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Biological Resources Assessment
1801 Ridley Avenue
Santa Rosa, Sonoma County, California



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This assessment is based on information available at the time of the study and on-site conditions that were observed on the date of the site visits referenced in the report. In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of the biologist with experience working with the species and habitats. For some threatened and endangered species, a site survey at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies.

EXECUTIVE SUMMARY

This report presents the results of a biological resource assessment conducted for 2.61 acres located west of Ridley Ave, south of Larry Lane and approximately 1/8 mile north of Guerneville Road in western Santa Rosa, Sonoma County, California. The property is undeveloped grassland with single-family residences to the south and west and partial open space and developed areas to the north (Figure 1).

The purpose of the biological resource assessment is to identify special-status plant and wildlife species and sensitive habitats (including wetlands and creeks) that have the potential to occur on or in the vicinity of the study area and to determine if the proposed affordable housing development would affect these resources.

Based on information and data collected for the analysis and field surveys conducted in 2021, it was determined that the project site provides potential habitat nesting birds and special-status bats. The site has a low probability to provide habitat for special-status plants due to its history of intensive grazing.

1.0 INTRODUCTION

This report presents the results of a biological resource assessment conducted for 2.61 acres located west of Ridley Ave, south of Larry Lane and approximately 1/8 mile north of Guerneville Road in western Santa Rosa, Sonoma County, California. The property is undeveloped grassland with single-family residences to the south and west and partial open space and developed areas to the north (Figure 1).

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2.0 SITE DESCRIPTION

The project site is undeveloped grassland with some trees along the southern, western and northern property lines. Access to the site is gained from Ridley Road via a gravel turn in. Review of aerial photographs indicate the property has been undeveloped for the last 30 years or more and used for grazing or hay.



Looking northwest from entrance way at Ridley Avenue.



Figure 1: Site Location
1801 Ridley Ave
Santa Rosa, CA

3.0 WETLANDS ASSESSMENT

3.1 Corps of Engineers Jurisdictional Criteria Review

Unless exempt from regulation, all proposed discharges of dredged or fill material into waters of the United States require U.S. Army Corps of Engineers (Corps) authorization under Section 404 of the Clean Water Act (33 U.S.C. 1344) and Clean Water Act Section 401 authorization from the Regional Water Quality Control Board (RWQCB). Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including ephemeral and intermittent streams), and farmed wetlands.

The Corps identifies wetlands using a "multi-parameter approach" which requires positive wetland indicators in three distinct environmental categories: hydrology, soils, and vegetation. The *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West*, which was released in early 2007 and revised in 2008 (version 2.0), is utilized when conducting jurisdictional wetland determinations in areas identified within the boundaries of the Arid West (U.S. Army Corps of Engineers, 2008). The Corps of Engineers is determines the extent of its jurisdiction. The project site falls within the Arid West region and so wetlands identified on the site were delineated using that guidance.

On June 22, 2020, the Environmental Protection Agency (EPA) and the Department of the Army's Navigable Waters Protection Rule: Definition of "Waters of the United States" (NWPR) became effective in 49 states and in all US territories. "Waters of the U.S." (WOTUS) are waters such as oceans, rivers, streams, lakes, ponds, and wetlands subject to Corps Regulatory Program jurisdiction under Section 404 of the Clean Water Act (CWA). The San Francisco District will use the NWPR definitions of WOTUS when making permit decisions and providing landowners written determinations of the limits of federal jurisdiction on their property (SPNUSACE, 2020). Under this new rule, jurisdictional features must have a direct surface connection to a navigable water. Certain features previously subject to potential regulation such as farm or roads side ditches, ephemeral streams, and isolated wetlands are excluded under the new rule. It should be noted, the State Water Resources Board in anticipation of this rule has developed its own wetland definition in efforts to maintain jurisdiction over certain wetland features including ephemeral drainages and isolated wetlands.

3.1.1 Potential Wetlands

Section 328.3 of the Federal Code of Regulations defines wetlands as:

"Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence

of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

EPA, 40 CFR 230.3 and CE, 33 CFR 328.3 (b)

The three parameters used to delineate wetlands are the presence of hydrophytic vegetation, wetland hydrology, and hydric soils. According to the Corps Manual, for areas not considered "problem areas" or "atypical situations":

"...[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."

Vegetation

Plant species identified are assigned a wetland status according to the U.S. Fish and Wildlife Service list of plant species that occur in wetlands (Reed 1988). This wetland classification system is based on the expected frequency of occurrence in wetlands as follows:

OBL	Always found in wetlands	>99% frequency
FACW	Usually found in wetlands	67-99%
FAC	Equal in wetland or non-wetlands	34-66%
FACU	Usually found in non-wetlands	1-33%
UPL/NLU	upland/Not listed (upland)	<1%

The Corps Manual and Supplements require that a three-step process be conducted to determine if hydrophytic vegetation is present. The first step is the Dominance Test (Indicator 1); the second is the Prevalence Index (Indicator 2); the third is Morphological Adaptations (Indicator 3). The Dominance Test requires the delineator to apply the "50/20 rule". The dominant species are chosen independently from each stratum of the community. In general, dominant species are determined for each vegetation stratum from a sampling plot of an appropriate size surrounding the sample point. Dominants are defined as the most abundant species that individually or collectively account for more than 50 percent of the total vegetative cover in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total cover. If greater than 50 percent of the dominant species has an OBL, FACW, or FAC status, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails the 50/20 rule and both hydric soils and wetland hydrology are not present, then the sample point does not meet the hydrophytic vegetation criterion, unless the site is a problematic wetland situation. However, if the sample point fails Indicator 1, but hydric soils and wetland hydrology are both present, the delineator must apply the Indicator 2, Prevalence Index. The Indicator 3, Morphological Adaptations, is rarely used in this region.

Hydrology

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation or oxidized root channels, or secondary indicators such as the FAC-neutral test or the presence of a shallow aquitard. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

Soils

The Natural Resource Conservation Service (NRCS) defines a hydric soil as follows:

“A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.”

Federal Register July 13, 1994, U.S. Department of Agriculture, NRCS

Soils formed over long periods under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. The supplement provides a list of the hydric soil indicators that are known to occur in region. Soil samples were collected and described according to the methods provided in the supplements. Soil chroma and values were determined using a Munsell soil color chart (Kollmorgen 1975). If any of the soil samples met one or more of the hydric soil indicators described in the supplement hydric soils were determined to be present.

3.1.2 Waters of the U.S.

“Waters of the United States” (WUS) other than wetlands are also potentially subject to Corps jurisdiction. WUS subject to Corps jurisdiction include ponds, lakes, rivers, streams (including ephemeral and intermittent streams), and all areas below the High Tide Line (HTL) subject to tidal influence. Jurisdiction in non-tidal areas extends to the ordinary high water mark (OHWM) defined as:

“...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.”

Federal Register Vol. 51, No. 219, Part 328.3 (e). November 13, 1986

3.2 North Coast Regional Water Quality Control Board

The Regional Water Quality Control Board regulates waters of the State pursuant to Sections 13260(a)(1) and 13050(e) of the State Water Code, and the Porter Cologne Act. In addition, anyone proposing to conduct a project that requires a federal permit or involves dredge or fill activities that may result in a discharge to U.S. surface waters and/or "Waters of the State" are required to obtain a Clean Water Act (CWA) Section 401 Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill Projects) from the Regional Water Quality Control Board, verifying that the project activities will comply with state water quality standards. The most common federal permit for dredge and fill activities is a CWA Section 404 permit issued by the Corps of Engineers (North Coast Regional Water Quality Control Board, 2007). In general, the RWQCB employs similar wetland delineation techniques for identifying wetland areas potentially subject to its regulation.

Section 401 of the CWA grants each state the right to ensure that the State's interests are protected on any federally permitted activity occurring in or adjacent to Waters of the State. In California, the Regional Water Quality Control Boards (Regional Board) are the agency mandated to ensure protection of the State's waters. Therefore, if a proposed project requires a U.S. Army Corps of Engineers CWA Section 404 permit, falls under other federal jurisdiction, and has the potential to impact Waters of the State, the Regional Water Quality Control Board will regulate the project and associated activities through a Water Quality Certification determination (Section 401) (North Coast Regional Water Quality Control Board, 2007).

However, if a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a fill discharge to "Waters of the State", the Regional Board has the option to regulate the project under its state authority (Porter-Cologne) in the form of Waste Discharge Requirements or Waiver of Waste Discharge Requirements (North Coast Regional Water Quality Control Board, 2007).

In June 2020, the State of California developed its definition of a wetland to address arid conditions in the west. The definition differs from the federal definition in that a wetland can include only wetlands soil and hydrology and not hydrophytic wetland vegetation. However, if the area does have vegetation, it must include wetland vegetation in order to be classified a wetland.

3.3 California Department of Fish and Wildlife

Activities that result in the substantial modification of the bed, bank or channel of a stream or lake may require a Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) pursuant to Sections 1600-1607 of the California Fish and Game Code. On streams, creeks and rivers, the extent of CDFW jurisdiction extends from the top of bank to top of bank or the outer limits of the riparian canopy, whichever is wider.

3.4 Background review

Prior to conducting the on-site wetlands assessment within the study area, various background materials relating to the site were reviewed. These include aeriels from Google earth and the Sebastopol USGS 7.5-minute quadrangle. No potential wetland features were observed on or immediately adjacent to the project site.

In addition, a biological resources report prepared by Golden Bear Bio Studies in 2006 was reviewed. This report identified one small seasonal wetland on the northern property line covering approximately 0.05 acre.

The Soil Survey of Sonoma County was also reviewed to determine if any of the soils on the project site are mapped as hydric soils. The presence of a hydric soil-mapping unit on a project site suggests the presence of potential wetland habitats and therefore is another tool used in wetland identification. The soil units mapped on the project site are listed as:

- Zamora silty clay loam, moist, 0 to 2 percent slopes over the majority of the site
- Wright loam, 0 to 9 percent slopes over the southeast corner of the site

Zamora silty clay loam is listed as having unnamed hydric inclusions in the form of depressions on the County list. Wright loam is listed as having inclusions of Clear Lake soil which is listed as hydric on the County and National lists.

3.5 Wetland Assessment and Results

On June 17, 2021, a jurisdictional wetlands delineation was conducted on the project site utilizing the methods and procedures prescribed in the Arid West supplement. The project site was walked to identify and map potential jurisdictional wetland features within the study area.

The study area is dominated mostly with upland grasses and herbs including oat (*Avena* sp.), star thistle (*Centaurea solstitialis*), rip-gut brome (*Bromus diandrus*), California poppy (*Escholzia californica*), and bachelor buttons (*Centaurea cyanus*). A number of large oaks including valley oak (*Quercus lobata*) and coast live oak (*Quercus agrifolia*) grow along the fence-lines. Coyote bush (*Baccharis pilularis*) is also found on the site. Because a potential seasonal wetland had been identified previously in 2006 (Golden Bear Studies, 2006) along the northern fence-line, this area in particular was evaluated for potential wetland features. Vegetation growing in this area was primarily upland vegetation with coverage of oat, bachelor buttons, and wide leafed plantain (*Plantago lanceolata*). There was no evidence of wetland hydrology in the form of algal mats nor was there strong evidence of soil saturation or mottling as determined by digging one soil pit in that location.

No potential wetlands were identified on the site. A small man-made drainage swale was identified on the western fence-line but this area is dominated with upland vegetation, primarily oat and rip gut brome.



Northern portion of site looking northeast.



Looking to the northern fence-line from the south fence-line.



Western fence-line looking south.



Looking north on Ridley Avenue

4.0 SPECIAL-STATUS SPECIES

4.1 Regulatory framework

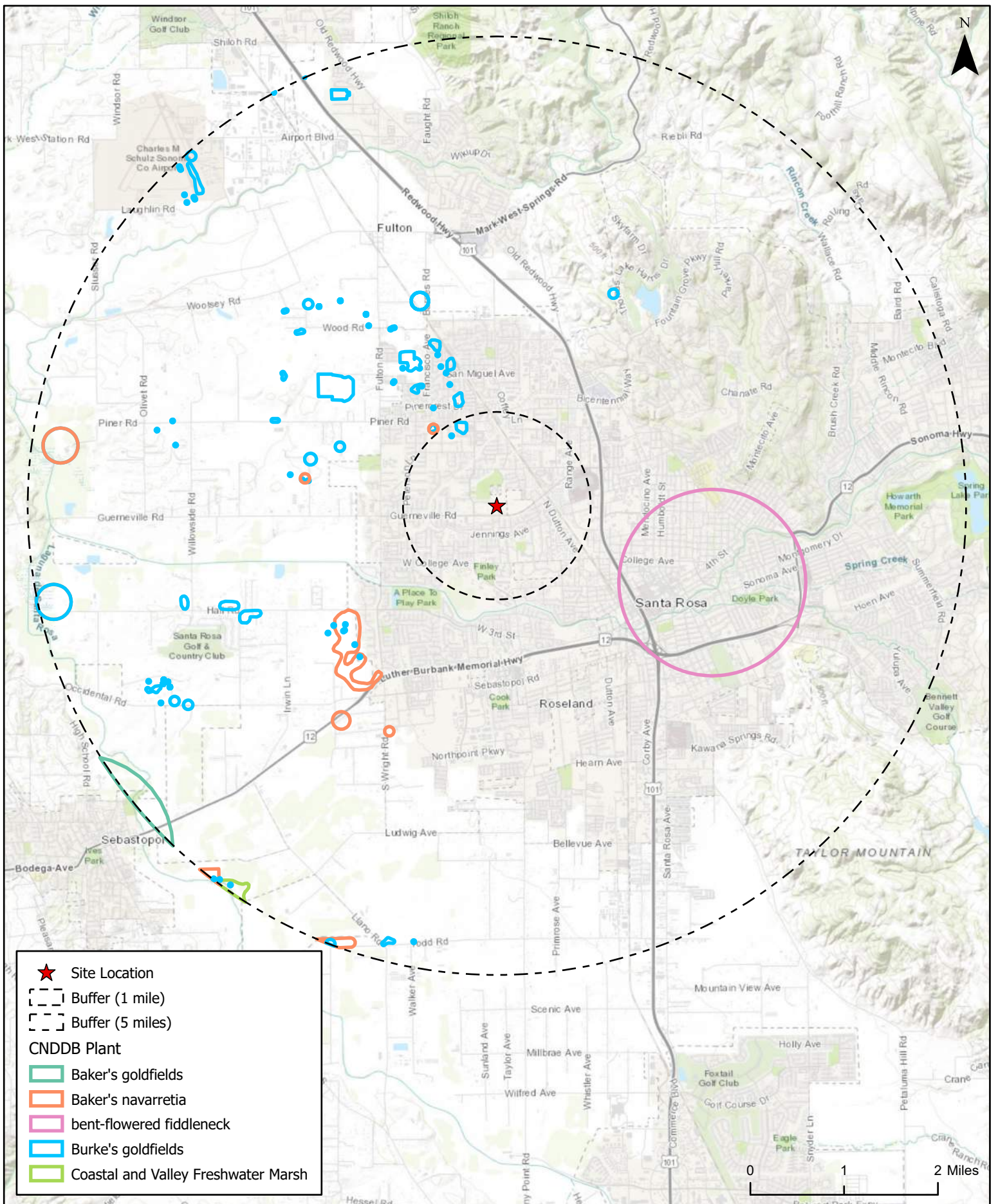
Special-status plants and animals are legally protected under the State and Federal Endangered Species Acts or other regulations, and species that are considered rare by the scientific community. Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFW special status invertebrates are all considered special status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal. Plant species on California Native Plant Society (CRPR) Lists 1 and 2 are also considered special status plant species and must be considered under CEQA.

4.2 Background Review and Field Assessment

4.2.1 Plant Species

Vegetation on the site includes primarily non-native grasses including oat (*Avena* sp.), Italian thistle (*Carduus pycnocephalus*), and rip-gut brome (*Bromus diandrus*). Trees on the fence lines of the site include coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*) and plum (*Prunus* sp.).

Twenty-five different special-status plant species have been recorded within five miles of the project site. Based on habitat conditions resulting from intensive agricultural use in the past, most of the species present on site are non-native, weedy species. In the spring of 2006, Golden Bear conducted protocol-level rare plant surveys during peak blooming periods for special-status species known to occur in the project vicinity. No rare plants were found. Given the lack of seasonal wetland habitats and the disturbed nature of the site, it is unlikely the site supports special-status plants.



★ Site Location
 - - - Buffer (1 mile)
 - - - Buffer (5 miles)
CNDDDB Plant
 ■ Baker's goldfields
 ■ Baker's navarretia
 ■ bent-flowered fiddleneck
 ■ Burke's goldfields
 ■ Coastal and Valley Freshwater Marsh

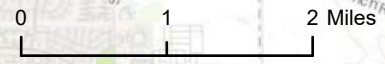
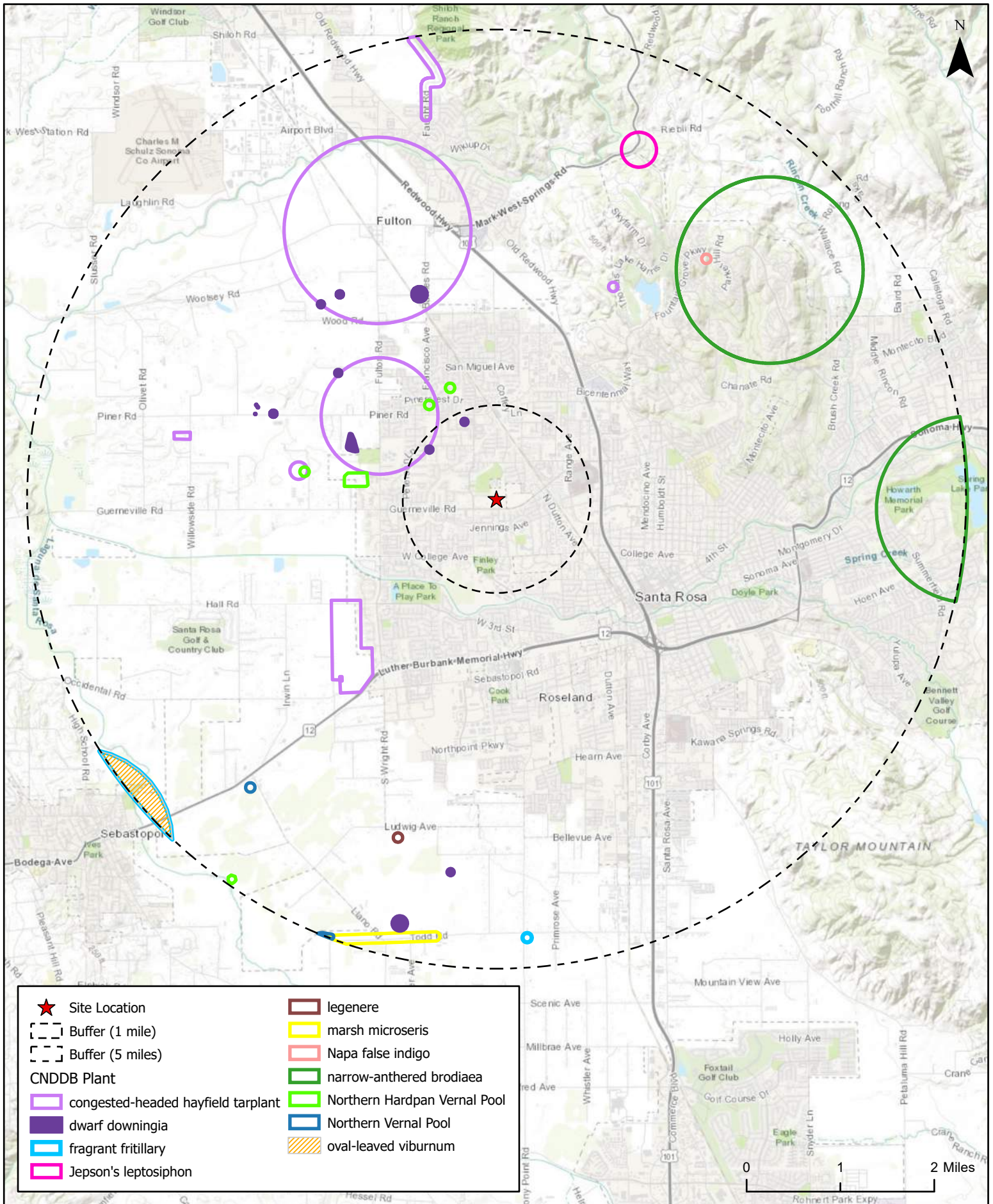
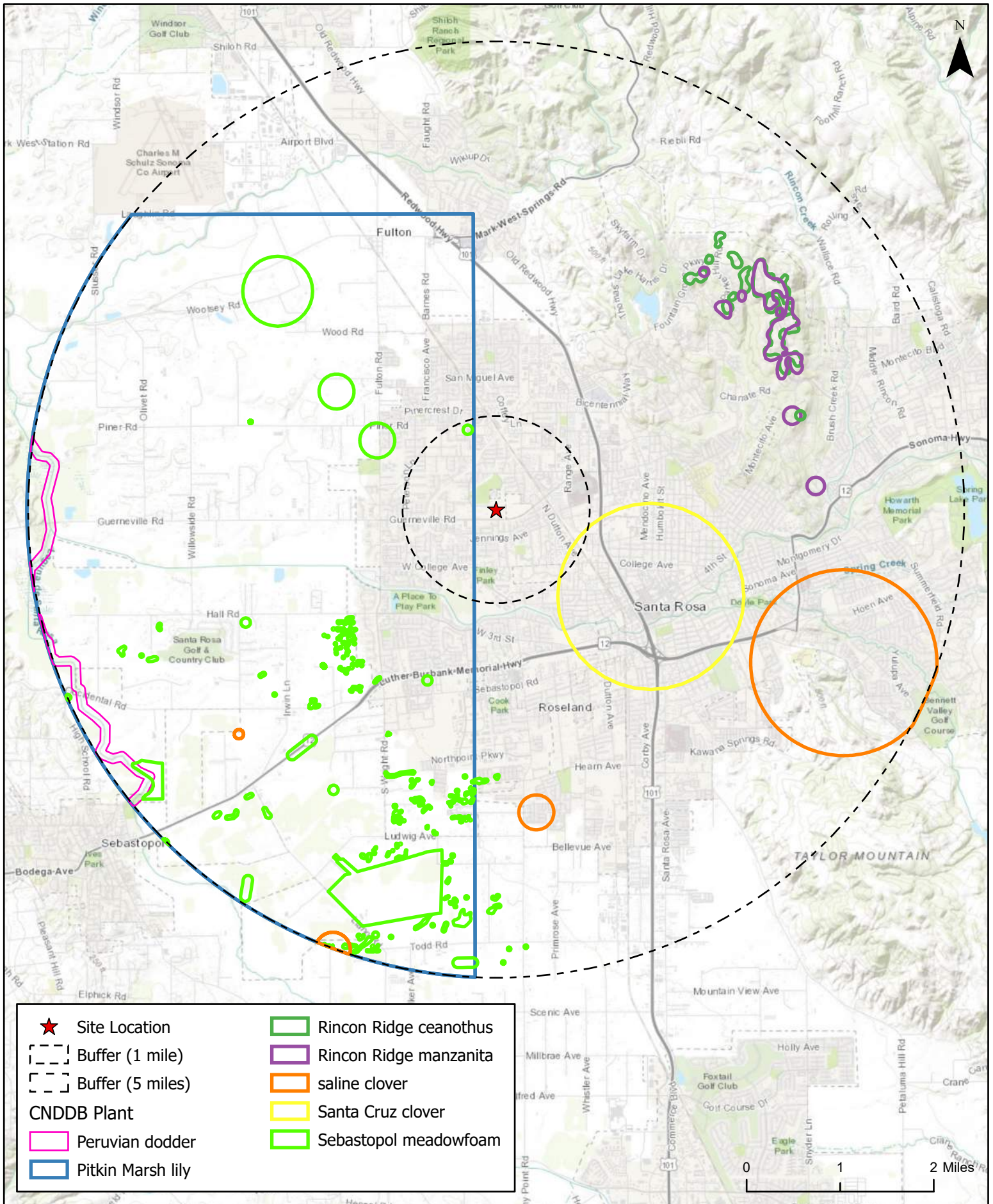


Figure 2a: CNDDDB Plant
 1801 Ridley Ave
 Santa Rosa, CA



- ★ Site Location
- Buffer (1 mile)
- Buffer (5 miles)
- CNDDDB Plant
- congested-headed hayfield tarplant
- dwarf downingia
- fragrant fritillary
- Jepson's leptosiphon
- legene
- marsh microseris
- Napa false indigo
- narrow-anthered brodiaea
- Northern Hardpan Vernal Pool
- Northern Vernal Pool
- oval-leaved viburnum

Figure 2b: CNDDDB Plant
1801 Ridley Ave
Santa Rosa, CA



★ Site Location	▭ Rincon Ridge ceanothus
⊘ Buffer (1 mile)	▭ Rincon Ridge manzanita
⊘ Buffer (5 miles)	▭ saline clover
CNDDDB Plant	▭ Santa Cruz clover
▭ Peruvian dodder	▭ Sebastopol meadowfoam
▭ Pitkin Marsh lily	

Figure 2c: CNDDDB Plant
1801 Ridley Ave
Santa Rosa, CA

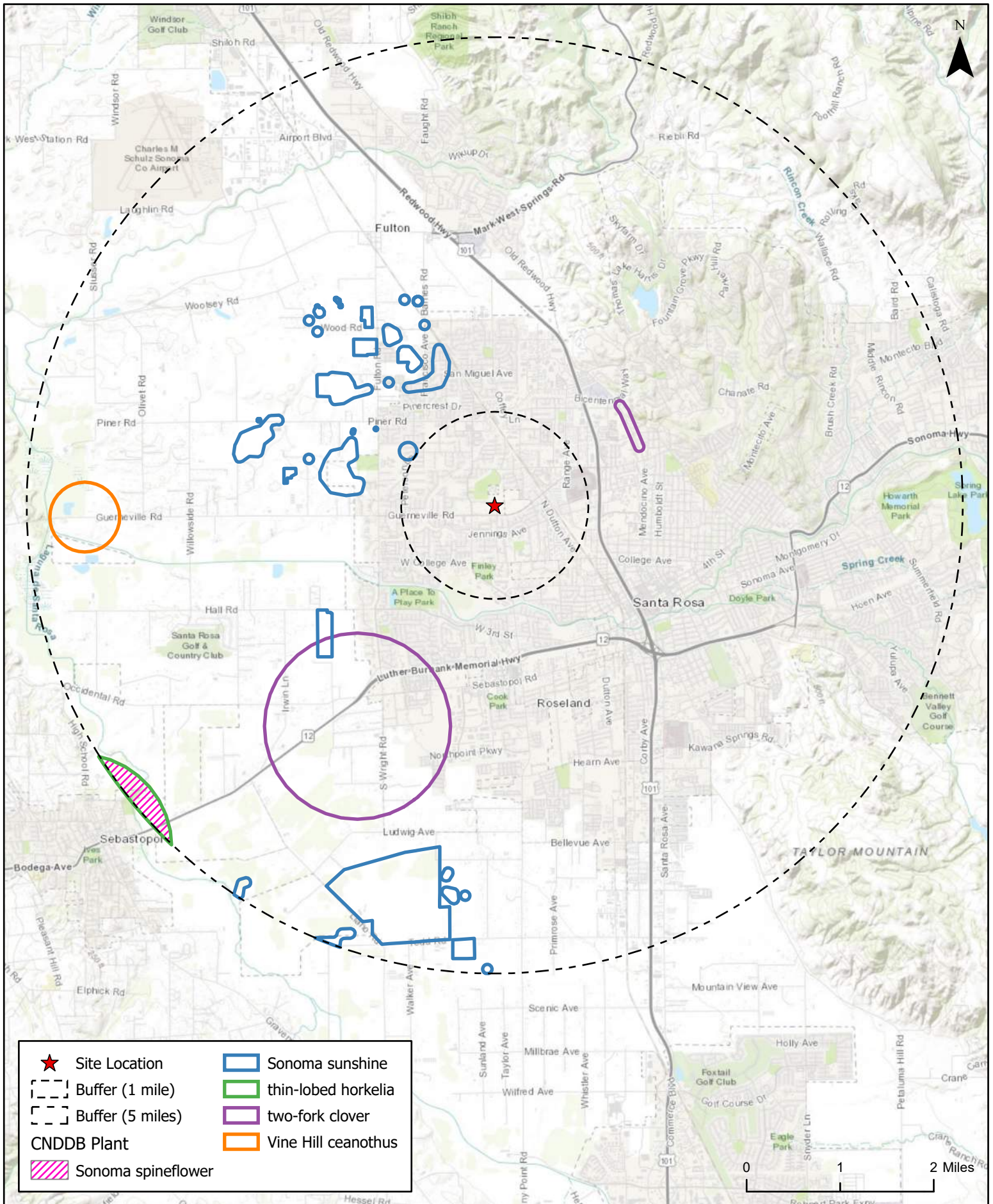


Figure 2d: CNDDDB Plant
 1801 Ridley Ave
 Santa Rosa, CA

Table 1. Special-status plant species with potential to occur in the vicinity of 1801 Ridley Avenue, Santa Rosa, Sonoma County

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
Sonoma alopecurus (<i>Alopecurus aequalis</i> var. <i>sonomensis</i>)	FE, CRPR 1B.1	Wet places; freshwater marshes and swamps, riparian scrub, streamsides in valley and foothill grassland.	May-July	Suitable substrate probably does not occur in survey area. Outside known range. No Potential
Napa false indigo (<i>Amorpha californica</i> var. <i>napensis</i>)	CRPR 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, North Coast coniferous forest.	April-July	No suitable habitat in survey area. Low Potential
Bent-flowered fiddleneck (<i>Amsinckia lunaris</i>)	CRPR 1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland, openings in broadleaved upland forest.	March-June	Marginally suitable habitat may occur in survey area. Low Potential
Baker's manzanita (<i>Arctostaphylos bakeri</i>)	CRPR 1B.1	Broadleafed upland forest, chaparral. Serpentine soils.	February-April	No manzanita observed on site. No Potential
Vine Hill manzanita (<i>Arctostaphylos densiflora</i>)	SE, CRPR 1B.1	Acid marine sandy or sandy clay soil; maritime chaparral.	February-April	No manzanita observed on site. No Potential
The cedars manzanita (<i>Arctostaphylos bakeri</i> ssp. <i>sublaevis</i>)	CRPR 1B.2	Chaparral, closed-cone coniferous forest. Typically, in canyons and on slopes.		No manzanita observed on site. No Potential
Rincon manzanita (<i>Arctostaphylos stanfordiana</i> ssp. <i>decumbens</i>)	CRPR 1B.1	Red rhyolitic substrate; chaparral, cismontane woodland.	February-April (May)	No manzanita observed on site. No Potential

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
Mt. Tamalpais manzanita (<i>Arctostaphylos montana</i> ssp. <i>montana</i>)	CRPR 1B.3	Rocky areas, serpentine substrate; chaparral, valley and foothill grassland.	February-April	No manzanita observed on site. No Potential
Marin manzanita (<i>Arctostaphylos virgata</i>)	CRPR 1B.2	Sandstone or granitic substrate; broadleafed upland forest, closed-cone coniferous forest, chaparral, North Coast coniferous forest.	December-March	No manzanita observed on site. No Potential
Clara Hunt's milk-vetch (<i>Astragalus claranus</i>)	FE, ST, CRPR 1B.1	Rocky open, generally exposed places, clay soil, serpentine or volcanic substrate; cismontane woodland, valley and foothill grassland, openings in chaparral.	March-May	No suitable habitat on site. No Potential
Big-scale balsamroot (<i>Balsamorhiza macrolepis</i>)	CRPR 1B.2	Chaparral, cismontane woodland, valley and foothill grassland, sometimes serpentine substrate.	March-July	No suitable habitat on site. No Potential
Sonoma sunshine (<i>Blennosperma bakeri</i>)	FE, SE, CRPR 1B.1	Vernally moist to inundated places; vernal pools, valley and foothill grassland.	February-April	Marginally suitable habitat may occur in survey area. Low Potential
Narrow-anthered brodiaea (<i>Brodiaea leptandra</i> [<i>B. californica</i> var. <i>leptandra</i>])	CRPR 1B,2	Gravelly soil (?), volcanic substrate (?); broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland.	May-July	No suitable habitat on site. No Potential
Swamp harebell (<i>Campanula californica</i>)	CRPR 1B.2	Wet, boggy places; bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marshes, North Coast coniferous forest.	June-October	No suitable habitat on site. No Potential

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
Mt. Saint Helena morning glory (<i>Calystegia collina</i>)	CRPR 4.2	Chaparral, lower montane coniferous forest, valley and foothill grassland, serpentinite. Associated species: <i>Ceanothus</i> spp., <i>Pinus ponderosa</i> , and <i>Arctostaphylos stanfordiana</i> .	April-June	No suitable habitat on site. No Potential
Vine Hill clarkia (<i>Clarkia imbricata</i>)	FE, SE, CRPR 1B.1	Acidic sandy loam soil; chaparral, valley and foothill grassland.	June-August	Lack of suitable substrate. Low Potential
Calistoga ceanothus (<i>Ceanothus divergens</i>)	CRPR 1B.2	Rocky places, serpentine or volcanic substrate; chaparral, cismontane woodland.	February-April	No ceanothus observed on site. No Potential
Vine Hill ceanothus (<i>Ceanothus foliosus</i> var. <i>vineatus</i>)	CRPR 1B.1	Sandy (and rocky?) acidic soil; chaparral, cismontane woodland (?), broadleafed evergreen forest (?).	March-June	No ceanothus observed on site. No Potential
Thurber's reed grass (<i>Calamagrostis crassiglumis</i> (= <i>C. stricta</i> ssp. <i>inexpansa</i> , in part))	CRPR 2B.1	Moist to wet places; coastal scrub, freshwater marsh.	May-July	No suitable habitat on site. No Potential
The Cedar's fairy-lantern (<i>Calochortus raichei</i>)	CRPR 1B.2	Closed-cone coniferous forest, chaparral. Usually on shaded slopes.	March-August	No suitable habitat on site. No Potential
Rincon Ridge ceanothus (<i>Ceanothus confusus</i>)	CRPR 1B.1	Dry sites, volcanic or serpentine substrate; closed-cone coniferous forest, chaparral, cismontane woodland.	February-June	No ceanothus observed on site. No Potential
Pennell's bird's-beak (<i>Cordylanthus tenuis</i> ssp. <i>capillaris</i>)	FE, SR, CRPR 1B.	Open or disturbed areas, serpentine substrate; chaparral, closed-cone coniferous forest.	June-September	No suitable habitat occurs on site. No Potential

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
Holly-leaved ceanothus (<i>Ceanothus purpureus</i>)	CRPR 1B.2	Rocky soil, volcanic substrate; chaparral, cismontane woodland.	February-June	No ceanothus observed on site. No Potential
Sonoma ceanothus (<i>Ceanothus sonomensis</i>)	CRPR 1B.2	Sandy soil, serpentine or volcanic substrate; chaparral.	February-April	No ceanothus observed on site. No Potential
Pappose tarplant (<i>Centromadia [Hemizonia] parryi</i> ssp. <i>parryi</i>)	CRPR 1B.2	Vernally moist sites, often alkaline soil; chaparral, coastal prairie, meadows, coastal salt marshes, valley and foothill grassland.	May-November	Marginally suitable habitat may occur in survey area. Low Potential
Sonoma spineflower (<i>Chorizanthe valida</i>)	FE, SE, CRPR 1B.1	Sandy soil, coastal prairie.	June-August	Suitable habitat and soil type do not occur in survey area. No Potential
Baker's larkspur (<i>Delphinium bakeri</i>)	FE, SE, CRPR 1B.1	Decomposed shale substrate; broadleafed upland forest, coastal scrub, valley and foothill grassland, possibly sometimes disturbed areas (e.g. fence-lines).	March-May	Suitable habitat and soil type do not occur in survey area. Low Potential
Golden larkspur (<i>Delphinium luteum</i>)	FE, SR, CRPR 1B.1	± moist places, rocky soil, generally north-facing slopes; chaparral, coastal prairie, coastal scrub.	March-May	Suitable habitat not present. Known to only one population in Bodega Bay. No Potential
Peruvian dodder (<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>)	CRPR 2B.2	Parasitic on herbs including <i>Alternanthera</i> spp., <i>Dalea</i> spp., loosestrife (<i>Lythrum</i> spp.), knotweed (<i>Polygonum</i> spp.), and cocklebur/clotbur (<i>Xanthium</i> spp.); freshwater marsh	July-October	No suitable habitat on site. Not observed during June 2021 field reconnaissance. No Potential

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
Dwarf downingia (<i>Downingia pusilla</i>)	CRPR 2B.2	Vernal pools, vernal moist places in valley and foothill grassland, sometimes ditches.	March-May	Marginally suitable habitat may occur in survey area. Low Potential
Greene's narrow-leaved daisy (<i>Erigeron greenei</i> [= <i>E. angustatus</i>])	1B.2	Serpentine (or possibly volcanic) soil, chaparral.	May-September	No suitable habitat occurs in survey area. No Potential
Serpentine daisy (<i>Erigeron serpentinus</i>)	CRPR 1B.3	Serpentine substrate, generally on seeps; chaparral.	May-August	No suitable habitat occurs in survey area. No Potential
Fragrant fritillary (<i>Fritillaria liliacea</i>)	CRPR 1B.2	Generally heavy clay soil, often serpentine substrate; cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland.	February-April	No suitable habitat or substrate exists on site. No Potential
Woolly-headed gilia (<i>Gilia capitata</i> ssp. <i>tomentosa</i>)	CRPR 1B.1	Rocky places, rock outcrops, serpentine substrate; coastal bluff scrub, valley and foothill grassland.	May-July	Suitable substrate does not occur in survey area. Low Potential
Boggs Lake hedge-hyssop (<i>Gratiola heterosepala</i>)	SE, CRPR 1B.2	Vernally inundated or wet places, clay soil; usually vernal pools, occasionally lake margins.	April-August (September)	No suitable habitat occurs in survey area. No Potential
Small groundcone (<i>Kopsiopsis hookeri</i>)	CRPR 2B.3	North Coast coniferous forest. Open woods, shrubby places.	May-July	No suitable habitat occurs in survey area. No Potential
Congested-headed hayfield tarplant (<i>Hemizonia congesta</i> ssp. <i>congesta</i>)	CRPR 1B.2	Grassy places, often disturbed areas, fallow fields, other ruderal areas; valley and foothill grassland, coastal scrub.	April-November	Suitable habitat occurs in survey area. Medium Potential

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
Thin-lobed horkelia (<i>Horkelia tenuiloba</i>)	CRPR 1B.2	Moist places, open areas, sandy soil; broadleafed upland forest, chaparral, coastal scrub, valley and foothill grassland.	May-July (August)	No suitable habitat or substrate exists on site. No Potential
Burke's goldfields (<i>Lasthenia burkei</i>)	FE, SE, CRPR 1B.1	Wet or moist (at least vernal) places; generally vernal pools and swales, sometimes meadows.	April-June	Marginally suitable habitat may occur on site. Low Potential
Baker's goldfields (<i>Lasthenia californica</i> ssp. <i>bakeri</i>)	CRPR 1B.2	Open places; closed-cone coniferous forest, coastal scrub, meadows, marshes and swamps.	April-October	No suitable habitat occurs in survey area. No Potential
Contra Costa goldfields (<i>Lasthenia conjugens</i>)	FE, CRPR 1B.1	Vernally moist, open, low-lying places, sometimes alkaline soil; vernal pools, wet meadows, valley and foothill grassland, cismontane woodland, alkaline playas.	March-June	Marginally suitable habitat may occur on site. Low Potential
Legenere (<i>Legenere limosa</i>)	CRPR 1B.1	Vernal pools and swales.	April-June	Suitable habitat not present. No Potential
Jepson's leptosiphon (<i>Leptosiphon</i> [<i>Linanthus</i>] <i>jepsonii</i>)	CRPR 1B.2	Usually volcanic soil (sometimes periphery of serpentine), chaparral, cismontane woodland.	March-May	No suitable habitat occurs in survey area. No Potential
Pitkin marsh lily (<i>Lilium pardalinum</i> ssp. <i>pitkinense</i>)	FE, SE, CRPR 1B.1	Saturated places, sandy soil; cismontane woodland, meadows and seeps, freshwater marshes.	June-July	No suitable habitat occurs in survey area. No Potential
Sebastopol meadowfoam (<i>Limnanthes vinculans</i>)	FE, SE, CRPR 1B.1	Seasonally wet places, poorly drained, clay or sandy soil; meadows, valley and foothill grassland, vernal pools.	April-May	No suitable habitat occurs in survey area. No Potential

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
Cobb Mountain lupine (<i>Lupinus sericatus</i>)	CRPR 1B.2	Open wooded areas, gravelly soil; broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest.	March-June	No suitable habitat occurs in survey area. No Potential
Colusa layia (<i>Layia septentrionalis</i>)	CRPR 1B.2	Sandy or serpentine soil; chaparral, cismontane woodland, valley and foothill grassland.	April-June	No suitable substrate on site. No Potential
Marsh microseris (<i>Microseris paludosa</i>)	CRPR 1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland.	April-June (July)	Suitable habitat does not occur on project site. No Potential
Baker's navarretia (<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>)	CRPR 1B.1	Seasonally moist places, cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest.	April-July	No suitable habitat occurs in survey area. No Potential
North Coast semaphore grass (<i>Pleuropogon hooverianus</i>)	ST, CRPR 1B.1	Moist to wet, open or partly shaded places; broadleafed upland forest, meadows and seeps, North Coast coniferous forest, freshwater marsh.	March-June	No suitable habitat occurs in survey area. No Potential
Point Reyes checkerbloom (<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>)	CRPR 1B.2	Freshwater marsh.	April-September	No suitable habitat occurs in survey area. No Potential
Two-fork clover (<i>Trifolium amoenum</i>)	FE, CRPR 1B.1	Moist open sites, heavy soil, sometimes serpentine substrate, sometimes roadsides or eroded areas; coastal bluff scrub, valley and foothill grassland.	April-June	No suitable habitat or substrate exists on site. No Potential

Plant Species	Status ¹	Habitat ²	Flowering Period	Potential for Occurrence on Project Site
Saline clover (<i>Trifolium hydrophilum</i>)	CRPR 1B.2	Moist or seasonally moist sites, alkaline or saline soil; marshes and swamps (including coastal salt marshes?), valley and foothill grassland, vernal pools.	April-June	No suitable habitat or substrate exists on site. No Potential
Oval-leaved viburnum (<i>Viburnum ellipticum</i>)	CRPR 2B.3	Often north-facing slopes; chaparral, cismontane woodland, lower montane coniferous forest.	May-June (August)	No suitable habitat occurs in survey area. No Potential

¹Plant listing status:

Federal (USFWS 2017a): FE – endangered; FT – threatened

State of California (CDFW 2017): SE– endangered; ST – threatened; SR – rare

California Rare Plant Rank (CRPR) (CNPS 2016): CRPR 1A: Presumed extinct in California. CRPR 1B: Rare, Threatened, or Endangered in California and elsewhere. CRPR 2B: Rare, Threatened, or Endangered in California, more common elsewhere. CRPR 3: Plants about which more information is needed.

CRPR Threat Code extensions: .1: Seriously endangered in California. .2: Fairly endangered in California. .3 Not very endangered in California

4.2.2 Animal Species

The California Department of Fish and Wildlife's Natural Diversity Database (CNDDDB, 2021) was reviewed (Sebastopol and surrounding quadrangles) to identify special-status species potentially occurring on or in the vicinity of the project site. Prior to the fieldwork, a list of special-status animal species with the potential to occur in the study area on the site was prepared (Table 2).

On June 17, 2021, Lucy Macmillan conducted a reconnaissance-level habitat assessment on the project site. The purpose of the assessment was to characterize the nature and extent of habitat types within and adjacent to the study area and to determine if these habitats have the potential to support special-status species. The project site was walked and field observations noted. It was determined that the site provides potential habitat for the nesting birds and roosting bats.

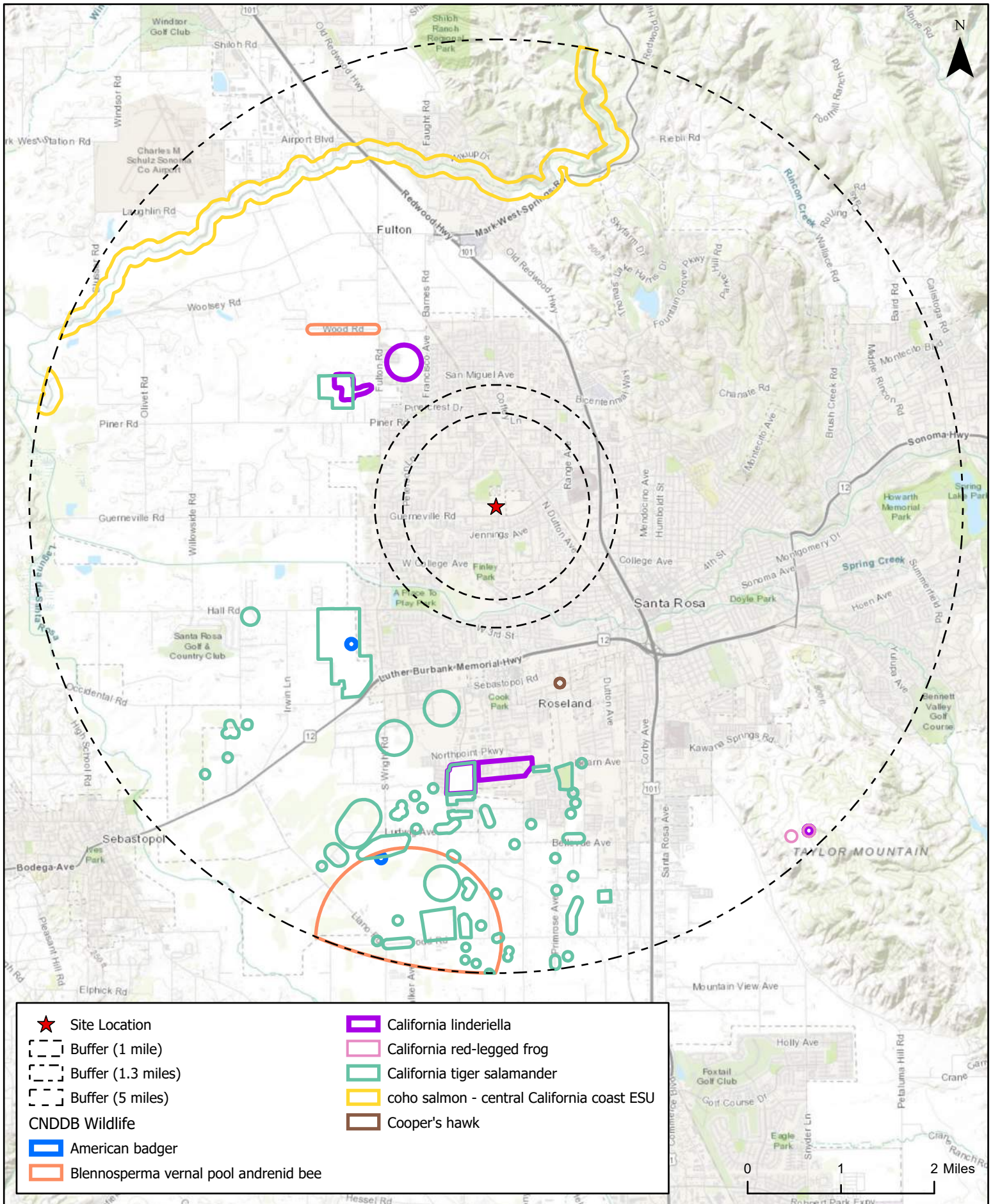
Fourteen special-status animals are recorded within 5 miles of the project site (Figure 3). The remaining species listed on Figure 3 are unlikely to occur due to lack of suitable habitat such as creeks or long ponding wetlands.

Nesting Birds

The non-native grasses and various trees on site including native oaks provide potential habitat for a variety of nesting birds mostly passerines. Birds and raptors are protected under the federal Migratory Bird Treaty Act (50 CFR 10.13). Their nest, eggs, and young are also protected under California Fish and Wildlife Code (§3503, §3503.5, and §3800). In addition, raptors such as the white-tailed kite (*Elanus leucurus*) are "fully protected" under Fish and Wildlife Code (§3511). Fully protected raptors cannot be taken or possessed (that is, kept in captivity) at any time. Nesting season for birds in California generally occurs between February 1st and August 15th.

Special-status Bats

The trees on the project site provide potential habitat for various special-status bat species known to occur in the project region. These species include but are not limited to Pallid bat (*Antrozous pallidus*). The pallid bat is a California Species of Special Concern and may roost in mature trees, snags, crevices, cavities, and foliage within this habitat. Maternity roosting for bats is April through September.



★ Site Location	California linderiella
--- Buffer (1 mile)	California red-legged frog
--- Buffer (1.3 miles)	California tiger salamander
--- Buffer (5 miles)	coho salmon - central California coast ESU
CNDDB Wildlife	Cooper's hawk
■ American badger	
■ Blennosperma vernal pool andrenid bee	



Figure 3a: CNDDB Wildlife
 1801 Ridley Ave
 Santa Rosa, CA

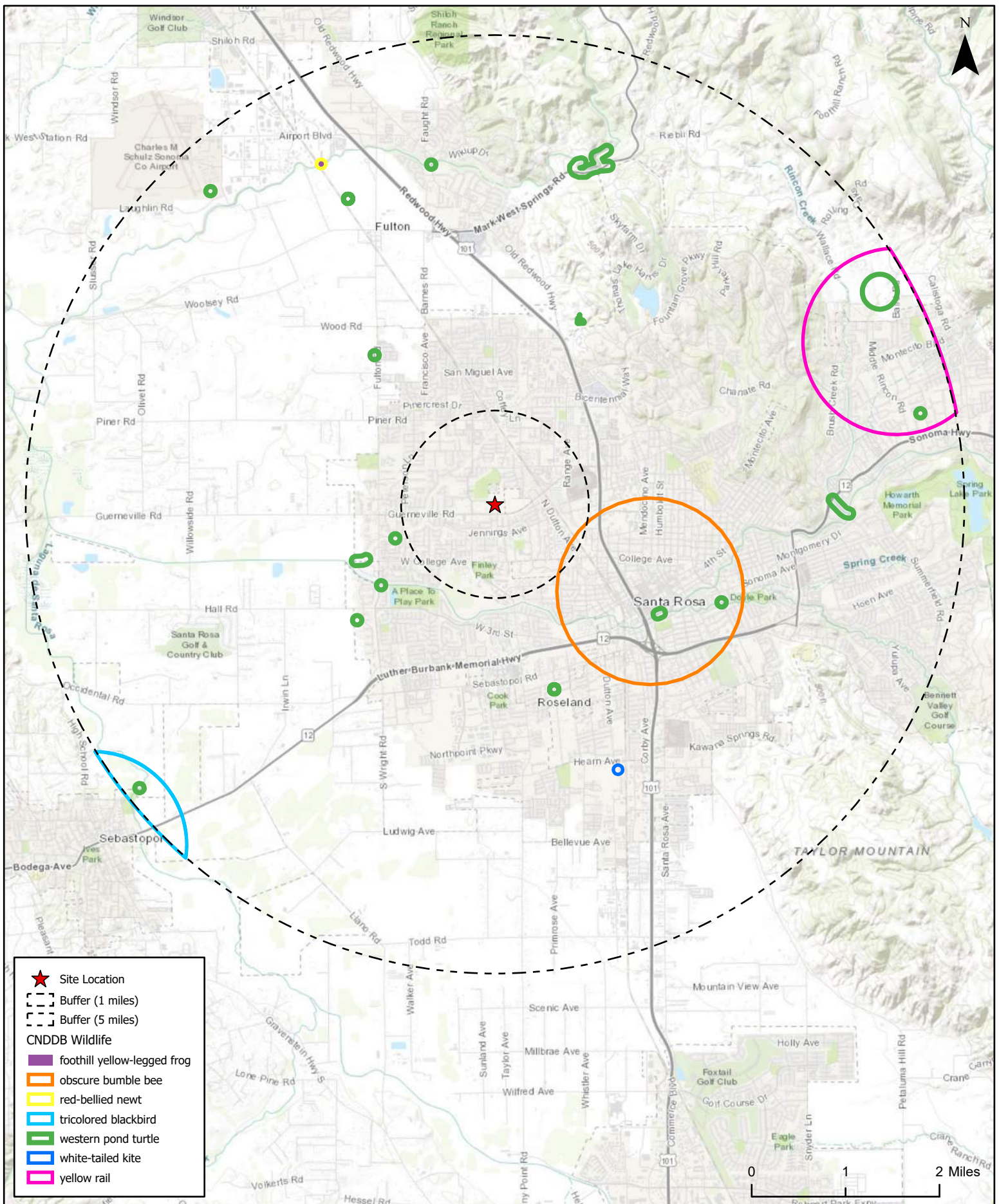


Figure 3b: CNDDB Wildlife
 1801 Ridley Ave
 Santa Rosa, CA

Table 2. Special-Status Animal Species Potentially Occurring on or In the Vicinity of 1801 Ridley Avenue, Santa Rosa, CA

Animal*	Status	Habitat	Potential for Occurrence on or In Vicinity of Site
Amphibians and Reptiles			
California tiger salamander <i>Ambystoma californiense</i>	FE[1], FT	Needs underground refuges especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	No recorded occurrences with 1.3 miles of the project site. No suitable breeding habitat on or adjacent to project site. Site occurs in a heavily developed area within the urban growth boundaries of the City.
California giant salamander <i>Dicamptodon ensatus</i>	CSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	No suitable habitat on or immediately adjacent to project site.
Western pond turtle <i>Actinemys marmorata</i>	FC, CSC	Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites, nest sites may be found up to 0.5 km from water.	No suitable habitat on or immediately adjacent to project site.
California red-legged frog <i>Rana aurora draytonii</i>	FT, CSC	Lowlands and foothills in or near permanent sources of deepwater with dense, shrubby or emergent riparian vegetation.	No suitable habitat on or immediately adjacent to project site. No know occurrences recorded within 5 miles of site.
Red-bellied newt <i>Taricha rivularis</i>	CSC	Lives in terrestrial habitats in redwood forests along the coast and will migrate several hundred meters in a season to breed in fast-moving streams with rocky bottoms. After breeding, adults leave streams but usually remain in the same drainages.	No suitable habitat on or immediately adjacent to project site.
Foothill yellow-legged frog <i>Rana boylei</i>	CSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	No suitable habitat on or immediately adjacent to project site.

Animal*	Status	Habitat	Potential for Occurrence on or in Vicinity of Site
Fish			
Steelhead-Central California Coast ESU <i>Oncorhynchus mykiss irideus</i>	FT	Anadromous. Adults and fry recorded in upstream portions of creeks north of San Pablo Bay. Juveniles may rear in lower reaches of larger river systems and Bay before moving out to sea.	No suitable habitat on or immediately adjacent to project site.
Coho salmon - central CA coast ESU <i>Oncorhynchus kisutch</i>	FE, SE, NMFS	Federal listing includes populations between Punta Gorda and San Lorenzo River. State listing includes populations south of San Francisco Bay only. Occurs inland and in coastal marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	No suitable habitat on or immediately adjacent to project site.
Russian River tule perch <i>Hysteroecarpus traski pomo</i>	CSC	Occurs in low elevation streams of the Russian River system. Requires clear, flowing water with abundant cover and deep (> 1 m) pools.	No suitable habitat on or immediately adjacent to project site.
Birds**			
Tricolored blackbird <i>Agelaius tricolor</i>	CSC	Colonial nester. Most numerous in the Central Valley & Vicinity. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	No suitable habitat in survey area.
Burrowing owl <i>Athene cunicularia</i>	CSC	Open, dry annual or perennial grasslands; deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent on burrowing animals, most notably the California ground squirrel.	No suitable habitat on site. No burrows observed during June 2021 reconnaissance.

Animal*	Status	Habitat	Potential for Occurrence on or in Vicinity of Site
black swift <i>Cypseloides niger</i>	CSC, BCC	Summer resident with a fragmented breeding distribution; most occupied areas in California either montane or coastal. Breeds in small colonies on cliffs behind or adjacent to waterfalls, in deep canyons, and sea-bluffs above surf. Forages aerially over wide areas.	No suitable habitat on or immediately adjacent to project site.
Mammals			
Pallid bat <i>Antrozous pallidus</i>	CSC, WBWG High	Deserts, grasslands, woodlands and forests. Most common in open dry habitats with rocky areas for roosting. Very sensitive to disturbance of roosting sites.	Potential for occurrence in trees along fence-lines.
western red bat <i>Lasiurus blossevillii</i>	CSC, WBWG High	Highly migratory and typically solitary, roosting primarily in the foliage of trees or shrubs. Roosts are usually in broad-leaved trees including cottonwoods, sycamores, alders, and maples. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas.	Potential for occurrence in trees along fence-lines.
fringed myotis <i>Myotis thysanodes</i>	WBWG High	Associated with a wide variety of habitats including dry woodlands, desert scrub, mesic coniferous forest, grassland, and sage-grass steppes. Buildings, mines and large trees and snags are important day and night roosts.	Potential for occurrence in trees along fence-lines.
hoary bat <i>Lasiurus cinereus</i>	WBWG Medium	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Potential for occurrence in trees along fence-lines.

Animal*	Status	Habitat	Potential for Occurrence on or in Vicinity of Site
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	SCT, CSC	Throughout California in a variety of habitats. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Potential low.
American badger <i>Taxidea taxus</i>	CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	No badger burrows observed during June 2021 site evaluation. Potential low.
Sonoma tree vole <i>Arborimus pomo</i>	CSC	North coast fog belt from Oregon border to Sonoma County. Occurs in Douglas fir, redwood and montane hardwood-conifer forests. Feeds almost exclusively on Douglas fir needles. Will occasionally take needles of grand fir, hemlock or spruce.	No suitable habitat on or immediately adjacent to project site.
Invertebrates			
Navarro roach <i>Lavinia symmetricus navarroensis</i>	SCS	Habitat generalists. Found in warm intermittent streams as well as cold, well-aerated streams.	No suitable habitat on or immediately adjacent to project site due to lack of intermittent streams on project site.
California freshwater shrimp <i>Syncaris pacifica</i>	FE, SE	Endemic to Marin, Napa, and Sonoma counties. Found in low gradient streams where riparian cover is moderate to heavy. Recorded occurrences in Sonoma Creek.	No suitable habitat on or immediately adjacent to project site.

*Note: FSC = U.S. Fish and Wildlife Service Species of Concern; FE = federally listed as endangered; FT = federally listed as threatened; SE = state listed as endangered; ST = state listed as threatened; SCT = State candidate threatened. SFP = State fully protected (may not be taken or possessed without a permit from the Fish and Wildlife Commission and/or CDFW). CSC = California species of special concern; CDFS = considered sensitive by the California Department of Forestry.

**All migratory birds are protected by the Migratory Bird Treaty Act (50 CFR 10), which makes it unlawful to take, possess, buy, sell, purchase or barter any migratory bird, including feathers or other parts, nests, eggs or products, except as allowed by implementing regulations (50 CFR 21). In addition, Section 2080 of the California Fish and Wildlife Code prohibits the killing of a listed species, and Sections 3503, 3503.5, and 3800 of the Fish and Wildlife Code prohibit the take, possession, or destruction of birds, their nests, or eggs.

Based on review of the CNDDDB June 2021.

5.0 Conclusions and Recommended Mitigation Measures

5.1 Wetlands

No potential wetlands were identified on the site therefore no mitigation is recommended.

5.2 Special-status Plants

The site is unlikely to provide habitat for special-status plants based on the intensive historical agricultural use on the site. Therefore, rare plant surveys are not recommended.

5.3 Nesting Birds

The trees on and immediately adjacent to the site provide potential habitat for nesting birds. Therefore, if work will occur between February 1st and August 15st a qualified biologist should conduct pre-construction surveys of all potential nesting habitats within approximately 100 feet of project activities.

- If initial ground disturbance or vegetation removal occurs during the breeding season (February 1 through August 15), a qualified biologist will conduct a breeding bird survey no more than 7 days prior to ground disturbance to determine if any birds are nesting in trees adjacent to the Study area.
- If active nests are found close enough to the Study area to affect breeding success, the biologist will establish an appropriate exclusion zone around the nest. This exclusion zone may be modified depending upon the species, nest location, and existing visual buffers. Once all young have become independent of the nest, vegetation removal and grading may take place in the former exclusion zone.
- If initial ground disturbance is delayed or there is a break in Project activities of greater than 7 days within the bird-nesting season, then a follow-up nesting bird survey should be performed to ensure no nests have been established in the interim.

5.4 Special-status Bats

Special-status bats, including but not limited to the pallid bat, may roost in trees present on the project site. Removal of suitable tree roosts has the potential to impact this species as well as other common bat species, if present. Likewise, noise, vibration, and dust from activities has the potential to impact maternity roosting bats in nearby habitats, if present. To minimize impacts to this species, the following measures are recommended:

- To the extent practical, tree removal and construction-related activities should be conducted between September 15 and April 15 to avoid impacts to pregnant females and active maternity roosts (colonial or solitary).
- To avoid impacts to solitary roosters, trees should be removed in pieces, rather than felling the entire tree. Felled tree pieces should be shaken gently to rouse any bats and then left overnight prior to removal from the site or on-site chipping to allow any bats to exit the roost.
- If roosts cannot be removed during the non-maternity season, a pre-construction roost assessment and emergence survey should be conducted in suitable habitat on or adjacent to the project site. If a maternity roost is located, that roost must remain undisturbed until September 15 or until a qualified biologist has determined the roost is no longer active.
- If an active maternity roost is found, compensatory mitigation shall be provided through consultation with CDFW and may include construction and installation of suitable replacement habitat on-site.

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