critical habitat. No federal approvals or other actions are anticipated as being required to implement the project at this time. Therefore, consultation under Section 7 of ESA is not expected. However, if USACE determines that wetlands and/or other waters of the United States on the project site are subject to protection under Section 404 of the CWA, or any other federal action becomes necessary, consultation under Section 7 of ESA would be required.

For projects where federal action is not involved and take of a listed species may occur, the project proponent may seek to obtain a permit for incidental take under Section 10(a) of ESA. Section 10(a) of ESA allows USFWS to permit the incidental take of listed species if such take is accompanied by a habitat conservation plan (HCP) that includes components to minimize and mitigate impacts associated with the take. The permit is known as an incidental take permit. The project proponent must obtain a permit before conducting any otherwise-lawful activities that would result in the incidental take of a federally listed species.

Sections 404 and 401 of the Clean Water Act - U.S. Army Corps of Engineers

USACE regulates the discharge of dredged or fill material into waters of the United States under Section 404 of the CWA. Waters of the United States are defined as waters where use, degradation, or destruction could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are somehow connected to any of these waters or their tributaries. Wetlands are defined as areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands falling under USACE jurisdiction must demonstrate the presence of three specific wetland parameters: hydric soils, hydrophytic vegetation, and sufficient wetland hydrology. Generally, wetlands include swamps, marshes, bogs, and similar areas. Lakes, rivers, and streams are defined as “other waters.” Jurisdictional limits of these features are typically noted by the ordinary high-water mark (OHWM). The OHWM is the line on the shore or bank that is established by the fluctuations of water and indicated by physical characteristics, such as a clear, natural line impressed on the bank, shelving, changes in soils, lack of woody or terrestrial vegetation, the presence of litter or debris, or other characteristics of the surrounding areas.

Isolated ponds or seasonal depressions had been previously regulated as waters of the United States. However, in *Solid Waste Agency of Northwestern Cook County (SWANCC) v. United States Army Corps of Engineers et al.* (January 8, 2001), the U.S. Supreme Court ruled that certain “isolated” wetlands (e.g., nonnavigable, isolated, and intrastate) do not fall under the jurisdiction of the CWA and are no longer under USACE jurisdiction (although isolated wetlands are regulated by the State of California under the Porter-Cologne Water Quality Control Act—see discussion below). Some circuit courts (e.g., *U.S. v. Deaton*, 2003; *U.S. v. Rapanos*, 2003; *Northern California River Watch v. City of Healdsburg*, 2006), however, have ruled that the SWANCC opinion does not prevent CWA jurisdiction if a “significant nexus” such as a hydrologic connection exists, whether it be human-made (e.g., roadside ditch) or natural tributary to navigable waters, or direct seepage from the wetland to the navigable water, a surface or underground hydraulic connection, an ecological connection (e.g., the same bird, mammal, and fish populations are supported by both the wetland

and the navigable water), and changes to chemical concentrations in the navigable water due to water from the wetland.

Section 404 prohibits the discharge of dredged or fill material into waters of the United States (including wetlands) without a permit from USACE. With respect to the proposed project, the discharge of dredged or fill material includes the following activities:

- placement of fill that is necessary for the construction of any structure or infrastructure in a water of the United States;
- the building of any structure, infrastructure, or impoundment requiring rock, sand, dirt, or other material for its construction;
- site-development fills for recreational, industrial, commercial, residential, or other uses; and
- construction of causeways or road fills.

The regulations and policies of USACE, the U.S. Environmental Protection Agency (EPA), and USFWS mandate that the filling of wetlands be avoided unless it can be demonstrated that no practicable alternatives (to filling wetlands) exist. If the placement of fill into waters of the U.S., including wetlands, meets certain criteria the project be permitted under one of the Nation Wide Permits (NWP), which is an expedited permit process.

Section 401 of the CWA requires an applicant for any federal permit that may result in a discharge into waters of the United States to obtain a certification from the state that the discharge will comply with provisions of the CWA. The regional water quality control boards (RWQCBs) administer this program. Any condition of water quality certification would be incorporated into the USACE permit. The state has a policy of no net loss of wetlands and typically requires mitigation for impacts on wetlands before it will issue a water quality certification.

Essential Fish Habitat - National Marine Fisheries Service

Essential Fish Habitat (EFH) is regulated through the National Marine Fisheries Service (NMFS), a division of the National Oceanic and Atmospheric Administration (NOAA). Protection of EFH is mandated through changes implemented in 1996 to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to protect the loss of habitat necessary to maintain sustainable fisheries in the United States. The Magnuson-Stevens Act defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. 1802(10)). NMFS further defines essential fish habitat as areas that "contain habitat essential to the long-term survival and health of our nation's fisheries" (NMFS 2007). EFH can include the water column, bottom substrate types such as gravels suitable in size for salmonid spawning, and vegetation and woody structures that provided habitat for rearing. Under regulatory guidelines issued by NMFS, any federal agency that authorizes, funds, or undertakes action that may affect EFH is required to consult with NMFS (50 CFR 600.920).

California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) (FGC §§ 2050–2116) is administered by the California Department of Fish and Wildlife. The CESA prohibits the "taking" of listed species except as otherwise provided in state law. The CESA includes FGC Sections 2050–2116, and policy of the state to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat. The CESA requires mitigation measures or alternatives to a proposed project to address impacts to any State listed endangered, threatened or candidate species, or if a project would jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy. Section 86 of the FGC defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Unlike the ESA, CESA applies the take prohibitions to species under petition for listing (state candidates) in addition to listed

species. Section 2081 of the FGC expressly allows DFG to authorize the incidental take of endangered, threatened, and candidate species if all of the following conditions are met:

- The take is incidental to an otherwise lawful activity.
- The impacts of the authorized take are minimized and fully mitigated.
- Issuance of the permit will not jeopardize the continued existence of the species.
- The permit is consistent with any regulations adopted in accordance with §§ 2112 and 2114 (legislature-funded recovery strategy pilot programs in the affected area).
- The applicant ensures that adequate funding is provided for implementing mitigation measures and monitoring compliance with these measures and their effectiveness.

The CESA provides that if a person obtains an incidental take permit under specified provisions of the ESA for species also listed under the CESA, no further authorization is necessary under CESA if the federal permit satisfies all the requirements of CESA and the person follows specified steps (FGC § 2080.1).

California Environmental Quality Act (CEQA)

CEQA is a California statute passed in 1970, shortly after the United States federal government passed NEPA, to institute a statewide policy of environmental protection. CEQA does not directly regulate land uses, but instead requires state and local agencies within California to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects and adopt all feasible measures to mitigate those impacts.

The CEQA statute, California Public Resources Code § 21000 et seq., codifies a statewide policy of environmental protection. According to CEQA, all state and local agencies must give major consideration to environmental protection in regulating public and private activities, and should not approve projects for which there exist feasible and environmentally superior mitigation measures or alternatives.

Species Protection under California Department of Fish and Wildlife

The CDFW is established under the Fish and Game Code (FGC) (FGC § 700) and states that the fish and wildlife resources of the state are held in trust for the people of the state by and through CDFW (FGC § 711.7(a)). All licenses, permits, tag reservations and other entitlements for the take of fish and game authorized by FGC are prepared and issued by CDFW (FGC § 1050 (a)).

Provisions of the FGC provide special protection to certain enumerated species such as:

- § 3503 protects eggs and nests of all birds.
- § 3503.5 protects birds of prey and their nests.
- § 3511 lists fully protected birds.
- § 3513 protects all birds covered under the federal Migratory Bird Treaty Act.
- § 3800 defines nongame birds.
- § 4150 defines nongame mammals.
- § 4700 lists fully protected mammals.
- § 5050 lists fully protected amphibians and reptiles.
- § 5515 lists fully protected fish species.

In addition, the Native Plant Protection Act (NPPA), directs the CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." As a result, the NPPA allows the California Fish and Game Commission to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants.

California Native Plant Society (CNPS)

The California Native Plant Society (CNPS) is a statewide non-profit organization dedicated to the monitoring and protection of sensitive species in California. The CNPS publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California, focusing on geographic distribution and qualitative characterization of rare, threatened, or endangered vascular plant species of California. The list serves as the candidate list for listing as threatened and endangered by the CDFG. The Inventory assigns plants to the following categories:

- A. Presumed Extinct in California
- B. Rare or endangered in California and elsewhere
- Rare or endangered in California, more common elsewhere
- Plants for which more information is needed
- Plants of limited distribution.

Additional rarity, endangerment, and distribution codes are assigned to each taxa.

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing, and the Department recommends they be addressed in CEQA projects (CEQA Guidelines Section 15380). However, a plant need not be in the Inventory to be considered a rare, threatened, or endangered species under CEQA. In addition, the DFG recommends, and local governments may require, protection of plants which are regionally significant, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 and 4.

Waters of the State - California Regional Water Quality Control Board

The term “Waters of the State” is defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes “isolated” wetlands and waters that may not be regulated by the USACE under Section 404. “Waters of the State” are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact “Waters of the State,” are required to comply with the terms of the Water Quality Certification determination.

If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to “Waters of the State,” the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat - California Department of Fish and Game

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFG under Sections 1600-1616 of the State Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, “on, or pertaining to, the banks of a stream;” therefore, riparian vegetation is defined as, “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG ESD 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFG.

Native Tree Protection and Preservation - Sonoma County

Pursuant to the Sonoma County Native Tree Protection and Preservation Ordinance, Chapters 25 and 26 of the Sonoma County Zoning Regulations, the County requires that projects shall be designed to minimize the destruction of protected trees.. Trees protected include the following: Big Leaf Maple (*Acer macrophyllum*), Black Oak (*Quercus kelloggii*), Blue Oak (*Quercus douglasii*), Coast Live Oak (*Quercus agrifolia*), Interior Live Oak (*Quercus wislizenii*), Madrone (*Arbutus menziesii*), Oracle Oak (*Quercus morehus*), Oregon Oak

(*Quercus garryana*), Redwood (*Sequoia sempervirens*), Valley Oak (*Quercus lobata*), California Bay (*Umbellularia californica*), and their hybrids.

With development permits a site plan shall be submitted that depicts the location of all protected trees greater than nine inches (9") and their protected perimeters in areas that will be impacted by the proposed development, such as the building envelopes, access roads, leachfields, etc. Lot line adjustments, zoning permits and agricultural uses are exempt from this requirement. The provisions of this section shall not apply to trees which are the subject of a valid timber harvesting permit approved by the state of California. This section shall not be applied in a manner that would reduce allowable density lower than that permitted as a result of CEQA or by other county ordinances or render a property undevelopable. To achieve this end, adjustments may be made.

Replacement trees may be located on residentially zoned parcels of at least one and one-half acres and on any commercial or industrial zoned parcel, regardless of size, where feasible. Where infeasible, they may be located on public lands or maintained private open space. In-lieu fees may be used to acquire and protect stands of native trees in preserves or place trees on public lands.

Permits to remove trees will take into account the environmental effects of removal, possible alternatives to removal, and whether preservation unreasonably interferes with development of the parcel. Required mitigation may include:

1. establishment and maintenance of replacement trees;
2. a detailed mitigation management plan;
3. removal of invasive exotics; and
4. posting of a bond to cover the cost of an inspection to ensure the success of measures
5. described above.

Policy for Riparian Corridors - Sonoma County General Plan Open Space and Resource Conservation (OSRC) Element:

The Sonoma County General Plan OSRC Element (SCPRMD 2008) establishes goals and objectives for Riparian Corridors. The relevant goals and policies to this project are:

Goal OSRC-8: Protect and enhance Riparian Corridors and functions along streams, balancing the need for agricultural production, urban development, timber and mining operations, and other land uses with the preservation of riparian vegetation, protection of water resources, flood control, bank stabilization, and other riparian functions and values.

Objective OSRC-8.1: Designate all streams shown on USGS 7.5 minute quadrangle topographic maps as of March 18, 2003, as Riparian Corridors and establish streamside conservation areas along these designated corridors.

Objective OSRC-8.2: Provide standards for land use and development in streamside conservation areas that protect riparian vegetation, water resources and habitat values while considering the needs of residents, agriculture, businesses and other land users.

Objective OSRC-8.3: Recognize and protect riparian functions and values of undesignated streams during review of discretionary projects/

Policy OSRC-8a: Classify "Riparian Corridors" designated in the Open Space and Resource Conservation Element as follows:

(1) “Russian River Riparian Corridor” is the corridor adjacent to the main stem of the Russian River, excluding lands located within the Urban Residential, Commercial, Industrial, or Public-Quasi Public land use categories or within the jurisdiction of a city.

(2) “Flatland Riparian Corridors” are the corridors adjacent to designated streams in the 1989 General Plan that flow through predominantly flat or very gently sloping land, generally with alluvial soil. This classification excludes areas located within the “Russian River Riparian Corridor” or within the Urban Residential, Commercial, Industrial, or Public/Quasi-Public land use categories.

(3) “Other Riparian Corridors” are the corridors adjacent to all designated streams not included in (1) or (2) above.*

Policy OSRC-8b: Establish streamside conservation areas along both sides of designated Riparian Corridors as follows, measured from the top of the higher bank on each side of the stream as determined by PRMD:

- (1) Russian River Riparian Corridor: 200'
- (2) Flatland Riparian Corridors: 100'
- (3) Other Riparian Corridors: 50'*

Policy OSRC-8e: Prohibit, except as otherwise allowed by Policy OSRC-8d, grading, vegetation removal, agricultural cultivation, structures, roads, utility lines, and parking lots within any streamside conservation area. Consider an exception to this prohibition if:

- (1) It makes a lot unbuildable and vegetation removal is minimized,
- (2) The use involves the minor expansion of an existing structure where it is demonstrated that the expansion will be accomplished with minimum damage to riparian functions,
- (3) The use involves only the maintenance or restoration of an existing structure or a non-structural use,
- (4) It can be clearly demonstrated through photographs or other information that the affected area has no substantial value for riparian functions, or
- (5) A conservation plan is approved that provides for the appropriate protection of the biotic resources, water quality, flood management, bank stability, groundwater recharge, and other applicable riparian functions. Until the County adopts mitigation standards and procedures for specific uses and riparian functions, prior to approving the conservation plan, consult on areas of concern with the Resource Conservation District, Agricultural Commissioner, and resource agencies that are applicable to the proposed plan.*

Appendix B: Potentially Occurring Special-Status Plant Species in the Study Area

Scientific Name Common Name	Status USFWS/ CDFW/ CNPS list	Habitat Affinities and Blooming Period/Life Form	Potential for Occurrence
<i>Alopecurus aequalis</i> var. <i>sonomensis</i> Sonoma alopecurus	FE/-/1B	Freshwater marshes and riparian scrub. Blooms May to July.	None. Typical habitat not present in project area. Not observed during surveys.
<i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	FSC/-/1B	Broadleaved upland forest, Chaparral, cismontane woodland. Blooms April to July.	None. No habitat in project area. Not observed during surveys.
<i>Arctostaphylos bakeri</i> ssp. <i>sublaevis</i> The Cedars manzanita	-/CR/1B	Closed-cone coniferous forest, chaparral on serpentinite seeps. Blooms February to May.	None. No habitat in project area. Not observed during surveys.
<i>Blennosperma bakeri</i> Sonoma sunshine	FE/CE/1B	Mesic sites in valley and foothill grassland, vernal pools. Blooms March to May.	None. No habitat in project area. Not observed during surveys.
<i>Brodiaea leptandra</i> Narrow-anthered California brodiaea	FSC/-/1B	Broadleaved upland forest, chaparral, lower montane coniferous forest. Blooms May to July.	None. No habitat in project area. Not observed during surveys.
<i>Carex comosa</i> Bristly sedge	-/-/2	Coastal prairie, marshes and swamps, lake margins, mesic sites in grasslands. Blooms May to Sept.	None. No habitat in project area. Not observed during surveys.
<i>Castilleja ambigua</i> ssp. <i>ambigua</i> Johnny-nip	-/-/4	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pool margins. Blooms March to August.	None. No habitat in project area. Not observed during surveys.
<i>Ceanothus confusus</i> Rincon Ridge Ceanothus	FSC/-/1B	Closed-cone coniferous forest, chaparral, cismontane woodland, volcanic or serpentine substrate. Blooms February to April.	None. No habitat in project area. Not observed during surveys.
<i>Ceanothus purpureus</i> Holy-leaved ceanothus	-/-/1B	Chaparral and cismontane woodland with rocky, volcanic substrate. Blooms February to June.	None. No habitat in project area. Not observed during surveys.
<i>Centromadia parryi</i> ssp. <i>parryi</i> Pappose tarplant	-/-/1B	Chaparral, coastal prairie, coastal salt meadows and swamps, valley and foothill grassland (vernally mesic)/often alkaline. Blooms May to November	None. No habitat in project area. Not observed during surveys.

Scientific Name Common Name	Status USFWS/ CDFW/ CNPS list	Habitat Affinities and Blooming Period/Life Form	Potential for Occurrence
<i>Cordylanthus tenuis</i> ssp. <i>capillaris</i> Pennell's bird's-beak	FE/CR/1B	Closed-cone coniferous forest and chaparral on serpentine. Blooms June to September.	None. No habitat in project area. Not observed during surveys.
<i>Cypripedium montanum</i> Mountain lady's-slipper	-/-/4	Broadleaved upland forest, cismontane woodland, lower montane coniferous forest, North Coast coniferous forest. Blooms March to August.	None. No habitat in project area. Not observed during surveys.
<i>Downingia pusilla</i> Dwarf downingia	-/-/2	Vernal pools and mesic sites in grassland. Blooms March to May	None. No habitat in project area. Not observed during surveys.
<i>Erigeron serpentinus</i> Serpentine daisy	-/-/1B	Chaparral with serpentine soils or seeps. Blooms May to August.	None. No habitat in project area. Not observed during surveys.
<i>Fritillaria liliacea</i> Fragrant fritillary	-/-/1B	Cismontane woodland, coastal prairie, coastal scrub, grassland. Blooms February to April.	None. Typical habitat not in project area. Not observed during surveys.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> Seaside tarplant	-/-/1B	Valley and foothill grassland, sometimes roadsides. Blooms April-November.	None. Not observed during surveys.
<i>Hesperervax caulescens</i> Hogwallow starfish	-/-/4	Valley and foothill grassland (mesic, clay) and vernal pools (shallow). Blooms March to June.	None. Typical habitat not in project area. Not observed during surveys.
<i>Horkelia tenuiloba</i> Thin-lobed horkelia	FSC/-/1B	Mesic openings in broadleaved upland forest and chaparral on sandy substrate. Blooms May to July.	None. No habitat in project area. Not observed during surveys.
<i>Lasthenia burkei</i> Burke's goldfields	FE/CE/1B	Vernal pools, meadows, seeps. Blooms April to June.	None. No habitat in project area. Not observed during surveys.
<i>Lessingia arachnoidea</i> Crystal Springs lessingia	-/-/1B	Cismontane woodland, coastal scrub, valley and foothill grassland on serpentinite, often on roadsides. Blooms July to October.	None. No habitat in project area.
<i>Limnanthes vinculans</i> Sebastopol meadowfoam	FE/CE/1B	Meadows and seeps, vernal pools, grassland, vernal mesic sites. Blooms April to May.	None. No habitat in project area. Not observed during surveys.
<i>Microseris paludosa</i> Marsh microseris	-/-/1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, grassland. Blooms April to June.	None. Not observed during surveys.

Scientific Name Common Name	Status USFWS/ CDFW/ CNPS list	Habitat Affinities and Blooming Period/Life Form	Potential for Occurrence
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i> <i>Baker's navarretia</i>	-/-/1B	Cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, vernal pools/mesic. Blooms April to July.	None. Typical habitat not project area. Not observed during surveys.
<i>Navarretia leucocephala</i> ssp. <i>plieantha</i> Many-flowered navarretia	FE/CE/1B	Volcanic ash flow vernal pools. Blooms May to June.	None. No habitat in project area. Not observed during surveys.
<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i> Gardner's yampa	-/-/4	Broadleaved upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools in vernal mesic areas. Blooms June to October.	None. Typical habitat not in project area. Not observed during surveys.
<i>Ranunculus lobbii</i> Lobb's aquatic buttercup	-/-/4	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools. Blooms February to May.	None. Typical habitat not in project area. Not observed during surveys.
<i>Usnea longissima</i> Long-bear lichen	-/-/4	North coast coniferous forest, broadleaved upland forest. Grows in the "redwood zone" on a variety of trees including big leaf maple, oaks, ash, Douglas fir and bay.	None. Project area not in "redwood zone".

NOTES:

U.S. FISH AND WILDLIFE SERVICE

FE = federally listed Endangered

FT = federally listed Threatened

CALIFORNIA DEPT. OF FISH AND WILDLIFE

CE = California listed Endangered

CR = California listed as Rare

CT = California listed as Threatened

CALIFORNIA NATIVE PLANT SOCIETY -

List 1: Plants of highest priority

List 1A: Plants presumed extinct in California

List 1B: Plants rare and endangered in California and elsewhere

List 2: Plants rare and endangered in California but more common elsewhere

List 3: Plants about which additional data are needed

Appendix C: Potentially Occurring Special-Status Animal Species in the Project Area

Common Name Scientific Name	Status USFWS/ CDFW	Habitat Affinities and Reported Localities in the Project Area	Occurrence for Potential
Invertebrates			
Giuliani's dubiraphian riffle beetle <i>Dubiraphia giulianii</i>	-/CSC	Inhabits exposed, wave-washed willow roots in the slow flows of the Russian River.	None: No habitat present.
California linderiella <i>Linderiella occidentalis</i>	-/CSC	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	None: No habitat present.
Fish			
Russian River tule perch <i>Hysterothorax traskii</i> <i>pomo</i>	-/SSC	Occurs in low elevation streams of the Russian River. Requires clear, flowing water with abundant cover and deep (>1M) pool habitat.	None: No habitat present.
Navarro roach <i>Lavinia symmetricus</i> <i>navarroensis</i>	-/SSC	Habitat generalists, found in warm intermittent streams as well as cold, well-aerated streams.	None: No habitat present.
Coho salmon - Central California Coast ESU <i>Onchorhynchus kisutch</i>	FE/SE	Occurs from Punta Gorda, in northern California, to the San Lorenzo River, in Santa Cruz County, and includes coho salmon populations from several tributaries of San Francisco Bay (e.g., Corte Madera and Mill Valley Creek).	None: No habitat present.
steelhead - Central California Coast DPS <i>Onchorhynchus mykiss</i>	FT/SSC	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen. Species reported in Russian River (CNDDDB 2014).	None: No habitat present.
Amphibians			
foothill yellow-legged frog <i>Rana boylei</i>	-/ SSC	Inhabits permanent, flowing stream courses with a cobble substrate and a mixture of open canopy riparian vegetation. Species reported more than 3 miles in distance from project site (CNDDDB 2012).	None: No habitat present.
California red-legged frog <i>Rana draytonii</i>	FT/ SSC	Prefers semi-permanent and permanent stream pools, ponds and creeks with emergent and/or riparian vegetation. Occupies upland habitat especially during the wet winter months. Species reported more than 3 miles in distance from project site (CNDDDB 2014).	Low: suitable habitat present near perennial ponds.
Reptiles			
western pond turtle <i>Emys marmorata</i> <i>marmorata</i>	-/ SSC	Prefers permanent, slow-moving creeks, streams, ponds, rivers, marshes and irrigation ditches with basking sites and a vegetated shoreline. Requires upland sites for egg-laying. Species reported more in Russian River (CNDDDB 2014).	Low: suitable habitat present near perennial ponds.
Birds			
Cooper's hawk <i>Accipiter cooperi</i>	MB/ SSC	Nests primarily in deciduous riparian forests. May also occupy dense canopied forests from gray pine-oak woodland to ponderosa pine. Forages in open woodlands.	Moderate: potential nesting occurs along the tributary.

Common Name Scientific Name	Status USFWS/ CDFW	Habitat Affinities and Reported Localities in the Project Area	Occurrence for Potential
sharp-shinned hawk <i>Accipiter striatus</i>	MB/ SSC	Dense canopy pine or mixed conifer forest and riparian habitats. Water within one mile required.	Low: potential nesting occurs along the tributary
Great blue heron <i>Ardea herodias</i>	MB/ SSC	Nests colonially in large trees near water	None: No habitat present.
white-tailed kite <i>Elanus leucurus</i>	MB/CFP	Inhabits low rolling foothills and valley margins with scattered oaks and river bottom- lands or marshes adjacent to deciduous woodlands. Prefers open grasslands, meadows and marshes for foraging close to isolated, dense-topped trees for nesting and perching.	None: No habitat present. Would have been protected.
Osprey <i>Pandion haliaetus</i>	-/SSC	Nests in large trees within 15 miles of good fish-producing water body.	None: No habitat present. Would have been protected.
black phoebe <i>Sayornis nigricans</i>	MB/-	Nests in anthropogenic structures on ledges. Nest made of mud pellets, dry grasses, weed stems, plant fibers and hair.	High: potential nesting on existing structure.
Mammals*			
pallid bat <i>Antrozous pallidus</i>	-/SSC, WBWG:H	Day roosts in crevices and cavities in rock outcrops, mines, caves, buildings, bridges, properly-designed bat houses, as well as hollows and cavities in a wide variety of tree species. May roost alone, in small groups (2 to 20 bats), or in 100s in maternity roosts, with males and non-reproductive subadults in other, smaller roosts. High reliance on oak woodland habitat in many portions of its range in California, but uses a wide variety of vegetative habitat for foraging. Forages on larger prey taken on the ground or in the air, usually within 6-km of the day roost.	Low: roosting habitat present
Townsend's big-eared bat <i>Corynorhinus townsendii townsendii</i>	-/CPE, WBWG:H	Day roosts in cave analogs; mines, buildings, bridges, sometimes large tree hollows. Particularly sensitive to roost disturbance, this species has declined throughout its range in California; very few maternity roosts are known in California. Switches roosts seasonally, sometimes within each season. Females form maternity colonies, males roost singly, and all disperse widely after maternity season. During winter, roosts in cold, but non-freezing roosts, which may include man-made structures. Forages in a variety of habitats, consistently in riparian and stream corridors, avoiding open habitat. May commute relatively long distances to forage.	Low: roosting habitat present

Common Name Scientific Name	Status USFWS/ CDFW	Habitat Affinities and Reported Localities in the Project Area	Occurrence for Potential
Western red bat <i>Lasiurus blossevillii</i>	-/SSC, WBWG:H	Solitary roosting, except when females are with young (from 2 to 6 are born). Roosts almost exclusively in foliage, under overhanging leaves, in woodland borders, rivers, agricultural areas including orchards, and urban areas with mature trees. Typically found in large cottonwoods, sycamores, walnuts and willows associated with riparian habitats. Forages over mature orchards, oak woodland, low elevation conifer forests, riparian corridors, non-native trees in urban and rural residential areas, and around strong lighting	Medium: roosting habitat present along riparian corridor.
Hoary bat <i>Lasiurus cinereus</i>	-/-, WBWG:M	Roosts singly except when females are with young (from 2 to 4 are born) in dense foliage of medium to large coniferous and deciduous trees. Highly migratory, occurs from sea level to tree line in Sierra Nevada. Summer records predominantly male. Forages along stream and river corridors, open water bodies, meadows, and open forest above canopy.	Low: roosting habitat present along riparian corridor.
California myotis <i>Myotis californicus</i>	-/-	Females give birth to one young. Typically roosts alone or in small groups in almost every habitat from desert to mountains, but most abundant at lower to mid-elevations. Roosts in crevices in rocks, slabs, hollow trees, exfoliating bark, buildings, mines. In trees may exhibit low roost fidelity, switching frequently. Emerges early in evening, forages along tree margins, canopy edge, over water, along trails and higher above ground in open habitat. Typically hibernates.	Moderate: potential habitat in building.
Western small-footed myotis <i>Myotis ciliolabrum</i>	-/-, WBWG:M	Females give birth to one young, roosts singly or in small maternity groups in cliff and rock crevices, tree snags, buildings, concrete bridges and viaducts, caves and mines, occasionally under tree bark, swallow nests – males roost singly. Forages in early evening near rocks, bluffs, cliffs and tree margins, as well as water courses, and man-made water impoundments. Hibernates in small numbers.	Moderate: potential habitat in building
long-eared myotis <i>Myotis evotis</i>	-/-, WBWG:M	Reproductive females form small maternity colonies between 2-30 individuals; males and non-reproductive females roost singly or in small groups nearby. Found from coastal forests to high elevation, is absent from Central Valley and Sonoran and Colorado desert regions. May switch roosts frequently. Day roosts in hollow trees, under exfoliating bark, caves, mines, bridges, buildings and crevices in rock outcrops, under bark of small black oaks in northern California, also use mixed conifer forests throughout California. Nights roosts include bridges, caves. May hibernate.	Low: roosting habitat present along riparian corridor and building

Common Name <i>Scientific Name</i>	Status USFWS/ CDFW	Habitat Affinities and Reported Localities in the Project Area	Occurrence for Potential
fringed myotis <i>Myotis thysanodes</i>	-/-, WBWG:H	Roosts colonially, up to 2,000 individuals. Females form maternity roosts, give birth to one young. Found from coast to ca. 1,800 m in Sierra Nevadas, though most are known to the west of that range. Rare in all localities, data suggests serious population declines. Roosts in rock crevices, caves, mines, buildings and bridges, as well as tree hollows, particularly large conifer snags. Occurs in xeric woodland, hot desert-scrub, grassland, sage-grassland steppe, spruce-fir, mesic old growth forest, coniferous and deciduous/coniferous forests. Forages over secondary streams in fairly cluttered habitat, over meadows. May hibernate or use intermittent torpor.	Low: roosting habitat present in building
Yuma myotis <i>Myotis yumanensis</i>	-/-, WBWG:M	Forms often large maternity colonies, females giving birth to one young. Generally confined to lower elevations from sea level to up to 1,300 m in central Sierra Nevada and 2,000 m in southern Sierra Nevada. Males roost singly. Primarily a crevice roosting species in natural habitat, forms large maternity colonies in large spaces in man-made roosts, e.g. buildings. Also uses bridges, caves, mines, tree cavities, bat houses, abandoned swallow nests, exfoliating bark. Emerges early and forages almost exclusively over quiet water – ponds, pools, reservoirs, swimming pools. Appears to migrate, may hibernate in colder portions of their range.	Moderate: potential habitat in building
Brazilian free-tailed bat <i>Tadarida brasiliensis</i>	-/-	Found in large to very large colonies (several hundred to millions), females giving birth to single young in maternity roosts. Found almost everywhere throughout California, from sea level up to about 3,700 m in some western mountain ranges, but mostly below about 2,000 m. Crevice and cavity dwellers, uses rock crevices, caves, mines, buildings, bridges, tunnels, bat houses, culverts, abandoned swallow nests. Forages from 6 m to thousands of meters above ground, often very large distances (<50 km) from day roost. Migrates in colder portions of range, or makes winter movements to Coast Range where it remains active or semi-active throughout winter, using torpor. Can remain active throughout winter in southern portion of state.	Moderate: potential habitat in building

* Includes bat species expected to occur in the project region and vicinity based on known roosting ecology and habitat relationships, but not reported in the CNDDB.

U.S. FISH AND WILDLIFE SERVICE

FE = federally listed Endangered

FT = federally listed Threatened
FC = federal candidate for listing
FSC = federal Species of Concern
MBTA = Migratory Bird Treaty Act.

CALIFORNIA DEPT. OF FISH AND WILDLIFE

CE = California listed Endangered
CT = California listed as Threatened
SSC = Species of Special Concern

WESTERN BAT WORKING GROUP

WBWG:H - High

WBWG:M - Medium

Appendix D: Plant species observed April 22, 2014

Scientific Name	Common Name
<i>Aesculus californica</i>	California buckeye
<i>Anagallis arvensis</i>	Scarlet pimpernel*
<i>Anthemis cotula</i>	Mayweed*
<i>Avena barbata</i>	Slender wild oats*
<i>Avena fatua</i>	Oats*
<i>Baccharis pilularis</i>	Coyote bush
<i>Brassica nigra</i>	Black mustard*
<i>Briza maxima</i>	Large quaking grass*
<i>Bromus alopecuroides</i>	Poverty brome*
<i>Bromus carinatus</i>	California brome
<i>Bromus diandrus</i>	Ripgut brome*
<i>Bromus hordeaceus</i>	Soft chess*
<i>Carduus pycnocephalus</i>	Italian thistle*
<i>Cirsium vulgare</i>	Bull thistle*
<i>Conium maculatum</i>	Poison hemlock*
<i>Eleocharis macrostachya</i>	Spike rush
<i>Erigeron bonariensis</i>	Horse weed*
<i>Erodium botrys</i>	Broad leaved filaree*
<i>Erodium cicutarium</i>	Red stemmed filaree*
<i>Festuca myuros</i>	Rattail fescue*
<i>Festuca perennis</i>	Ryegrass*
<i>Foeniculum vulgare</i>	Fennel*
<i>Fraxinus latifolia</i>	Oregon ash
<i>Galium aparine</i>	Bedstraw*
<i>Genista monspessulana</i>	French broom*
<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Mediterranean barley*
<i>Hordeum murinum</i> ssp. <i>leporinum</i>	Hare barley*
<i>Hypochaeris radicata</i>	Rough cat's-ear*
<i>Juglans hindsii</i>	Northern California black walnut
<i>Juncus patens</i>	Spreading rush
<i>Lactuca serriola</i>	Prickly lettuce*
<i>Malva</i> sp.	Mallow*
<i>Marah fabaceus</i>	Manroot
<i>Phalaris aquatica</i>	Harding grass*
<i>Plantago lanceolata</i>	English plantain
<i>Poa annua</i>	Annual bluegrass*
<i>Polygonum aviculare</i>	Knotweed*
<i>Quercus agrifolia</i>	Coast live oak
<i>Quercus lobata</i>	Valley oak
<i>Raphanus sativus</i>	Wild radish*
<i>Rosa californica</i>	California rose
<i>Rubus armeniacus</i>	Himalayan blackberry
<i>Rubus ursinus</i>	California blackberry
<i>Rumex crispus</i>	Curly dock*
<i>Salix exigua</i>	Narrow-leaved willow
<i>Salix laevigata</i>	Red willow
<i>Salix lasiolepis</i>	Arroyo willow
<i>Sambucus nigra</i> ssp. <i>canadensis</i>	Blue elderberry

Scientific Name	Common Name
<i>Scrophularia californica</i>	California bee plant
<i>Sonchus asper</i>	Prickly sow thistle*
<i>Symphoricarpos albus</i> var. <i>laevigatus</i>	Snowberry
<i>Toxicodendron diversilobum</i>	Poison oak
<i>Typha latifolia</i>	Cattail
<i>Umbellularia californica</i>	California bay laurel
<i>Urtica dioica</i>	Stinging nettle
<i>Vinca major</i>	Periwinkle*
<i>Vitis californica</i>	California grape
<i>Vitis vinifera</i>	Grapes*

Appendix E: Wildlife species observed during April 22, 2014

<i>Scientific Name</i>	Common Name
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Calypte anna</i>	Anna's hummingbird
<i>Picoides pubescens</i>	Downy woodpecker
<i>Sayornis saya</i>	Say's phoebe
<i>Tachycineta bicolor</i>	Tree Swallow
<i>Aphelocoma californica</i>	Western scrub jay
<i>Corvus brachyrhynchos</i>	American crow
<i>Junco hyemalis</i>	Dark-eyed junco
<i>Melospiza crissalis</i>	California towhee
<i>Pipilo maculatus</i>	Spotted towhee
<i>Odocoileus hemionus californicus</i>	Black-tailed deer (sign)
<i>Mephitis mephitis</i>	Skunk (sign)
<i>Procyon lotor</i>	Raccoon (sign)