SOL ECOLOGY

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October 7, 2021

Kurt Simrock
Arcanum Architecture
329 Bryant St., Suite 3C
San Francisco, CA 94107

Re: Coastal Biological Resources Review for 2450 Purisima Creek Road (APN 066-230-050), Half Moon Bay, San Mateo County, California

Dear Kurt,

The purpose of this letter report is to provide the results of an assessment of the natural community, sensitive habitats, and special status species resources potentially present at APN 066-230-050 located at 2450 Purisima Creek Road, unincorporated Half Moon Bay, San Mateo County, California (Project Site; Attachment A, Figure 1). This assessment is required for a new coastal development permit by the San Mateo County Planning Department. The proposed project includes the re-development of a single-family residence with new driveway entrance and barn on an approximately 20-acre parcel. One stable present in the riparian setback will be removed.

The purpose of the assessment is to complete a review of potential impacts to sensitive habitats from development of the proposed Project Site, under the guidelines of the San Mateo County Local Coastal Plan (LCP). This report describes the results of the site and impact assessment and provides recommendations for avoidance and minimization measures for any sensitive habitats protected by local, state, and federal laws and regulations present on or in the immediate vicinity of the Project Site.

Methods

On February 12, 2019, and on April 27, 2021, Sol Ecology biologists conducted a biological resources study at the Project Site. Prior to the site visits, the Soil Survey of San Mateo County, California [U.S. Department of Agriculture (USDA) Web Soil Survey], Google Earth aerial images, U.S. Geological Survey (USGS) topographic quadrangle maps, and *A Manual of California Vegetation*[1] were reviewed to assess the potential for sensitive biological communities and special status species to occur on the Project Site. In addition, database searches of the California

[1] CNPS. 2018. A Manual of California Vegetation, Online Edition. Online at: http://vegetation.cnps.org/. Most recently accessed: April 2021.

Natural Diversity Database (CNDDB)[2] and the California Native Plant Society's Inventory of Rare and Endangered Plants[3] were performed for known occurrences of special status species near the Project Site; these searches focused on the Half Moon Bay 7.5-minute USGS quadrangle and the five surrounding quadrangles. On February 12, 2019, and April 27, 2021, Sol Ecology biologists performed reconnaissance-level surveys for Sensitive Natural Communities as defined in the LCP on and adjacent to the Project Site. The focus of the surveys was to identify whether suitable habitat elements for special status species documented in the surrounding vicinity are present on the Project Site or not and whether the project would have the potential to result in impacts to any of these species and/or their habitats either on- or off-site. The Project Site was also evaluated for sensitive habitats protected under federal and state regulation, including wetlands and/or non-wetland waters of the United States, as well as those habitats listed as environmentally sensitive habitat areas (ESHAs) under the LCP. Any ESHAs were mapped with the appropriate setback as defined in the LCP.

The Project Site was also evaluated to determine if any coastal wetland (one-parameter rule) is present, or if a riparian corridor is present. Coastal wetlands are defined as an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground (also known as hydrophytic); in either case, hydrology must be present also. Hydrophytic plants commonly found in wetlands in San Mateo County include cordgrass, pickleweed, jaumea, frankenia, marsh mint, tule, bulrush, narrow-leaf cattail, broadleaf cattail, pacific silverweed, salt rush, and bog rush. To qualify, a wetland must contain at least a 50 percent cover of some combination of these plants, unless it is a mudflat. Riparian corridors were identified as areas along streams that naturally support native vegetation and wetlands. These areas filter runoff, provide runoff protection, and facilitate groundwater recharge. Setbacks for wetlands and riparian corridors is 100 feet.

Coastal Wetland Criteria

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 of time under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. Hydric soils can have a hydrogen sulfide (rotten egg) odor, low chroma matrix color, generally designated 0, 1, or 2,

[2] California Department of Fish and Wildlife (CDFW). 2018. California Natural Diversity Database. Wildlife and Habitat Data Analysis Branch, Sacramento, CA.
[3] CNPS, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.29). Online at: http://www.rareplants.cnps.org. Most recently accessed July 2019.

used to identify them as hydric, presence of redox concentrations, gleyed or depleted matrix, or high organic matter content.

Hydrology

Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation, drift deposits, oxidized root channels, and salt crusts, or secondary indicators such as the FAC-neutral test, presence of a shallow aquitard, or crayfish burrows. The Arid West Supplement[4] contains 16 primary hydrology indicators and 10 secondary hydrology indicators. 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.

Vegetation

Plant species observed on the Project Site were identified using the second edition of the *Jepson Manual*[5]. Plants were assigned a wetland indicator status according to the National Wetland Plant List (NWPL)[6] as described below. To qualify, a wetland must contain at least 50 percent cover of some combination of obligate and facultative wetland plants. FAC species were not considered due to their common association with coastal upland habitats unless FAC species were present in combination with an obligate species and clear indicators of hydrology were present.

The NWPL wetland indicator statuses are based on the expected frequency of occurrence in wetlands as follows:

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

<u>Riparian Corridor and Buffer Zones Defined in the San Mateo County Local Coastal Program</u>

Pursuant to the San Mateo County Local Coastal Program (LCP)[7], riparian corridors are defined as an association of plant and animal species containing at least 50 percent cover of the following species: red alder, jaumea, pickleweed, big leaf maple, narrow-leaf cattail, arroyo willow,

[4] U.S. Army Corps of Engineers (USACE). 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0). J.S. Wakeley, R.W. Lichvar, and C.V. Noble (eds). ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

[5] Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley.

[6] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant* List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.

[7] County of San Mateo. 2013. Local Coastal Program Policies. Online at: https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/SMC_Midcoast_LCP_2013.pdf. Most recently accessed: April 2021.

broadleaf cattail, horsetail, creek dogwood, black cottonwood, and box elder. For perennial streams, the LCP requires a buffer of 50 feet outward from the limit of riparian vegetation.

Results

Biological communities present on the Project Site were classified based on existing plant community descriptions described in the *A Manual of California Vegetation*. Sensitive habitats are those habitats defined as sensitive under the Mid-Coast LCP Section 7.1. and are described below if found.

Overall the site consists of an existing residential unit and associated developments, ornamental landscaping, pastureland used for horse grazing, and Purisima Creek and its associated riparian habitat. Soils present on the Project Site are comprised mostly of Dublin clay, sloping, eroded; Gazos loam, very steep, eroded; and Mixed alluvial land. Elevation of the site ranges from 100 to 120 meters. Little to no change to plant community composition was noted between the 2019 and 2021 site assessments. Photographs of the Project Site on both dates are provided in Attachment B.

The undeveloped pastureland is dominated by ruderal vegetation including a variety of non-native, invasive, and ornamental species typical of urban areas that have been disturbed. Common species observed in the undeveloped pastureland include mustard (*Brassica spp.*), rye grass (*Festuca perennis)*, bristly ox-tongue (*Helmintotheca echioides*), wall barley (*Hordeum murinum*), sharp point flellin (*Kickxia elatine*), bird's-foot trefoil (*Lotus corniculatus*), cheeseweed (*Malva parviflora*), Jersey cudweed (*Pseudognaphalium luteoalbum*), and jointed charlock (*Raphanus sativus*). A couple of native plants were observed, including coyote brush (*Baccharis pilularis*) and Canada horseweed (*Erigeron canadensis*).

<u>Sensitive Habitats</u>

Purisima Creek, flowing east to west, bisects the property and borders the Project Site to the south. This feature contains riparian corridor, a sensitive community defined in the LCP (Attachment A, Figure 2). Riparian habitat was dominated by annual beard grass (*Polypogon monspeliensis*), arroyo willow (*Salix lasiolepis*), California blackberry (*Rubus ursinus*), cottonwood (*Populus fremontii*), curly dock (*Rumex crispus*), poison hemlock (*Conium maculatum*), prostrate knotweed (*Polygonum aviculare ssp. depressum*), stinging nettle (*Urtica dioica*), cape ivy (*Delairea odorata*), and white alder (*Alnus rhombifolia*). Water was flowing in Purisima Creek at the time of the site visit and it was noted that the channel bottom was sandy/loamy with cobble substrate. No aquatic species were observed. Purisima Creek flows to the Pacific Ocean (a traditional navigable water) and therefore, is considered a non-wetland water of the United States and state jurisdictional stream by the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW).

Special Status Species

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 species and those that are formal candidates for listing. Plant species on the California Native Plant Society's Rare and Endangered Plant Inventory with California Rare Plant Ranks of 1 and 2 are also considered special status plant species. CDFW Species of Special Concern, CDFW California Fully Protected species, USFWS Birds of Conservation Concern, and CDFW special status invertebrates are all considered special status species. Furthermore, CDFG Fish and Game Code and the Migratory Bird Treaty Act (MBTA) prohibits the take of actively nesting birds as well as common bats and their roosts (CDFG Code only). Lastly, special status species in this report include all rare or unique species listed in the LCP.

Eleven (11) special status plants have been documented within five miles of the Project Site (Attachment A, Figure 3, and Attachment C, CNDDB Summary Table), including one species not previously documented in the area. A total of 8 special status plants may be present in the riparian corridor primarily on the opposite bank where conditions and associated species are present. One special status plant, woodland woollythreads (*Monolopia gracilens)* has a low potential to occur on the project site within the proposed development area. This species was not observed during the April 2021 survey, which occurred during primary blooming window. Therefore, no given the disturbed nature of the site, impacts to specials status plants are not likely to occur.

A total of 15 special status animal (wildlife) species have been documented within five miles of the Project Area (Attachment A, Figure 4 and Attachment C, CNDDB Summary Table); one of which, western bumble bee was recently downgraded and is no longer a candidate for listing. Of these 15 species, 6 species have a moderate to high potential to occur in Purisima Creek including California giant salamander (*Dicamptodon ensanatus*), California red-legged frog (*Rana draytonii*), San Francisco garter snake *(Thamnophis sirtalis tetrataenia*), western pond turtle (*Actinemys marmorata*), steelhead - Central California Coast DPS (*Oncorhynchus mykiss irideus*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). However, only 2 of these species, California red-legged frog and San Francisco dusky-footed woodrat may potentially be present on the Project Site. These species are described in more detail below. The Project Site also has the potential to support nesting birds protected under the MBTA and CDFG Code.

The remaining 4 species potential for occurrence is limited to Purisima Creek only. There are no nearby ponds within 650 feet of the Project Site for San Francisco garter snake and thus, this species is not likely to make any overland movements across the site. Similarly, steelhead, western pond turtle, and California giant salamander are primarily aquatic; giant salamander and pond turtle can occur in uplands but are more typically present in moist riparian and/or forest habitat and are unlikely to be present in landscaped or managed pastureland on the site. Of the remaining species documented in the vicinity of the Project Site, the potential for presence is relatively low primarily given the absence of suitable habitat on or adjacent to the site. Additionally, a single grassland species western burrowing owl is documented within 5 miles of

the site. No suitable burrow habitat is present and current grazing practices likely precludes this species from occurring here.

California Red-legged Frog *(Rana draytonii),* Federal Threatened Species, CDFW Species of Special Concern. The California red-legged frog (CRLF) is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late fall, red-legged frogs disperse away from their estivation sites to seek suitable breeding habitat. Aquatic and breeding habitat are characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between late November and late April. Following breeding during the wet season, adult frogs may disperse into upland habitats which include areas up to 300 feet from aquatic and associated riparian habitat and are comprised of grasslands, woodlands, and/or vegetation that provide shelter, forage, and predator avoidance. Upland habitat can include structural features such as boulders, rocks and organic debris (e.g. downed trees, logs), as well as small mammal burrows and moist leaf litter. At the end of the wet season, CRLF may disperse up to one-mile overland from upland or breeding habitats (often via riparian corridors) to aquatic non-breeding habitats.[8] Although CRLF is highly aquatic, this species has been documented to make overland movements of several hundred meters and up to one mile during a winter-spring wet season in Northern California.

There are multiple occurrences of CRLF within 5 miles of the project site, though none are documented in Purisima Creek. Nonetheless there is potential for this species to be present in the creek and surrounding riparian habitat given the presence of deep pools and adjacent streamside vegetation. This species may move overland through the project site during dispersal events typically in the fall and spring – though this species is less likely to disperse through developed areas.

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), CDFW Species of Special Concern. This subspecies of the dusky-footed woodrat occurs in variable habitats including forest, woodland, riparian areas, and chaparral. Woodrats feed on woody plants, but will also consume fungi, grasses, flowers and acorns. Foraging occurs on the ground and in bushes and trees. This species constructs robust stick houses/structures in areas with moderate cover and a well-developed understory containing woody debris. Breeding takes place from December to September. Individuals are active year-round, and generally nocturnal.

Suitable habitat is present along Purisima Creek, in landscaped areas and in chaparral habitat to the south of the Project Site. Areas close to the existing residence are not suitable due to reduced cover. No woodrat stick houses were observed during the site visit.

Discussion and Recommendations

Purisima Creek and its associated riparian corridor is present along the southern border of the Project Site. A minimum 50-foot setback from riparian habitat is recommended for all re-development, including any new or existing buildings, the driveway, and/or septic areas in

[8] Fellers, G.M. and P.M. Kleeman. 2007. California red-legged frog (*Rana draytonii*) movement and habitat use: Implications for conservation. Journal of Herpetology 41(2): 276-286.

accordance with LCP guidelines to ensure impacts to this sensitive community does not occur. The extent of this setback is shown in Attachment A, Figure 2. Additionally, best management practices (i.e. silt fencing, wattles, erosion controls etc.) should be utilized during all construction related activities to minimize secondary or indirect impacts. No work is currently proposed within the riparian habitat corridor, other than removal of one stable. Given that this work includes primarily removal of the existing structure only, it is not anticipated that any direct impacts to habitat or sensitive species would occur.

The existing tennis court is partially located within the riparian corridor. It is surrounded by invasive plant species, cape ivy and English ivy. Because removal involves ground-disturbing activities, there is a moderate to high potential for such work to potentially impact listed species, such as CRLF that may be present in the surrounding vegetation. Because such work could result in incidental take of a federal listed species, it is recommended that it be left in place rather than removing it. Furthermore, given that surrounding vegetation consists primarily of invasive species, attempts to restore the habitat are not likely to be successful and may result in further expansion of the deleterious plant.

No special status plants are likely to be present outside the riparian habitat. Thus, the 50-foot setback will ensure any potential impacts to special status plants are avoided, as well as special status species that may occur in Purisima Creek.

Two special status species, CRLF and SFDFW have potential to occur on the Project Site, though their distribution is likely limited to riparian habitat primarily. The 50-foot riparian setback will provide partial protection to these species. Construction related activities have the potential to impact CRLF directly if present during dispersal events. No long-term effects to either species are anticipated due to existing development on-site. As such the following measures are recommended to avoid direct impacts to either species if present during the course of activities. As previously noted, removal of the existing tennis court is discouraged due to the potential for incidental take. Avoidance measures provided below will ensure take does not occur during activities elsewhere on the site. Additionally, there is a moderate potential for nesting birds and raptors protected under the MBTA to be present both on and adjacent to the Project Site. The following measures will also ensure impacts to nesting birds are avoided.

MM BIO-1: Pre-Construction Surveys for SFDFW
Pre-construction surveys for SFDFW houses shall be performed no less than 30 days prior construction (including ground disturbance work and/or demolition of existing structures). If stick houses are found and avoidance is not feasible, the houses shall be dismantled by hand under the supervision of a biologist. If young are encountered during the dismantling process, the material shall be placed back on the house and a buffer of 25 to 50 feet shall be established by the biologist for a minimum of 3 weeks to allow young time to mature and leave the nest. Nest material shall be moved to a suitable adjacent area for reuse.

MM BIO-2: Pre-Construction Survey for CRLF
A pre-construction survey for CRLF is recommended within 48 hours of ground disturbing activities. Non-listed species if found, may be relocated to suitable habitat outside the Project

Site. If CRLF is found, work should be halted, and the USFWS will be contacted. If possible, CRLF should be allowed to leave the area on its own. If the animal does not leave on its own, all work shall remain halted until the USFWS provide authorization for work to resume.

MM BIO-3: Work Windows
No ground-disturbing work (including demolition or vegetation removal) shall be performed during or within 48 hours of any rain event (greater than 0.5 inches) between November 1 and April 31 when CRLF are most likely to disperse into upland habitats. Furthermore, no work shall occur within 30 minutes of sunrise or sunset during this period.

MM BIO-4: Environmental Awareness Training
Environmental awareness training should be provided to all construction crew prior to the start of work. Training will include a description of all biological resources that may be found on or near the Project site, the laws and regulations that protect those resources, the consequences of non-compliance with those laws and regulations, instructions for inspecting equipment each morning prior to activities, and a contact person if protected biological resources are discovered on the Project site.

MM BIO-5: Erosion Control Materials
Tightly woven fiber netting or similar material shall be used for erosion control or other purposes to ensure amphibian and reptile species do not get trapped. Plastic monofilament netting (erosion control matting) rolled erosion control products, or similar material should not be used. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds.

MM BIO-6: Nesting Bird Surveys
Tree and vegetation removal activities should be initiated during the non-nesting season from September 1 to January 31 when possible. If work cannot be initiated during this period, then nesting bird surveys should be performed in trees proposed for removal and suitable nesting habitat within 500 feet of the project footprint.

If nests are found, a no-disturbance buffer should be placed around the nest until young have fledged or the nest is determined to be no longer active by the biologist. The size of the buffer may be determined by the biologist based on species and proximity to activities but should generally be between 50 to 100 feet for songbirds and up to 500 feet for nesting raptors.

Please do not hesitate to contact me with any questions.

Sincerely,

Dana Riggs,
Principal Biologist

ATTACHMENT A

PROJECT FIGURES: SITE LOCATION MAP, SENSITIVE COMMUNITIES AND SETBACKS, AND CNDDB DATABASE RESULTS

Figure 1: Project Location
2450 Purisima Creek Road, Half Moon Bay, CA

Date: 4-3-2020
Data: Sol Ecology Inc., San Mateo Co.
Base: ESRI
GIS: AJG

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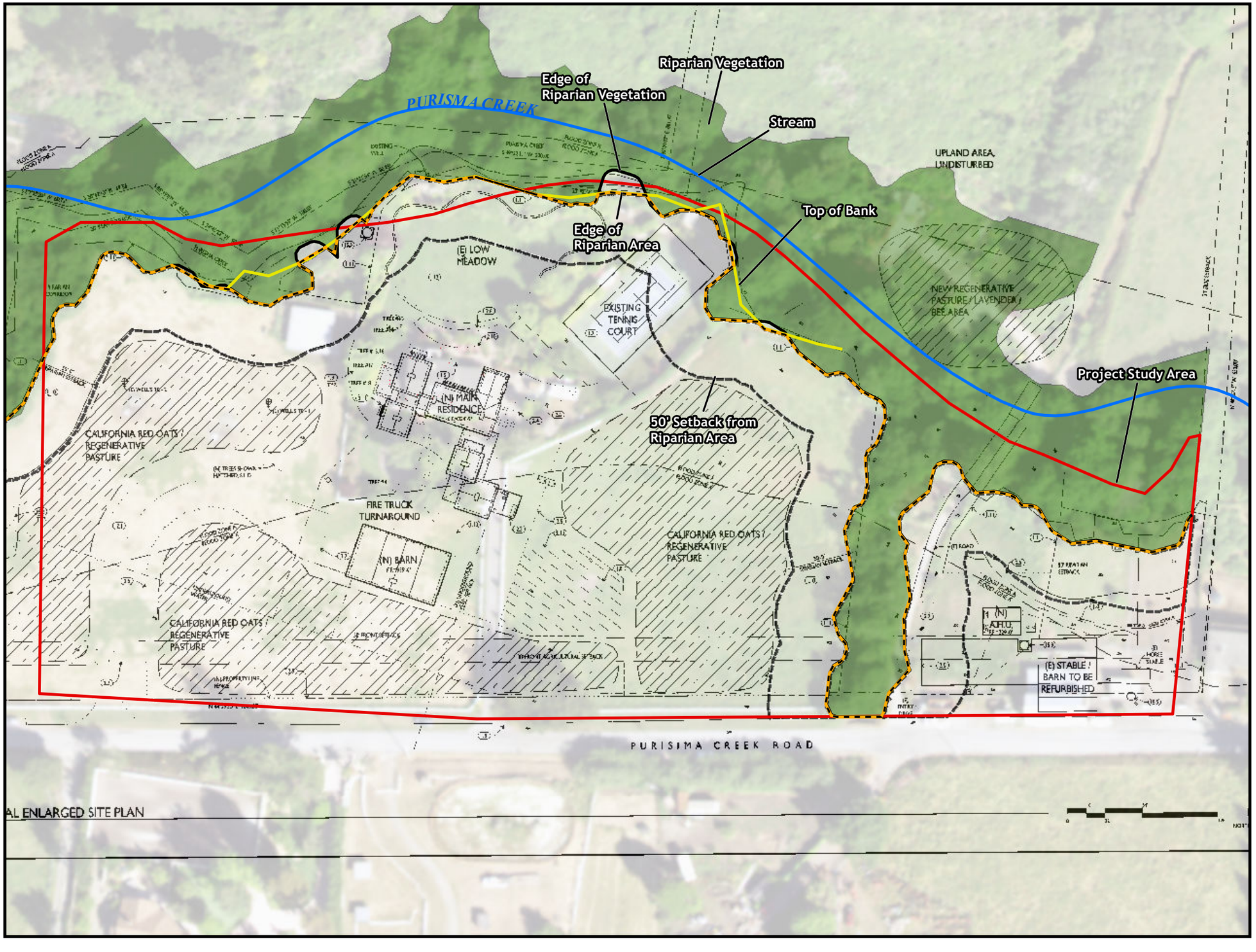
Figure 1. Sensitive Communities & Site Plan



11337 Barnet Valley Rd.
"Downhill" Project Site
Sebastopol, CA (APN 026-090-029)

Sensitive Communities Map

Legend

- Riparian Vegetation
- Edge of Riparian Vegetation
- Stream
- Top of Bank
- Edge of Riparian Area
- 50' Setback from Riparian Area
- Project Study Area

N

0 25 50 100
Feet

1 inch = 83 feet

Coordinate System: NAD 1983 UTM Zone 10N
Projection: Universal Transverse Mercator
Datum: North American 1983
Base: NAIP 2020

Date: 9-21-2021
Data: Sol Ecology Inc., San Mateo Co., Arcanum Architecture Inc.
GIS: AG1902

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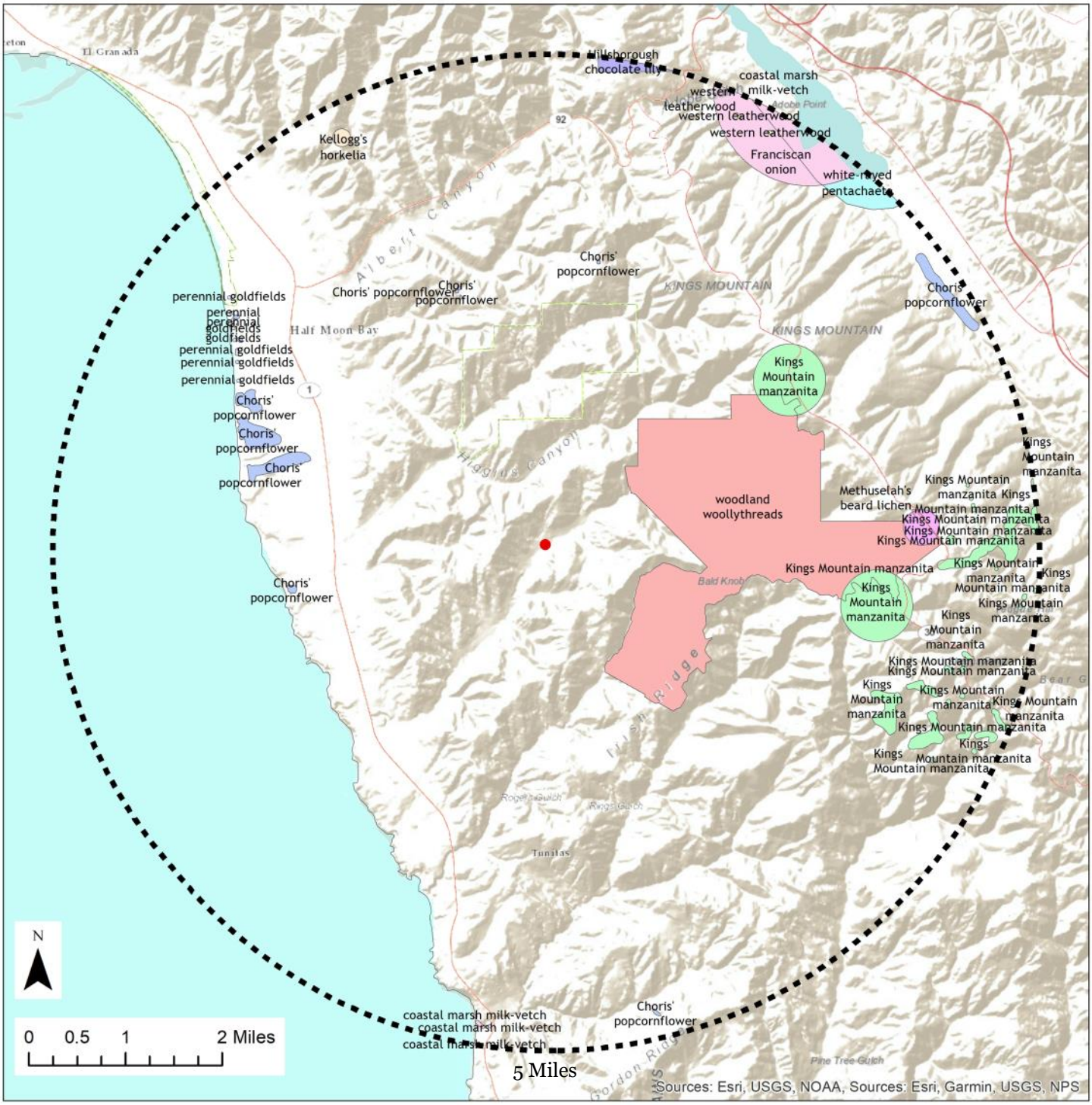
Figure 3: Special Status Plant Species within 5 Miles of the Project Site
2450 Purisima Creek Road, Half Moon Bay, CA (APN 066-230-050)



- Property Location
- 5-Mile Buffer
- Choris' popcornflower (7)
- Franciscan onion (1)
- Hillsborough chocolate lily (1)
- Kellogg's horkelia (1)
- Kings Mountain manzanita (5)
- Methuselah's beard lichen (1)
- coastal marsh milk-vetch (2)
- perennial goldfields (1)
- western leatherwood (2)
- white-rayed pentachaeta (1)
- woodland woollythreads (1)

Date: 10-8-2021
Data: Sol Ecology Inc., San Mateo Co., CDFW

Base: ESRI
GIS: LM1902

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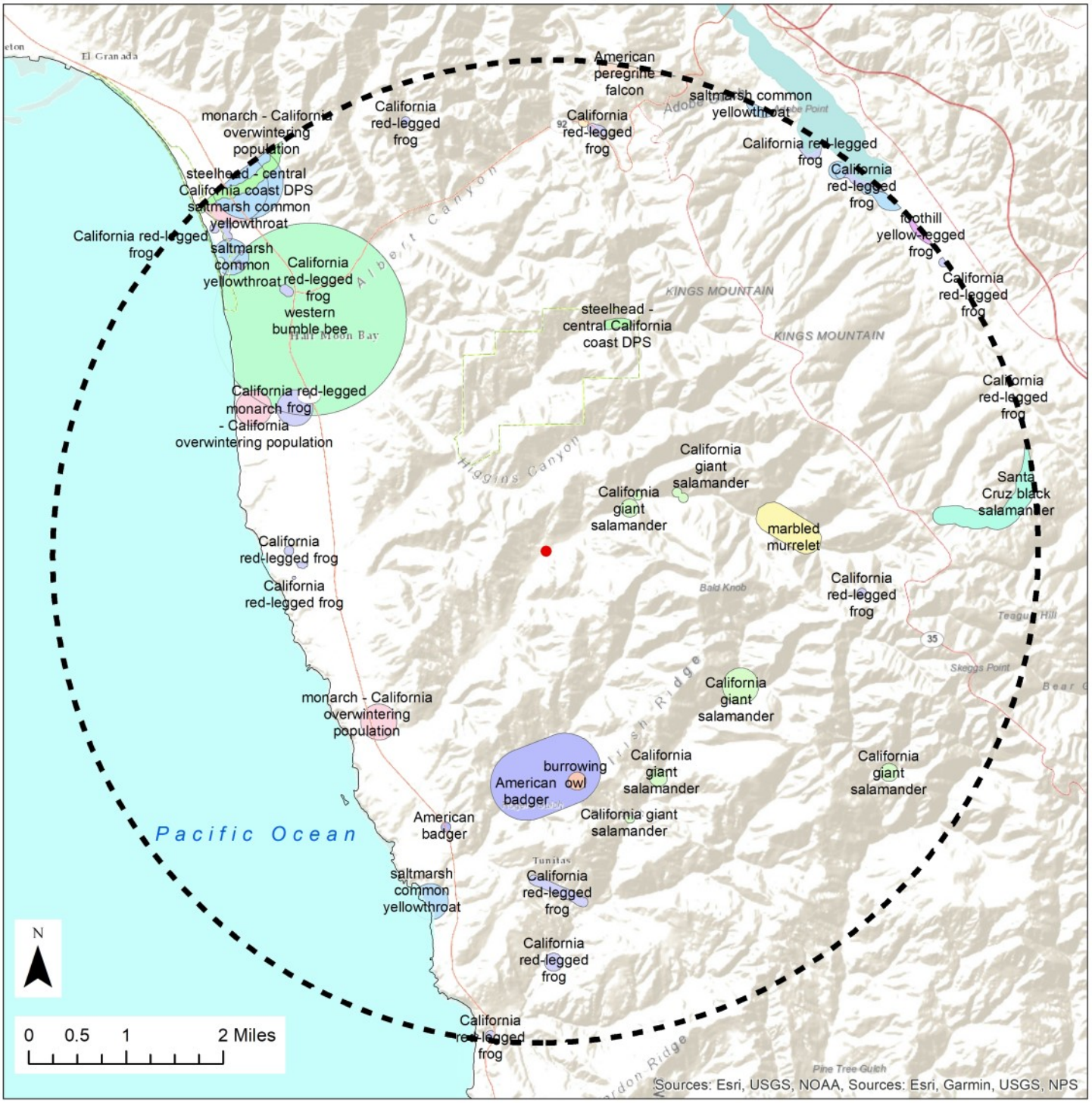
Figure 4: Special Status Animal Species within 5 Miles of the Project Site
2450 Purisima Creek Road, Half Moon Bay, CA



- Project Location
- 5-Mile Buffer
- American badger (2)
- American peregrine falcon (1)
- California giant salamander (5)
- California red-legged frog (14)
- San Francisco dusky-footed woodrat (1)
- Santa Cruz black salamande
- burrowing owl (1)
- foothill yellow-legged frog (1)
- marbled murrelet (1)
- monarch - California overwintering population (3)
- saltmarsh common yellowthroat (6)
- steelhead - central California coast DPS (2)
- western bumble bee (1)
- western pond turtle (1)
- western snowy plover (1)

Date: 4-3-2020
Data: Sol Ecology Inc., San Mateo Co., CDFW
Base: ESRI
GIS: AJG

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ATTACHMENT B

SITE PHOTOGRAPHS

Photo 1. Existing residence within the Project Site on February 12, 2019.

Photo 2. Existing residence within the Project Site on April 27, 2021.

Photo 3. Purisima Creek on February 12, 2019.

Photo 4. Purisima Creek on February 12, 2019.

Photo 5. Purisima Creek on February 12, 2019.

Photo 6. Tributary to Purisima Creek on April 27, 2021.

Photo 7. Undeveloped pastureland dominated by ruderal vegetation on February 12, 2019.

Photo 8. Undeveloped pastureland dominated by ruderal vegetation on April 27, 2021.

ATTACHMENT C

CNDDB WITHIN 5 MILES OF THE PROJECT SITE AND USFWS IPAC RESULTS

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Half Moon Bay (3712244) OR Montara Mountain (3712254) OR San Mateo (3712253) OR Woodside (3712243) OR San Gregorio (3712234) OR La Honda (3712233))
 AND Taxonomic Group IS (Dune OR Scrub OR Herbaceous OR Marsh OR Riparian OR Woodland OR Forest OR Alpine OR Inland Waters OR Marine OR Estuarine OR Riverine OR Palustrine OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes OR Fungi)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Acanthomintha duttonii San Mateo thorn-mint	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_UCBG-UC Botanical Garden at Berkeley	170 600	5 S:5	0	1	0	1	2	1	4	1	3	1	1
Agrostis blasdalei Blasdale's bent grass	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCSC-UC Santa Cruz	50 50	62 S:1	0	0	0	1	0	0	0	1	1	0	0
Allium peninsulare var. franciscanum Franciscan onion	G5T2 S2	None None	Rare Plant Rank - 1B.2	20 1,025	25 S:15	2	6	1	0	0	6	4	11	15	0	0
Amsinckia lunaris bent-flowered fiddleneck	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCBG-UC Botanical Garden at Berkeley SB_UCSC-UC Santa Cruz	220 475	93 S:4	0	2	1	0	0	1	1	3	4	0	0
Arctostaphylos andersonii Anderson's manzanita	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCSC-UC Santa Cruz	950 1,622	64 S:3	0	0	0	2	0	1	1	2	3	0	0
Arctostaphylos montaraensis Montara manzanita	G1 S1	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	1,000 1,500	4 S:3	2	0	1	0	0	0	1	2	3	0	0
Arctostaphylos regismontana Kings Mountain manzanita	G2 S2	None None	Rare Plant Rank - 1B.2	586 2,100	17 S:15	1	3	3	3	0	5	3	12	15	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Astragalus pycnostachyus var. pycnostachyus coastal marsh milk-vetch	G2T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley	10 500	25 S:9	0	5	1	0	0	3	4	5	9	0	0
Centromadia parryi ssp. parryi pappose tarplant	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	10 23	39 S:2	0	0	0	1	0	1	1	1	2	0	0
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	G4?T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	5 5	76 S:1	0	0	0	0	1	0	1	0	0	1	0
Chorizanthe cuspidata var. cuspidata San Francisco Bay spineflower	G2T1 S1	None None	Rare Plant Rank - 1B.2		17 S:1	0	0	0	0	0	1	1	0	1	0	0
Cirsium andrewsii Franciscan thistle	G3 S3	None None	Rare Plant Rank - 1B.2	200 450	31 S:2	0	0	0	0	0	2	2	0	2	0	0
Cirsium fontinale var. fontinale fountain thistle	G2T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	400 600	5 S:3	0	1	1	0	1	0	2	1	2	1	0
Collinsia multicolor San Francisco collinsia	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCSC-UC Santa Cruz	100 700	36 S:11	0	5	0	0	0	6	3	8	11	0	0
Dirca occidentalis western leatherwood	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	255 1,320	90 S:30	8	7	2	0	0	13	4	26	30	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Eriophyllum latilobum San Mateo woolly sunflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	100 900	8 S:7	1	2	1	0	1	2	1	6	6	1	0
Fissidens pauperculus minute pocket moss	G3? S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	250 250	22 S:1	0	0	0	0	0	1	0	1	1	0	0
Fritillaria biflora var. ineziana Hillsborough chocolate lily	G3G4T1 S1	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley SB_USDA-US Dept of Agriculture	550 550	2 S:2	0	1	0	0	0	1	1	1	2	0	0
Fritillaria liliacea fragrant fritillary	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	295 800	82 S:7	0	5	0	0	0	2	3	4	7	0	0
Grindelia hirsutula var. maritima San Francisco gumplant	G5T1Q S1	None None	Rare Plant Rank - 3.2 SB_UCSC-UC Santa Cruz	200 200	15 S:1	0	0	0	0	0	1	1	0	1	0	0
Hesperevax sparsiflora var. brevifolia short-leaved evax	G4T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	400 400	72 S:1	0	0	0	0	0	1	1	0	1	0	0
Hesperolinon congestum Marin western flax	G1 S1	Threatened Threatened	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley	200 700	27 S:9	0	5	2	0	2	0	3	6	7	2	0
Horkelia cuneata var. sericea Kellogg's horkelia	G4T1? S1?	None None	Rare Plant Rank - 1B.1 SB_UCSC-UC Santa Cruz USFS_S-Sensitive	600 600	58 S:2	0	0	0	0	0	2	2	0	2	0	0
Horkelia marinensis Point Reyes horkelia	G2 S2	None None	Rare Plant Rank - 1B.2	300 300	36 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Hypogymnia schizidiata island tube lichen	G2G3 S2	None None	Rare Plant Rank - 1B.3	1,290 1,780	10 S:3	2	0	0	0	0	1	0	3	3	0	0
Lasthenia californica ssp. macrantha perennial goldfields	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	40 350	59 S:4	0	1	1	1	0	1	0	4	4	0	0
Leptosiphon croceus coast yellow leptosiphon	G1 S1	None Endangered	Rare Plant Rank - 1B.1 SB_UCBG-UC Botanical Garden at Berkeley	50 50	1 S:1	0	0	0	1	0	0	0	1	1	0	0
Leptosiphon rosaceus rose leptosiphon	G1 S1	None None	Rare Plant Rank - 1B.1	70 70	31 S:4	0	1	0	0	2	1	2	2	2	2	0
Lessingia arachnoidea Crystal Springs lessingia	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	300 550	11 S:8	2	2	1	0	0	3	2	6	8	0	0
Limnanthes douglasii ssp. ornduffii Ornduff's meadowfoam	G4T1 S1	None None	Rare Plant Rank - 1B.1 SB_UCSC-UC Santa Cruz	30 50	2 S:2	0	0	0	0	1	1	0	2	1	1	0
Malacothamnus arcuatus arcuate bush-mallow	G2Q S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	10 700	30 S:10	0	1	1	1	1	6	6	4	9	0	1
Microseris paludosa marsh microseris	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden SB_UCSC-UC Santa Cruz	40 40	38 S:1	0	0	0	0	1	0	1	0	0	0	1
Monolopia gracilens woodland woollythreads	G3 S3	None None	Rare Plant Rank - 1B.2	640 675	68 S:6	0	1	0	0	0	5	3	3	6	0	0
N. Central Coast Calif. Roach/Stickleback/Steelhead Stream N. Central Coast Calif. Roach/Stickleback/Steelhead Stream	GNR SNR	None None		130 200	2 S:2	0	2	0	0	0	0	2	0	2	0	0
North Central Coast Steelhead/Sculpin Stream North Central Coast Steelhead/Sculpin Stream	GNR SNR	None None		160 160	1 S:1	0	1	0	0	0	0	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Northern Coastal Salt Marsh	G3	None		15	53	0	0	0	0	0	3	3	0	3	0	0
Northern Coastal Salt Marsh	S3.2	None		15	S:3											
Northern Maritime Chaparral	G1	None		1,000	17	1	0	0	0	0	1	2	0	2	0	0
Northern Maritime Chaparral	S1.2	None		1,400	S:2											
Pentachaeta bellidiflora	G1	Endangered	Rare Plant Rank - 1B.1 SB_UCBG-UC Botanical Garden at Berkeley	500	14	1	0	0	0	1	1	2	1	2	0	1
white-rayed pentachaeta	S1	Endangered		520	S:3											
Plagiobothrys chorisianus var. chorisianus	G3T1Q	None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCSC-UC Santa Cruz	35	42	1	9	4	0	0	4	2	16	18	0	0
Choris' popcornflower	S1	None		1,250	S:18											
Polemonium carneum	G3G4	None	Rare Plant Rank - 2B.2		16	0	0	0	0	0	1	1	0	1	0	0
Oregon polemonium	S2	None			S:1											
Potentilla hickmanii	G1	Endangered	Rare Plant Rank - 1B.1	25	4	0	1	0	0	1	0	1	1	1	0	1
Hickman's cinquefoil	S1	Endangered		240	S:2											
Sacramento-San Joaquin Coastal Lagoon	GNR	None		10	2	0	2	0	0	0	0	2	0	2	0	0
Sacramento-San Joaquin Coastal Lagoon	SNR	None		10	S:2											
Senecio aphanactis	G3	None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	640	98	0	0	0	0	0	1	1	0	1	0	0
chaparral ragwort	S2	None		640	S:1											
Serpentine Bunchgrass	G2	None		500	22	2	1	1	0	0	0	4	0	4	0	0
Serpentine Bunchgrass	S2.2	None		720	S:4											
Silene scouleri ssp. scouleri	G5T4T5	None	Rare Plant Rank - 2B.2	800	23	0	0	0	0	0	4	1	3	4	0	0
Scouler's catchfly	S2S3	None		1,025	S:4											
Silene verecunda ssp. verecunda	G5T1	None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCSC-UC Santa Cruz	375	20	0	1	0	0	1	1	2	1	2	1	0
San Francisco campion	S1	None		1,500	S:3											

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Trifolium hydrophilum saline clover	G2 S2	None None	Rare Plant Rank - 1B.2		56 S:1	0	0	0	0	0	1	1	0	1	0	0
Triphysaria floribunda San Francisco owl's-clover	G2? S2?	None None	Rare Plant Rank - 1B.2	5 450	50 S:5	0	0	0	0	1	4	5	0	4	0	1
Triquetrella californica coastal triquetrella	G2 S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	1,180 1,180	13 S:1	0	0	0	0	0	1	0	1	1	0	0
Usnea longissima Methuselah's beard lichen	G4 S4	None None	Rare Plant Rank - 4.2 BLM_S-Sensitive	590 590	206 S:1	0	0	0	0	1	0	1	0	0	1	0
Valley Needlegrass Grassland Valley Needlegrass Grassland	G3 S3.1	None None		400 1,000	45 S:2	1	0	0	0	0	1	2	0	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Half Moon Bay (3712244) OR Montara Mountain (3712254) OR San Mateo (3712253) OR Woodside (3712243) OR San Gregorio (3712234) OR La Honda (3712233))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	G2G3 S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	400 400	1261 S:1	0	0	0	0	1	0	1	0	0	1	0
Aneides niger Santa Cruz black salamander	G3 S3	None None	CDFW_SSC-Species of Special Concern	534 1,487	78 S:3	0	0	0	0	0	3	2	1	3	0	0
Antrozous pallidus pallid bat	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	40 420	420 S:4	0	0	0	0	0	4	4	0	4	0	0
Ardea herodias great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	5 5	156 S:1	0	0	0	0	0	1	1	0	1	0	0
Athene cunicularia burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	5 842	2011 S:3	0	1	0	0	0	2	0	3	3	0	0
Bombus caliginosus obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	40 500	181 S:6	0	0	0	0	0	6	6	0	6	0	0
Bombus occidentalis western bumble bee	G2G3 S1	None None	USFS_S-Sensitive	40 100	306 S:5	0	0	0	0	0	5	5	0	5	0	0
Brachyramphus marmoratus marbled murrelet	G3 S2	Threatened Endangered	CDF_S-Sensitive IUCN_EN-Endangered NABCI_RWL-Red Watch List	200 800	110 S:6	0	0	0	0	0	6	3	3	6	0	0
Calicina minor Edgewood blind harvestman	G1 S1	None None		400 560	2 S:2	0	0	0	0	0	2	2	0	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Callophrys mossii bayensis San Bruno elfin butterfly	G4T1 S3	Endangered None		600 1,882	6 S:4	2	0	0	0	0	2	0	4	4	0	0
Charadrius nivosus nivosus western snowy plover	G3T3 S2	Threatened None	CDFW_SSC-Species of Special Concern NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	10 17	138 S:3	1	0	0	0	0	2	2	1	3	0	0
Corynorhinus townsendii Townsend's big-eared bat	G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	190 2,170	635 S:7	0	0	0	1	0	6	2	5	7	0	0
Danaus plexippus pop. 1 monarch - California overwintering population	G4T2T3 S2S3	Candidate None	USFS_S-Sensitive	40 150	383 S:5	0	1	1	0	2	1	5	0	3	2	0
Dicamptodon ensatus California giant salamander	G3 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	300 1,400	234 S:11	1	2	0	0	0	8	7	4	11	0	0
Dipodomys venustus venustus Santa Cruz kangaroo rat	G4T1 S1	None None		42 42	29 S:1	0	0	0	0	1	0	1	0	0	1	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	21 949	1398 S:12	1	10	1	0	0	0	0	12	12	0	0
Eucyclogobius newberryi tidewater goby	G3 S3	Endangered None	AFS_EN-Endangered IUCN_VU-Vulnerable	15 20	127 S:2	0	1	0	0	0	1	2	0	2	0	0
Eumetopias jubatus Steller (=northern) sea-lion	G3 S2	Delisted None	IUCN_EN-Endangered MMC_SSC-Species of Special Concern	15 15	38 S:1	0	0	0	0	0	1	1	0	1	0	0
Euphydryas editha bayensis Bay checkerspot butterfly	G5T1 S1	Threatened None		300 640	30 S:4	0	1	0	0	3	0	3	1	1	2	1
Falco columbarius merlin	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	65 65	37 S:1	0	1	0	0	0	0	0	1	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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Falco peregrinus anatum American peregrine falcon	G4T4 S3S4	Delisted Delisted	CDF_S-Sensitive CDFW_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	5 5	58 S:1	0	0	0	0	0	1	0	1	1	0	0
Geothlypis trichas sinuosa saltmarsh common yellowthroat	G5T3 S3	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	10 480	112 S:12	1	2	2	0	0	7	12	0	12	0	0
Hydrochara rickseckeri Ricksecker's water scavenger beetle	G2? S2?	None None		35 280	13 S:2	0	0	0	0	0	2	2	0	2	0	0
Ischnura gemina San Francisco forktail damselfly	G2 S2	None None	IUCN_VU-Vulnerable	26 75	7 S:2	0	0	0	0	0	2	2	0	2	0	0
Lasiurus cinereus hoary bat	G3G4 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority		238 S:6	0	0	0	0	0	6	6	0	6	0	0
Laterallus jamaicensis coturniculus California black rail	G3G4T1 S1	None Threatened	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	5 5	303 S:1	0	0	0	1	0	0	1	0	1	0	0
Lichnanthe ursina bumblebee scarab beetle	G2 S2	None None		15 15	8 S:1	0	0	0	0	0	1	1	0	1	0	0
Melospiza melodia pusillula Alameda song sparrow	G5T2? S2S3	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	10 42	38 S:3	0	0	0	0	0	3	3	0	3	0	0
Microcina edgewoodensis Edgewood Park micro-blind harvestman	G1 S1	None None		600 600	1 S:1	0	0	0	0	0	1	1	0	1	0	0
Myotis thysanodes fringed myotis	G4 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	500 500	86 S:1	0	1	0	0	0	0	0	1	1	0	0

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California Department of Fish and Wildlife

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	G5T2T3 S2S3	None None	CDFW_SSC-Species of Special Concern	270 522	42 S:7	0	2	0	0	0	5	1	6	7	0	0
Nyctinomops macrotis big free-tailed bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_MH-Medium-High Priority	150 150	32 S:1	0	0	0	0	0	1	1	0	1	0	0
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	G5T2T3Q S2S3	Threatened None	AFS_TH-Threatened	100 550	44 S:6	0	2	0	0	0	4	5	1	6	0	0
Phalacrocorax auritus double-crested cormorant	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	30 30	39 S:1	0	0	0	0	0	1	1	0	1	0	0
Plebejus icarioides missionensis Mission blue butterfly	G5T1 S1	Endangered None		500 700	14 S:2	0	0	0	0	0	2	2	0	2	0	0
Rallus obsoletus obsoletus California Ridgway's rail	G3T1 S1	Endangered Endangered	CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	0 15	99 S:4	0	1	1	0	1	1	2	2	3	1	0
Rana boylii foothill yellow-legged frog	G3 S3	None Endangered	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	192 878	2476 S:8	0	1	0	0	2	5	8	0	6	0	2
Rana draytonii California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	6 4,005	1664 S:112	16	36	20	13	1	26	13	99	111	1	0
Reithrodontomys raviventris salt-marsh harvest mouse	G1G2 S1S2	Endangered Endangered	CDFW_FP-Fully Protected IUCN_EN-Endangered	2 2	144 S:1	0	0	0	0	0	1	1	0	1	0	0
Riparia riparia bank swallow	G5 S2	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern		298 S:1	0	0	0	0	0	1	1	0	1	0	0
Speyeria zerene myrtleae Myrtle's silverspot butterfly	G5T1 S1	Endangered None		20 60	17 S:3	0	0	0	0	3	0	3	0	0	0	3
Spirinchus thaleichthys longfin smelt	G5 S1	Candidate Threatened		0 20	46 S:2	0	0	0	0	0	2	2	0	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Taxidea taxus	G5	None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	187	594	0	0	0	0	0	9	1	8	9	0	0
American badger	S3	None		1,599	S:9											
Thamnophis sirtalis tetrataenia	G5T2Q	Endangered	CDFW_FP-Fully Protected	5	66	5	11	4	0	1	16	21	16	36	0	1
San Francisco gartersnake	S2	Endangered		1,355	S:37											
Tryonia imitator	G2	None	IUCN_DD-Data Deficient	3	39	0	1	0	0	0	1	1	1	2	0	0
mimic tryonia (=California brackishwater snail)	S2	None		40	S:2											

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Mateo County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Southern Sea Otter Enhydra lutris nereis — Threatened
Wherever found — Marine mammal
No critical habitat has been designated for this species.
http://ecos.fws.gov/ecp/species/8560

Birds

NAME	STATUS

California Least Tern Sterna antillarum browni — Endangered
Wherever found
No critical habitat has been designated for this species.
http://ecos.fws.gov/ecp/species/8104

Marbled Murrelet Brachyramphus marmoratus — Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/4467

Western Snowy Plover Charadrius nivosus nivosus — Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/8035

Reptiles

NAME	STATUS

Green Sea Turtle Chelonia mydas — Threatened
No critical habitat has been designated for this species.
http://ecos.fws.gov/ecp/species/6199

San Francisco Garter Snake Thamnophis sirtalis tetrataenia — Endangered
Wherever found
No critical habitat has been designated for this species.
http://ecos.fws.gov/ecp/species/5956

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/2891

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/321	Threatened
Tidewater Goby Eucyclogobius newberryi Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php