

July 10, 2024

Olivier Nolan-Stevaux  
c/o Abby Wittman  
Clever Homes by Toby Long Design  
6114 La Salle Avenue #552  
Oakland, CA 94611

**Re: Coastal Biological Resources Evaluation for the Nolan-Stevaux Pescadero Creek Road Project, Pescadero, San Mateo County, California**

Dear Ms. Wittman,

The purpose of this letter report is to provide the results of a biological resource evaluation (BRE) of the natural communities, sensitive habitats, and special status species potentially present at the Stevoux property (APN 088-090-030), located on Pescadero Creek Road, in rural San Mateo County, California (Project Study Area; Attachment A, Figure 1). This assessment is required for a new coastal development permit by the San Mateo County Planning Department. The purpose of this project is to build a single-family home with related appurtenances including a new septic system.

The 1.99-acre Project Study Area is located on Pescadero Creek Road, approximately 4.4 miles east of the town of Pescadero. The Project Study Area is on a slope running west from Pescadero Creek Road down to the riparian corridor of Pescadero Creek, which flows on a southern course along the western boundary of the Project Study Area. Surrounding properties are used for agriculture and residences. The creek sustains a thick riparian corridor dominated by willows and alders, with Douglas fir, redwood, and box-elder interspersed. Outside of the riparian corridor, the Project Study Area is primarily ruderal grassland. The entire property is in designated critical habitat for California red-legged frog (*Rana draytonii*).

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

## Methods

On April 5 and April 18, 2024, Sol Ecology, Inc. (Sol Ecology) biologists conducted a biological resources study at the Project Study Area which includes the proposed project footprint and outlying areas that could be affected indirectly by project activities (Attachment A, Figure 1). Prior to the site visit, Sol Ecology biologists reviewed the Google Earth aerial images, USGS topographic quadrangle maps, and the County of San Mateo Mid-Coast Local Coastal Program (LCP) to evaluate whether sensitive biological resources (e.g., wetlands) or special status species could occur in the Project Study Area and vicinity. In addition, the following literature and databases were also reviewed:

- Soil Survey of San Mateo County, California [U.S. Department of Agriculture (USDA) Web Soil Survey;
- California Native Plant Society's (CNPS) *A Manual of California Vegetation, Online Edition*<sup>1</sup>
- CNPS's Inventory of Rare and Endangered Plants of California search for U.S. Geological Survey (USGS) 7.5-minute La Honda quadrangle and eight adjacent quadrangles<sup>2</sup>;
- California Natural Diversity Database (CNDDDB) records search for USGS 7.5-minute La Honda quadrangle and seven adjacent quadrangles<sup>3</sup>;
- U.S. Fish and Wildlife Service (USFWS) list of threatened and endangered species for the Project Study Area<sup>4</sup>;
- CDFG (California Department of Fish and Game) publication "California's Wildlife, Volumes I-III"<sup>5</sup>;
- CDFG publication California Bird Species of Special Concern<sup>6</sup>;
- California Department of Fish and Wildlife (CDFW) and University of California Press publication California Amphibian and Reptile Species of Special Concern<sup>7</sup>;
- USFWS National Wetlands Inventory, Wetlands Mapper<sup>8</sup>; and

---

<sup>1</sup> California Native Plant Society (CNPS). 2024a. *A Manual of California Vegetation, Online Edition*. Sacramento, California. Online at: <http://vegetation.cnps.org/>; accessed: May 2024

<sup>2</sup> CNPS, Rare Plant Program. 2024 Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Available at: <http://www.rareplants.cnps.org>. Most recently accessed: May 2024.

<sup>3</sup> CDFW. 2024. California Natural Diversity Database (CNDDDB). Wildlife and Habitat Data Analysis Branch, Sacramento, CA. Most recently accessed: May 2024.

<sup>4</sup> U.S. Fish and Wildlife Service. 2024. Information for Conservation and Planning Database. Available at: <https://ecos.fws.gov/ipac/location/index>. Most recently accessed: May 2024.

<sup>5</sup> Zeiner, DC, WF Laudenslayer, Jr., KE Juneer, and M White. 1990. *California's Wildlife, Volume I-III: Amphibians and Reptiles, Birds, Mammals*. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, CA.

<sup>6</sup> Shuford, WD, and T Gardali (eds). 2008. *California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California*. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and CDFG, Sacramento.

<sup>7</sup> Thomson, R.C., A.N. Wright, and H.B. Shaffer. 2016. *California Amphibian and Reptile Species of Special Concern*. California Department of Fish and Wildlife University Press.

<sup>8</sup> USFWS. 2020. National Wetlands Inventory, Wetlands Mapper. Available at: <https://www.fws.gov/wetlands/data/mapper.html>. Most recently accessed: May 2024.

- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Web Soil Survey<sup>9</sup>.

The site assessment focused on determining whether suitable habitat elements for special status species (including those unique species listed in the LCP) documented to occur in the surrounding vicinity are present on the Project Study Area 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 Study Area 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. To qualify, a coastal 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 per the LCP are 100 feet; setbacks for riparian corridors are 50-feet for perennial streams and 30-feet for intermittent.

### 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, 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

---

<sup>9</sup> USDA, NRCS. 2019. Web Soil Survey. Web application. Last updated: April 9, 2019. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Most recently accessed: May 2024.

Supplement<sup>10</sup> 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 Study Area were identified using the CNPS Online Manual. Plants were assigned a wetland indicator status according to the National Wetland Plant List (NWPL)<sup>11</sup> as described below. To qualify, a wetland must contain at least a 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 present in combination with an obligate species and clear indicators of hydrology were present.

Wetland indicator statuses listed in the NWPL 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%            |

### **Results**

Biological communities present on the Project Study Area were classified based on existing plant community descriptions described in the CNPS Online Manual. However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Sensitive habitats are those habitats defined as sensitive under the Mid-Coast LCP Section 7.1 and are described below if found.

The elevation within the Project Study Area is 29 to 37 meters (96 to 122 feet) above mean sea level. The Project Study Area encompasses two soil map units identified by the USDA, NRCS (USDA 2019):

- **Soquel loam, gently sloping:** moderately well drained; this soil map unit occurs in flood plains and has a parent material of alluvium. Soquel loam is not rated as a hydric soil. Minor components include Corralitos (10%) and Farallon (5%).
- **Corralitos sandy loam, gently sloping:** this soil map unit is somewhat excessively drained and occurs in alluvial fans and flood plains. The soil parent material is alluvium. Corralitos sandy

<sup>10</sup> U.S. Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0).

<sup>11</sup> USACE. 2020. National Wetland Plant List. Western Mountains, Valleys, and Coast Regional List. Online at: [https://wetland-plants.usace.army.mil/nwpl\\_static/v34/home/home.html](https://wetland-plants.usace.army.mil/nwpl_static/v34/home/home.html); accessed: April 2024

loam is not rated as a hydric soil. Minor components Soquel (5%), Tunitas (5%), and Dublin (5%).

- **Tunitas loam, sloping, eroded:** this soil map unit is moderately well drained and occurs in alluvial fans and flood plains. The soil parent material is alluvium. Tunitas loam is not rated as a hydric soil but is farmland of statewide importance. Minor components Soquel (5%), Corralitos (5%), Botella (5%).

The Project Study Area is comprised of a ruderal field covered in non-native grasses and herbs and riparian woodland adjacent to Pescadero Creek on the west side of the Project Study Area. Within the ruderal field, non-native species include sow thistle (*Sonchus oleraceus*), wild oat (*Avena barbata*), sheep sorrel (*Rumex crispex*), wild geranium (*Geranium dissectum*), bristly oxtongue (*Helminthotheca echioides*), hairy cats ears (*Hypochaeris radicata*) and soft wild brome (*Bromus hordeaceus*). A few coast live oaks (*Quercus agrifolia*) and shreve oaks (*Quercus parvula* var. *shrevei*) are scattered throughout the Project Study Area. Species observed during the assessment are provided in Attachment C.

### Sensitive Habitats (ESHA)

Based on data available on the site and conditions observed at the time of the site assessment, one ESHA, riparian habitat, was observed outside the Project footprint but within the Project Study Area. This riparian habitat is associated with Pescadero Creek, as shown on Figure 1 (Attachment A). The riverine habitat of the creek itself is outside of the boundaries of the parcel.

#### Riparian

The riparian corridor associated with Pescadero Creek consists of dense vegetation dominated by a contiguous canopy comprised of a mix of arroyo willow (*Salix lasiolepis*), box elder (*Acer negundo*) and red alder (*Alnus rubra*) surrounded by coast redwood (*Sequoia sempervirens*) and douglas fir (*Pseudotsuga menziesii*) further to the west over Pescadero Creek. The riparian understory is dominated by a mix of native and non-native shrubs and herbs such as poison oak (*Toxicodendron diversilobum*), and many invasive species including cape ivy (*Delairea odorata*), poison hemlock (*Conium maculatum*), and forget-me-nots (*Myosotis* sp.). Bird activity was high in the riparian corridor. Birds observed included song sparrow (*Melospiza melodia*), acorn woodpecker, and Allen's hummingbird (*Selasphorus sasin*). An old San Francisco dusky-footed woodrat (SDFW; *Neotoma fuscipes annectens*) nest complex was present in the riparian corridor although it may no longer be active. Both Allen's hummingbird and SDFW are considered special status species.

### 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 (CNPS) Rare and Endangered Plant Inventory (Inventory) with

California Rare Plant Ranks (Rank) 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.

Fourteen (14) special status plants have been documented within 5 miles of the Project Study Area (Attachment A, Figure 2). Of these, none are present or have potential to occur in the Project Study Area due to the disturbed nature of the site, along with soil and habitat type conditions present. One species, San Mateo woolly sunflower, was documented in an approximate location northeast of the Project footprint in 1929. This occurrence is presumed extirpated after multiple surveys could not relocate it following development in the area. No indirect effects to this species are likely due to lack of suitable habitat.

Eighteen (18) special status animals have been documented within 5 miles of the Project Study Area (Attachment A, Figure 3). Given proximity of the site to Pescadero Creek and its associated riparian habitat and creek corridor to the west (outside the Project Study Area), two federal listed wildlife species, and four special status wildlife species along with other migratory bird species protected under the MBTA may be present in the Project Study Area, in surrounding habitats outside the proposed project footprint. These species are described in greater detail in Table 1 below.

**Table 1. Special Status Wildlife with Potential to Occur in the Project Study Area**

| Scientific Name/<br>Common Name                                      | Status <sup>1</sup> | Habitat   | Potential for Occurrence Within the Project Footprint  |
|--|---------------------|---|--|
| <b>Amphibians and Reptiles</b>                                       |                     |   |  |
| <i>Thamnophis sirtalis tetrataenia</i><br>San Francisco garter snake | FE, SE, FP          | Occur in the vicinity of freshwater marshes, ponds, and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important for refuge sites.      | <b>Low Potential:</b> Four occurrences are found within five miles; the nearest occurrence is about 1.6 miles NNE of the site, where several individuals were detected between 1971-1983 and 1987. Pescadero Creek and the nearby Butano Creek are documented to provide foraging and dispersal habitat for this species. This species is not likely to be present in the proposed footprint due to the lack of available cover and pond habitat, and limited refugia close to water. Given the site is not within any dispersal corridor to nearby ponds, and there may no longer be extant source populations within dispersal distance of the Project Study Area, SFGS is not expected to occur in upland habitats beyond the riparian corridor.  |
| <i>Rana draytonii</i><br>California red-legged frog                  | FT, SSC             | Lowlands in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Prefers shorelines with extensive vegetation. Disperses through upland habitats after rains. | <b>Moderate-High Potential:</b> The site is within designated critical habitat. Multiple occurrences are found within five miles; the nearest is within one mile of the Project Study Area. Pescadero Creek is documented to provide breeding, foraging, and dispersal habitat for this species. The riparian habitat is an important corridor for dispersal which contains suitable upland refugia such as large woody debris. The steep creek banks adjacent to the Project Study Area may limit their dispersal from the creek into the work footprint. Outside of the riparian habitat, there are limited rodent burrows on the site which only provide marginally suitable refugia for dispersing frogs. There are also no suitable breeding ponds in the direction or vicinity of the Project Study Area which would attract CRLF to use it as a dispersal corridor outside of the riparian habitat. As such, CRLF can be expected to occur within the riparian corridor in the Project Study Area but have a low likelihood of dispersing through the work footprint. |
| <b>Birds</b>   |                     |   |  |
| <i>Selasphorus sasin</i><br>Allen's hummingbird                      | BCC                 | Resident to the coast of California and Oregon during the breeding season. Nests are constructed in trees or shrubs near shady streams in both understory and tree canopy.  | <b>Presumed Present:</b> An Allen's hummingbird was observed in the Project Study Area. Suitable nesting and foraging habitat are present in the riparian corridor, which features shade over Pescadero Creek and flowering plants for foraging. Allen's hummingbird is typically present in San Mateo County from late January to early August and may breed between February and July.   |

| Mammals   |     |   |  |
|---|-----|---|--|
| <i>Neotoma fuscipes annectens</i><br>San Francisco dusky-footed woodrat | SSC | Forest, riparian, and chaparral habitats of moderate canopy and moderate to dense understory. Constructs nests of shredded grass, leaves, and other material. | <b>High Potential:</b> An old, possibly abandoned SFDFW house was observed in the riparian corridor. SFDFW is prevalent in coastal riparian habitat and is highly likely to use the shaded understory of the riparian corridor in the Project Study Area, which provides adequate canopy and understory cover for nest construction and foraging. However, they are unlikely construct nests in the work footprint outside of the riparian corridor. |

<sup>1</sup> FE/FT – Federal Endangered/Threatened  
SSC – CDFW Species of Special Concern

SE/ST – State Endangered/Threatened  
FP – CDFW Fully Protected Species

FC/SC – Federal or State Candidate  
BCC – Bird of Conservation Concern

Other species identified in the database review or LCP are not likely to occur on the Project Study Area due to the absence of suitable habitat elements or vegetation communities including coastal prairie, or dune habitat, pond habitat, refugia (downed logs, rock outcrops, large burrows, etc.), suitable bat roosts, friable soils, appropriate elevations, etc. Generally, the Project Study Area's overall disturbed nature and regular tilling likely precludes most native flora and fauna.

## **Discussion and Recommendations**

Based on the results of this assessment, riparian habitat is present on the western side of the Project Study Area. This riparian habitat is considered ESHA and the avoidance of impacts within a 50-foot buffer of this riparian habitat is required.

All Project activities are proposed to occur outside the 50-foot riparian setback associated with Pescadero Creek. This habitat is likely to support at least three (3) special status wildlife species described in Table 1, including the federally listed CRLF. While CRLF movements are likely to be restricted to the riparian corridor, CRLF may make overland movements during periods of wet weather. As such, best management practices are provided below to ensure avoidance of any dispersing individuals. Similarly, Allen's hummingbird, and other migratory birds may nest in surrounding habitats, and if present, could be adversely affected during the nesting season.

Incorporation of the following avoidance and minimization measures will ensure that take of these species is completely avoided:

1. **Environmental Awareness Training:** Prior to the start of work, environmental awareness training should be provided to all construction crew. Training will include a description of all biological resources that may be found on or near the Project Study Area, 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 Study Area.
2. **Wildlife Exclusion Fencing (WEF):** At least 14 days prior to the commencement of construction-related activities, CRLF exclusion fencing with exit funnels shall be installed between the riparian corridor and the Project footprint under the direction of a qualified biologist. Following installation, the fence should be inspected weekly by trained construction personnel to monitor and maintain the fence throughout the duration of the Project's ground-disturbing activities.
3. **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 mono-filament netting (erosion control matting) rolled erosion control products, or similar material shall not be used.

4. **Pre-Construction Wildlife Surveys:** Pre-construction surveys for CRLF shall be conducted prior to initiation of project activities within 48 hours of the start of ground disturbance activities. After the Wildlife Exclusion Fence has been properly erected, scoping of any burrows on the site to ascertain the absence of CRLF is recommended in lieu of daily biological monitoring. Surveys are to be conducted by a qualified biologist. If CRLF is detected during the survey, the animal should be allowed to leave the area on its own accord before work commences.
  
5. **Nesting Bird Seasonal Work Window or Surveys:** Construction-related activities (including grubbing or ground disturbance) should be initiated during the non-nesting season from September 1 to January 31 to the extent feasible. If work cannot be initiated during this period, then nesting bird surveys should be performed in suitable nesting habitat within 250 feet of the project footprint prior to the start of activities.

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 feet for songbirds and up to 250 feet for nesting raptors. Surveys are generally valid for 7 to 10 days and should be repeated if there is a lapse in construction-related activities for greater than 7 days during the nesting season.

Please do not hesitate to contact me with any questions.

Sincerely,



Dana Riggs,  
Principal Biologist

Attachments (3): (A) Project Figures; (B) Site Photographs; (C) Observed Species Tables; (D) Database Search Results

## REFERENCES

- Alvarez, J. A. 2004. *Rana aurora draytonii* (California red-legged frog) Microhabitat. Herpetological Review 35:162-163.
- Bulger J. B., J. S. Norman, And R. B. Seymour. 2003. Terrestrial Activity and Conservation of Adult California Red-Legged Frogs *Rana aurora draytonii* In Coastal Forests And Grasslands. Biological Conservation, 110:85.-95.
- Clark, C. and D.E. Mitchell. 2013. Allen's Hummingbird (*Selasphorus sasin*), version 2.0. In The Birds of North America Online (P.G. Rodewald, Ed.). Cornell Lab of Ornithology, Ithaca, New York. [https://www.allaboutbirds.org/guide/Allen's\\_Hummingbird/lifehistory](https://www.allaboutbirds.org/guide/Allen's_Hummingbird/lifehistory) (Last accessed: May 4, 2023.)
- Dahl, T. E. 1990. Wetland losses in the United States, 1978s to 1980s. U.S. Fish and Wildlife Service, Washington, DC.
- 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.
- Hayes, M. P. and M. R. Jennings. 1986. Decline of ranid frog species in western North America: Are bullfrogs (*Rana catesbeiana*) responsible? Journal of Herpetology 20(4):490-509.
- Hayes, M. P. and D. M. Krempels. 1986. Vocal sac variation among frogs of the genus *Rana* from western North America. Copeia 1986(4):927-936.
- Hayes, M. P. and M. R. Tennant. 1985. Diet and feeding behavior of the California red-legged frog *Rana aurora draytonii* (Ranidae). The Southwestern Naturalist 30(4):601-605.
- Jennings, M. R. and M. P. Hayes. 1985. Pre- 1900 overharvest of California red-legged frogs (*Rana aurora draytonii*): The inducement for bullfrog (*Rana catesbeiana*) introduction. Herpetological Review 32(1):94-103.
- Larsen, S.S. 1994. Life history aspects of the San Francisco garter snake at the Millbrae habitat site. Master's Thesis. California State University, Hayward, California. 105 pp.
- Matocq, M. 2003. Dusky-footed Woodrats (*Neotoma fuscipes*) at Hastings: A Research Tradition. Hastings Natural History Reservation. Available online: <http://www.hastingsreserve.org/Woodrats/DFwoodrats.html>
- McGinnis, S.M. 1987. The distribution and feeding habitat requirements of the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*). Final report for the California Department of Fish and Game. Sacramento, California. 13 pp.

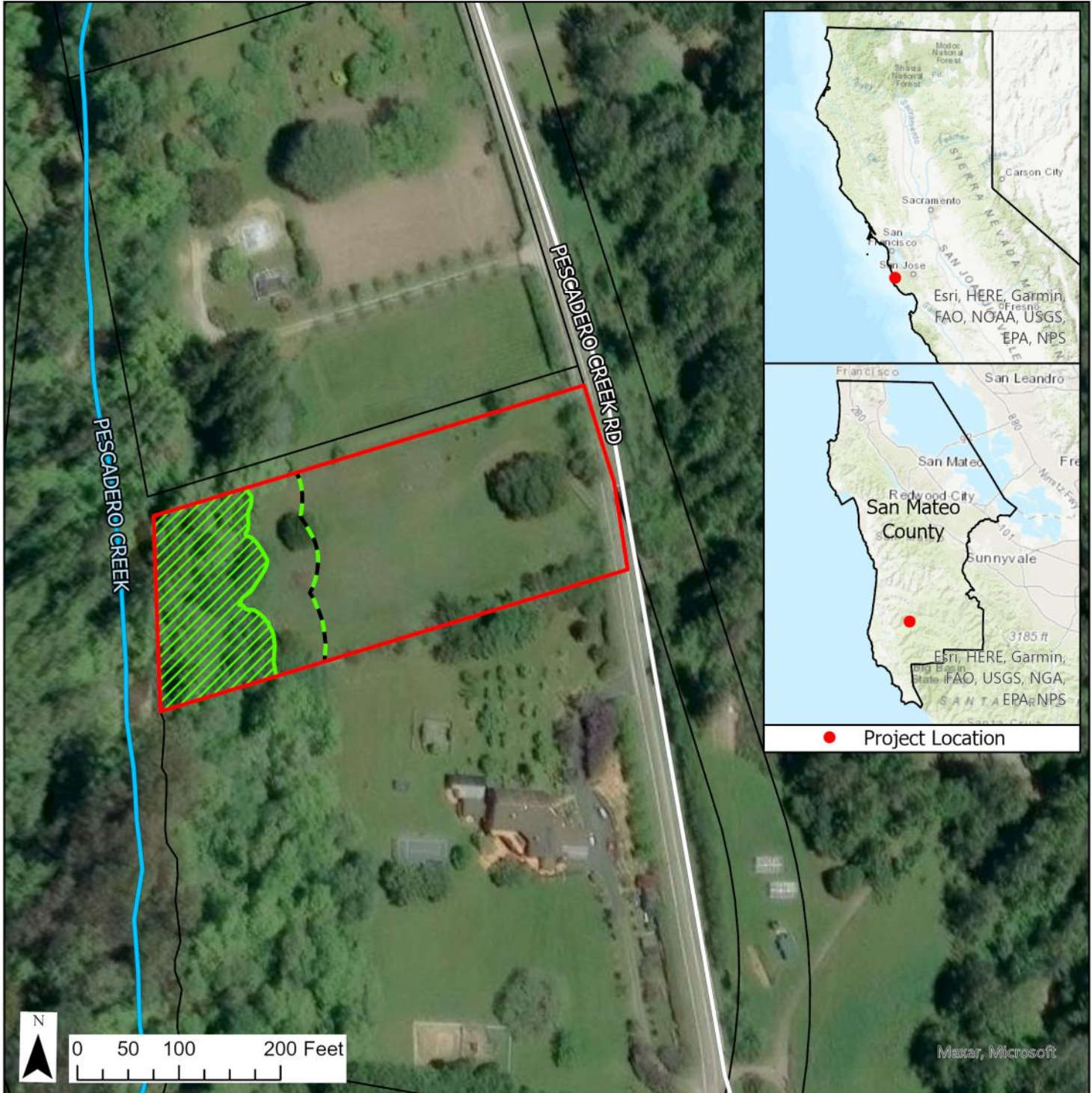
- McGinnis, S. M. 2001. Past and Present Habitats for the San Francisco Garter Snake and California Red-Legged Frog on the Original Cascade Ranch Property, With Additional Comments on Potential Movement Pathways and Suggestions for Critical Habitat Enhancement Measures. Unpublished. January.
- Rathbun, G. B. and T. G. Murphy. 1996. Evaluation of a radio-belt for ranid frogs. *Herpetological Review* 27(4):197-189.
- Rathbun, G.B. and J. Schneider. 2001. Translocation of California red-legged frogs (*Rana aurora draytonii*). *Wildlife Society Bulletin* 29(4): 1300-1303.
- Soulé, M. 1998. *Viable Populations for Conservation*. Cambridge University Press, Great Britain.
- Stebbins, R. C. 2003. *A Field Guide to Western Reptiles and Amphibians*. 3rd Edition, revised. Houghton Mifflin Book Co., Boston. New York, NY.
- Storer, T. I. 1925. A synopsis of the amphibia of California. *University of California Publications in Zoology* 27:1-342.
- Thomson, Robert C., Amber N. Wright, and H. Bradley Shaffer. 2016. *California Amphibian and Reptile Species of Special Concern*. California Department of Fish and Wildlife University Press.
- U. S. Fish and Wildlife Service (USFWS). 1978. Concept plan for waterfowl wintering habitat preservation, Central Valley, California. Region 1, Portland, OR.
- USFWS. 1985. Recovery Plan for the San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*). U.S. Fish and Wildl. Serv., Portland, OR. 77 pp.
- USFWS. 1996. Endangered and threatened wildlife and plants: determination of threatened status for the California red-legged frog. *Federal Register* 61(101):25813-25833. May 23.
- USFWS. 2002. Recovery plan for the California red-legged frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, OR.
- USFWS. 2006. Designation of Critical Habitat for the California Red-Legged Frog, and Special Rule Exemption Associated With Final Listing for Existing Routine Ranching Activities; Final Rule. *Federal Register* 71(71): 19243-19346. April 13.
- USFWS. 2006. San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*) 5-Year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office. September.
- USFWS. 2010. Endangered and Threatened Wildlife and Plants: Revised Designation of Critical Habitat for California Red-legged Frog; Final Rule. *Federal Register*, Vol. 75, No. 51. 12815-12959.

Wright, A. H., and A. A. Wright. 1949. Handbook of frogs and toads of the United States and Canada. Comstock Publishing Company, Ithaca, NY.

## Attachment A. Project Figures

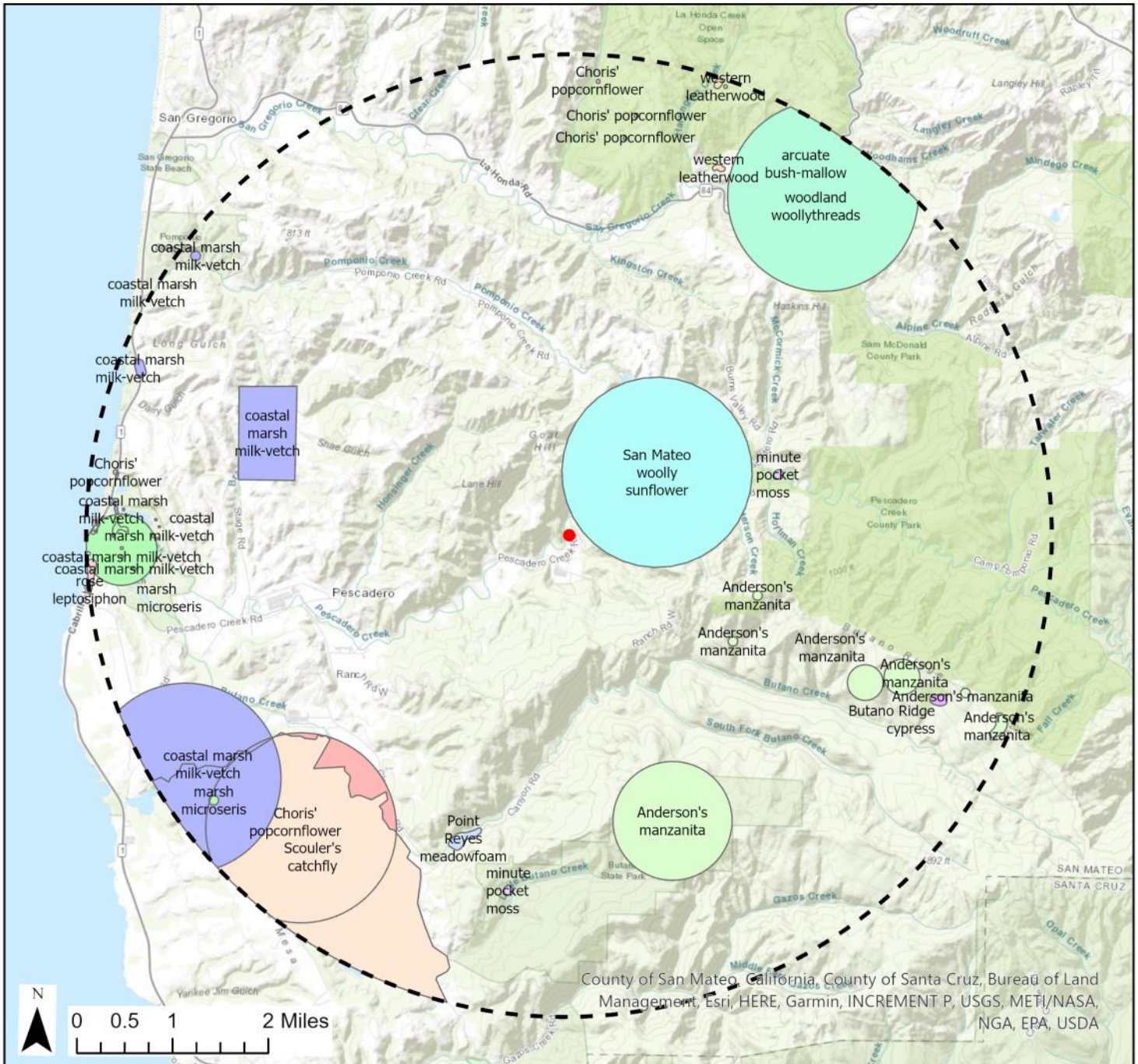
# Figure 1: Location of Project

Pescadero Creek Road, Pescadero, CA (APN 088-090-030)



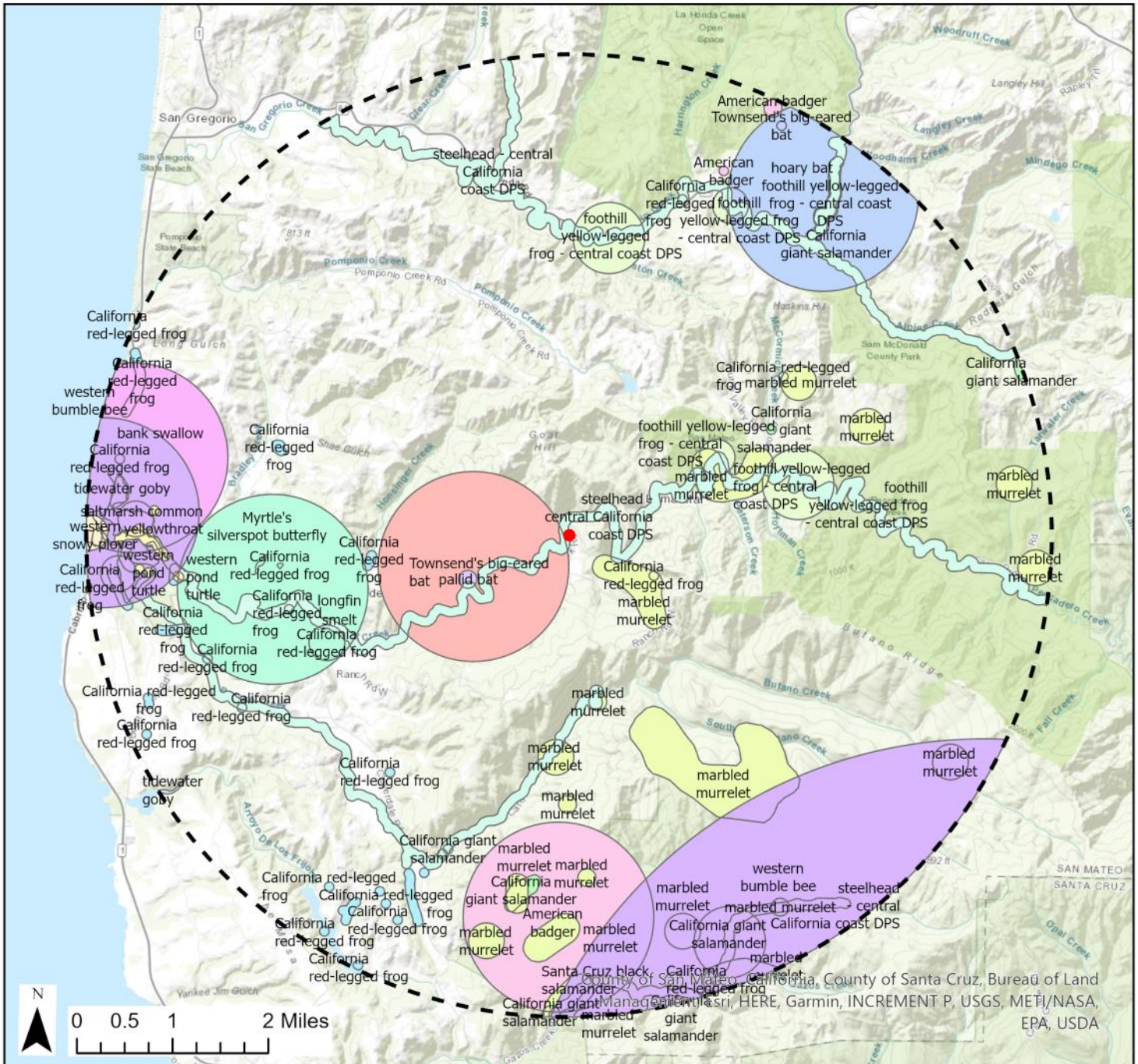
- Study Area
- Riparian Habitat
- Roads
- Parcels
- 50-foot Riparian Buffer
- Streams

**Figure 2: Special Status Plant Species within Five Miles of the Project Site**  
 Pescadero Creek Road, Pescadero, CA (APN 088-090-030)



- Study Area
- ⋯ 5 Miles
- Anderson's manzanita (6)
- Butano Ridge cypress (1)
- Choris' popcornflower (5)
- Point Reyes meadowfoam (1)
- San Mateo woolly sunflower (1)
- Scouler's catchfly (1)
- arcuate bush-mallow (1)
- coastal marsh milk-vetch (6)
- marsh microseris (2)
- minute pocket moss (2)
- perennial goldfields (1)
- rose leptosiphon (1)
- western leatherwood (2)
- woodland woollythreads (1)

**Figure 3: Special Status Wildlife Species within Five Miles of the Project Site**  
 Pescadero Creek Road, Pescadero, CA (APN 088-090-030)



- Study Area
- ⬛ 5 Miles
- American badger (3)
- California giant salamander (8)
- California red-legged frog (30)
- Myrtle's silverspot butterfly (1)
- Santa Cruz black salamander (1)
- Townsend's big-eared bat (2)
- bank swallow (1)
- foothill yellow-legged frog - central coast DPS (6)
- hoary bat (1)
- longfin smelt (1)
- marbled murrelet (19)
- pallid bat (1)
- saltmarsh common yellowthroat (2)
- steelhead - central California coast DPS (3)
- tidewater goby (2)
- western bumble bee (2)
- western pond turtle (1)
- western snowy plover (1)

**Appendix B: Site Photographs**



Photo 1: The riparian corridor of Pescadero Creek within the Project Study Area. Looking south.



Photo 2: The riparian corridor of Pescadero Creek within the Project Study Area. Looking north.



Photo 3: The Project Study Area facing Pescadero Creek. Looking northwest.



Photo 4: The Project Study Area facing Pescadero Creek Road. Looking southeast.



Photo 5: Ruderal grassland in the Project Study Area. Looking northeast.

## Attachment C. Observed Species Tables

Table 2. Observed Plant Species

| Common name                                | Scientific name       | Origin        |
|--|-----------------------|---------------|
|  |                       |               |
| <b>Species Name</b>                        | <b>Common name</b>    | <b>Origin</b> |
| <i>Acer negundo</i>                        | Box elder             | Native        |
| <i>Allium triquetrum</i>                   | Three-cornered garlic | Non-native    |
| <i>Alnus rubra</i>                         | Red alder             | Native        |
| <i>Avena barbata</i>                       | Wild oat              | Invasive      |
| <i>Bromus sp.</i>                          | Brome                 | -             |
| <i>Cerastium sp.</i>                       | Chickweed             | -             |
| <i>Conium maculatum</i>                    | Poison hemlock        | Invasive      |
| <i>Cotoneaster sp.</i>                     | Cotoneaster           | Invasive      |
| <i>Delairea odorata</i>                    | Cape ivy              | Invasive      |
| <i>Equisetum telmateia</i>                 | Giant horsetail       | Native        |
| <i>Erigeron karvinskianus</i>              | Santa Barbara daisy   | Non-native    |
| <i>Eschscholzia californica</i>            | California poppy      | Native        |
| <i>Euonymus sp.</i>                        | Spindle               | Non-native    |
| <i>Fragaria vesca</i>                      | Wild strawberry       | Native        |
| <i>Festuca bromoides</i>                   | Brome fescue          | Non-native    |
| <i>Galium aparine</i>                      | Cleavers              | Native        |
| <i>Geranium dissectum</i>                  | Wild geranium         | Invasive      |
| <i>Helminthotheca echioides</i>            | Bristly oxtongue      | Invasive      |
| <i>Hypochaeris radicata</i>                | Hairy cats ears       | Invasive      |
| <i>Juncus sp.</i>                          | Rushes                | Native        |
| <i>Lamium sp.</i>                          | Dead nettle           | Non-native    |
| <i>Lysimachia arvensis</i>                 | Scarlet pimpernel     | Non-native    |
| <i>Marah fabacean</i>                      | Wild cucumber         | Native        |
| <i>Medicago polymorpha</i>                 | Burr clover           | Invasive      |
| <i>Myosotis sp.</i>                        | Forget-me-not         | Invasive      |
| <i>Pseudotsuga menziesii</i>               | Douglas fir           | Native        |
| <i>Quercus agrifolia</i>                   | Coast live oak        | Native        |
| <i>Quercus parvula</i> var. <i>shrevei</i> | Shreve oak            | Native        |
| <i>Raphanus sativus</i>                    | Wild radish           | Invasive      |
| <i>Rubus parviflorus</i>                   | Thimbleberry          | Native        |
| <i>Rubus ursinus</i>                       | California blackberry | Native        |
| <i>Rumex acetosella</i>                    | Sheep sorrel          | Invasive      |
| <i>Salix lasiolepis</i>                    | Arroyo willow         | Native        |
| <i>Sambucus racemose</i>                   | Red elderberry        | Native        |
| <i>Sanicula crassicaulis</i>               | Pacific sanicle       | Native        |
| <i>Senecio vulgaris</i>                    | Common groundsel      | Invasive      |

|                                   |               |            |
|-----------------------------------|---------------|------------|
| <i>Sequoia sempervirens</i>       | Coast redwood | Native     |
| <i>Sherardia arvensis</i>         | field madder  | Non-native |
| <i>Solanum sp.</i>                | Nightshade    | -          |
| <i>Sonchus oleraceus</i>          | sow thistle   | Non-native |
| <i>Toxicodendron diversilobum</i> | Poison oak    | Native     |

**Table 3. Observed Wildlife Species**

| Common name          | Scientific name               |
|----------------------|-------------------------------|
| <b>Amphibians</b>    |                               |
| Pacific tree frog    | <i>Pseudacris regilla</i>     |
| <b>Birds</b>         |                               |
| California quail     | <i>Callipepla californica</i> |
| Wild turkey          | <i>Meleagris gallopavo</i>    |
| Allen's hummingbird  | <i>Selasphorus sasin</i>      |
| California scrub-jay | <i>Aphelocoma californica</i> |
| Common raven         | <i>Corvus corax</i>           |
| American crow        | <i>Corvus brachyrhynchos</i>  |
| Song sparrow         | <i>Melospiza melodia</i>      |
| Dark-eyed junco      | <i>Junco hyemalis</i>         |
| House finch          | <i>Haemorhous mexicanus</i>   |
| <b>Mammals</b>       |                               |
| Brush rabbit         | <i>Sylvilagus bachmani</i>    |
| Black-tailed deer    | <i>Odocoileus hemionus</i>    |
| <b>Invertebrates</b> |                               |
| Banana slug          | <i>Ariolimax sp.</i>          |

## Attachment D. Database Search Results



# Summary Table Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Query Criteria:** Quad (La Honda (3712233) OR Franklin Point (3712223) OR Big Basin (3712222) OR Mindego Hill (3712232) OR Palo Alto (3712242) OR Woodside (3712243) OR Half Moon Bay (3712244) OR San Gregorio (3712234) OR Pigeon Point (3712224)) AND Taxonomic Group (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

| Name (Scientific/Common)  | CNDDDB 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. |
| <i>Acanthomintha duttonii</i><br>San Mateo thorn-mint           | G1<br>S1     | Endangered<br>Endangered   | Rare Plant Rank - 1B.1<br>SB_UCBG-UC<br>Botanical Garden at Berkeley  | 170<br>600        | 5<br>S:3   | 0                  | 1 | 0 | 1 | 1 | 0 | 2                 | 1               | 2        | 0             | 1       |
| <i>Agrostis blasdalei</i><br>Blasdale's bent grass              | G2G3<br>S2   | None<br>None               | Rare Plant Rank - 1B.2<br>BLM_S-Sensitive<br>SB_UCSC-UC Santa Cruz  | 25<br>35          | 62<br>S:3  | 0                  | 0 | 0 | 0 | 0 | 3 | 1                 | 2               | 3        | 0             | 0       |
| <i>Allium peninsulare var. franciscanum</i><br>Franciscan onion | G4G5T2<br>S2 | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-<br>California/Rancho<br>Santa Ana Botanic<br>Garden                             | 170<br>670        | 25<br>S:11 | 2                  | 2 | 1 | 0 | 0 | 6 | 2                 | 9               | 11       | 0             | 0       |
| <i>Amsinckia lunaris</i><br>bent-flowered fiddleneck            | G3<br>S3     | None<br>None               | Rare Plant Rank - 1B.2<br>BLM_S-Sensitive<br>SB_UCBG-UC<br>Botanical Garden at<br>Berkeley<br>SB_UCSC-UC Santa<br>Cruz    |                   | 93<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Anomobryum julaceum</i><br>slender silver moss               | G5?<br>S2    | None<br>None               | Rare Plant Rank - 4.2   |                   | 13<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Aphyllon robbinsii</i><br>Robbins' broomrape                 | G1<br>S1     | None<br>None               | Rare Plant Rank - 1B.1  | 43<br>43          | 13<br>S:1  | 0                  | 0 | 1 | 0 | 0 | 0 | 0                 | 1               | 1        | 0             | 0       |
| <i>Arctostaphylos andersonii</i><br>Anderson's manzanita        | G2<br>S2     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-<br>California/Rancho<br>Santa Ana Botanic<br>Garden<br>SB_UCSC-UC Santa<br>Cruz | 525<br>2,400      | 64<br>S:26 | 2                  | 8 | 4 | 3 | 0 | 9 | 12                | 14              | 26       | 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. |
| <i>Arctostaphylos glutinosa</i><br>Schreiber's manzanita                              | G1<br>S1     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCSC-UC Santa Cruz<br>SB_USDA-US Dept of Agriculture  | 1,800<br>2,230    | 7<br>S:2   | 1                  | 0 | 0 | 1 | 0 | 0 | 1                 | 1               | 2        | 0             | 0       |
| <i>Arctostaphylos ohloneana</i><br>Ohlone manzanita                                   | G1<br>S1     | None<br>None               | Rare Plant Rank - 1B.1<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_USDA-US Dept of Agriculture   | 1,700<br>1,700    | 4<br>S:1   | 0                  | 0 | 0 | 0 | 0 | 1 | 0                 | 1               | 1        | 0             | 0       |
| <i>Arctostaphylos regismontana</i><br>Kings Mountain manzanita                        | G2<br>S2     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_UCSC-UC Santa Cruz   | 586<br>2,300      | 17<br>S:15 | 1                  | 3 | 3 | 3 | 0 | 5 | 7                 | 8               | 15       | 0             | 0       |
| <i>Arctostaphylos silvicola</i><br>Bonny Doon manzanita                               | G1<br>S1     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden   | 900<br>900        | 16<br>S:1  | 1                  | 0 | 0 | 0 | 0 | 0 | 0                 | 1               | 1        | 0             | 0       |
| <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i><br>coastal marsh milk-vetch | G2T2<br>S2   | None<br>None               | Rare Plant Rank - 1B.2<br>BLM_S-Sensitive<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_SBBG-Santa Barbara Botanic Garden<br>SB_UCBG-UC Botanical Garden at Berkeley | 10<br>500         | 24<br>S:10 | 0                  | 5 | 1 | 0 | 1 | 3 | 5                 | 5               | 9        | 1             | 0       |
| <i>Calyptridium parryi</i> var. <i>hesseae</i><br>Santa Cruz Mountains pussypaws      | G3G4T2<br>S2 | None<br>None               | Rare Plant Rank - 1B.1<br>BLM_S-Sensitive<br>SB_UCBG-UC Botanical Garden at Berkeley  | 2,127<br>2,300    | 12<br>S:2  | 0                  | 0 | 1 | 0 | 0 | 1 | 1                 | 1               | 2        | 0             | 0       |



# Summary Table Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



| Name (Scientific/Common)  | CNDDDB 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. |
| <i>Centromadia parryi ssp. congdonii</i><br>Congdon's tarplant        | G3T2<br>S2   | None<br>None               | Rare Plant Rank - 1B.1<br>BLM_S-Sensitive<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden       | 2<br>2            | 96<br>S:1  | 0                  | 0 | 1 | 0 | 0 | 0  | 1                 | 0               | 1        | 0             | 0       |
| <i>Chorizanthe pungens var. hartwegiana</i><br>Ben Lomond spineflower | G2T1<br>S1   | Endangered<br>None         | Rare Plant Rank - 1B.1<br>SB_UCSC-UC Santa Cruz  | 800<br>1,160      | 18<br>S:3  | 0                  | 1 | 0 | 0 | 0 | 2  | 2                 | 1               | 3        | 0             | 0       |
| <i>Cirsium andrewsii</i><br>Franciscan thistle                        | G3<br>S3     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden                          | 80<br>80          | 31<br>S:1  | 0                  | 0 | 0 | 0 | 1 | 0  | 1                 | 0               | 0        | 1             | 0       |
| <i>Cirsium fontinale var. fontinale</i><br>fountain thistle           | G2T1<br>S1   | Endangered<br>Endangered   | Rare Plant Rank - 1B.1<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden                          | 150<br>600        | 5<br>S:4   | 0                  | 0 | 3 | 0 | 1 | 0  | 2                 | 2               | 3        | 1             | 0       |
| <i>Cirsium praeteriens</i><br>lost thistle                            | GX<br>SX     | None<br>None               | Rare Plant Rank - 1A   | 50<br>50          | 1<br>S:1   | 0                  | 0 | 0 | 0 | 1 | 0  | 1                 | 0               | 0        | 0             | 1       |
| <i>Clarkia concinna ssp. automixa</i><br>Santa Clara red ribbons      | G5?T3<br>S3  | None<br>None               | Rare Plant Rank - 4.3<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden                           | 1,500<br>2,750    | 20<br>S:2  | 0                  | 0 | 0 | 0 | 0 | 2  | 2                 | 0               | 2        | 0             | 0       |
| <i>Collinsia corymbosa</i><br>round-headed collinsia                  | G1<br>S1     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden                          |                   | 13<br>S:1  | 0                  | 0 | 0 | 0 | 1 | 0  | 1                 | 0               | 0        | 0             | 1       |
| <i>Collinsia multicolor</i><br>San Francisco collinsia                | G2<br>S2     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCSC-UC Santa Cruz | 100<br>560        | 36<br>S:3  | 0                  | 2 | 0 | 0 | 0 | 1  | 1                 | 2               | 3        | 0             | 0       |
| <i>Dirca occidentalis</i><br>western leatherwood                      | G2<br>S2     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden                          | 150<br>2,165      | 90<br>S:26 | 6                  | 7 | 1 | 0 | 0 | 12 | 3                 | 23              | 26       | 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. |
| <i>Eriophyllum latilobum</i><br>San Mateo woolly sunflower          | G1<br>S1    | Endangered<br>Endangered   | Rare Plant Rank - 1B.1<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden                                | 2,000<br>2,000    | 8<br>S:2   | 0                  | 0 | 0 | 0 | 1 | 1 | 2                 | 0               | 1        | 1             | 0       |
| <i>Eryngium aristulatum var. hooveri</i><br>Hoover's button-celery  | G5T1<br>S1  | None<br>None               | Rare Plant Rank - 1B.1<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden                                | 80<br>80          | 16<br>S:1  | 0                  | 0 | 0 | 0 | 1 | 0 | 1                 | 0               | 0        | 1             | 0       |
| <i>Eryngium jepsonii</i><br>Jepson's coyote-thistle                 | G2<br>S2    | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden                                | 525<br>625        | 19<br>S:2  | 0                  | 0 | 0 | 0 | 0 | 2 | 1                 | 1               | 2        | 0             | 0       |
| <i>Erysimum ammophilum</i><br>sand-loving wallflower                | G2<br>S2    | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CRES-San Diego Zoo CRES Native Gene Seed Bank<br>SB_SBBG-Santa Barbara Botanic Garden | 100<br>100        | 58<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Fissidens pauperculus</i><br>minute pocket moss                  | G3?<br>S2   | None<br>None               | Rare Plant Rank - 1B.2<br>USFS_S-Sensitive   | 250<br>300        | 22<br>S:3  | 0                  | 0 | 0 | 0 | 0 | 3 | 1                 | 2               | 3        | 0             | 0       |
| <i>Fritillaria liliacea</i><br>fragrant fritillary                  | G2<br>S2    | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>USFS_S-Sensitive            | 33<br>720         | 82<br>S:5  | 0                  | 4 | 0 | 0 | 0 | 1 | 2                 | 3               | 5        | 0             | 0       |
| <i>Grimmia torenii</i><br>Toren's grimmia                           | G2<br>S2    | None<br>None               | Rare Plant Rank - 1B.3<br>BLM_S-Sensitive  | 1,970<br>2,325    | 13<br>S:4  | 0                  | 0 | 0 | 0 | 0 | 4 | 1                 | 3               | 4        | 0             | 0       |
| <i>Grimmia vaginulata</i><br>vaginulate grimmia                     | G3<br>S1    | None<br>None               | Rare Plant Rank - 1B.1<br>BLM_S-Sensitive  | 2,250<br>2,250    | 2<br>S:1   | 0                  | 0 | 0 | 0 | 0 | 1 | 0                 | 1               | 1        | 0             | 0       |
| <i>Hesper-evax sparsiflora var. brevifolia</i><br>short-leaved evax | G4T3<br>S3  | None<br>None               | Rare Plant Rank - 1B.2<br>BLM_S-Sensitive<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden             | 850<br>850        | 72<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 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. |
| <i>Hesperocyparis abramsiana</i> var. <i>abramsiana</i><br>Santa Cruz cypress    | G1T1<br>S1   | Threatened<br>Endangered   | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCSC-UC Santa Cruz                     | 1,000<br>2,000    | 7<br>S:2   | 0                  | 1 | 0 | 0 | 0 | 1 | 0                 | 2               | 2        | 0             | 0       |
| <i>Hesperocyparis abramsiana</i> var. <i>butanoensis</i><br>Butano Ridge cypress | G1T1<br>S1   | Threatened<br>Endangered   | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden  | 1,400<br>1,400    | 1<br>S:1   | 0                  | 0 | 0 | 0 | 0 | 1 | 0                 | 1               | 1        | 0             | 0       |
| <i>Hesperolinon congestum</i><br>Marin western flax                              | G1<br>S1     | Threatened<br>Threatened   | Rare Plant Rank - 1B.1<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCBG-UC Botanical Garden at Berkeley   | 200<br>700        | 27<br>S:5  | 0                  | 3 | 1 | 0 | 1 | 0 | 2                 | 3               | 4        | 1             | 0       |
| <i>Horkelia cuneata</i> var. <i>sericea</i><br>Kellogg's horkelia                | G4T1?<br>S1? | None<br>None               | Rare Plant Rank - 1B.1<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCSC-UC Santa Cruz<br>USFS_S-Sensitive | 600<br>600        | 58<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Lasthenia californica</i> ssp. <i>macrantha</i><br>perennial goldfields       | G3T2<br>S2   | None<br>None               | Rare Plant Rank - 1B.2<br>BLM_S-Sensitive<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden                           | 25<br>50          | 59<br>S:5  | 0                  | 2 | 1 | 2 | 0 | 0 | 0                 | 5               | 5        | 0             | 0       |
| <i>Legenere limosa</i><br>legenere   | G2<br>S2     | None<br>None               | Rare Plant Rank - 1B.1<br>BLM_S-Sensitive<br>SB_UCBG-UC Botanical Garden at Berkeley   | 1,200<br>1,200    | 83<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Leptosiphon rosaceus</i><br>rose leptosiphon                                  | G1<br>S1     | None<br>None               | Rare Plant Rank - 1B.1<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden  | 70<br>70          | 31<br>S:3  | 0                  | 1 | 0 | 0 | 2 | 0 | 2                 | 1               | 1        | 2             | 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. |
| <i>Lessingia arachnoidea</i><br>Crystal Springs lessingia                | G2<br>S2    | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden  | 440<br>550        | 11<br>S:2  | 0                  | 0 | 1 | 0 | 0 | 1  | 1                 | 1               | 2        | 0             | 0       |
| <i>Limnanthes douglasii ssp. sulphurea</i><br>Point Reyes meadowfoam     | G4T1<br>S1  | None<br>Endangered         | Rare Plant Rank - 1B.2<br>SB_UCBG-UC Botanical Garden at Berkeley  | 240<br>240        | 12<br>S:1  | 0                  | 0 | 1 | 0 | 0 | 0  | 1                 | 0               | 1        | 0             | 0       |
| <i>Malacothamnus arcuatus</i><br>arcuate bush-mallow                     | G2Q<br>S2   | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden  | 300<br>2,400      | 34<br>S:14 | 1                  | 2 | 1 | 1 | 0 | 9  | 3                 | 11              | 14       | 0             | 0       |
| <i>Microseris paludosa</i><br>marsh microseris                           | G2<br>S2    | None<br>None               | Rare Plant Rank - 1B.2<br>BLM_S-Sensitive<br>SB_SBBG-Santa Barbara Botanic Garden<br>SB_UCSC-UC Santa Cruz                       | 40<br>300         | 38<br>S:3  | 1                  | 0 | 0 | 0 | 2 | 0  | 2                 | 1               | 1        | 1             | 1       |
| <i>Monolopia gracilens</i><br>woodland woollythreads                     | G3<br>S3    | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden  | 250<br>2,500      | 94<br>S:16 | 0                  | 3 | 1 | 0 | 1 | 11 | 6                 | 10              | 15       | 1             | 0       |
| <i>Orthotrichum kellmanii</i><br>Kellman's bristle moss                  | G1<br>S1    | None<br>None               | Rare Plant Rank - 1B.2<br>USFS_S-Sensitive   | 2,133<br>2,247    | 4<br>S:2   | 0                  | 0 | 0 | 0 | 0 | 2  | 0                 | 2               | 2        | 0             | 0       |
| <i>Pedicularis dudleyi</i><br>Dudley's lousewort                         | G2<br>S2    | None<br>Rare               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCSC-UC Santa Cruz<br>USFS_S-Sensitive | 500<br>500        | 7<br>S:2   | 0                  | 1 | 0 | 0 | 0 | 1  | 1                 | 1               | 2        | 0             | 0       |
| <i>Penstemon rattanii var. kleei</i><br>Santa Cruz Mountains beardtongue | G4T2<br>S2  | None<br>None               | Rare Plant Rank - 1B.2<br>SB_UCSC-UC Santa Cruz  | 2,000<br>2,000    | 6<br>S:1   | 0                  | 0 | 0 | 0 | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Pentachaeta bellidiflora</i><br>white-rayed pentachaeta               | G1<br>S1    | Endangered<br>Endangered   | Rare Plant Rank - 1B.1<br>SB_UCBG-UC Botanical Garden at Berkeley  | 520<br>2,000      | 14<br>S:5  | 1                  | 0 | 0 | 0 | 2 | 2  | 5                 | 0               | 3        | 2             | 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. |
| <i>Pinus radiata</i><br>Monterey pine                                      | G1<br>S1       | None<br>None               | Rare Plant Rank - 1B.1<br>IUCN_EN-Endangered<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCSC-UC Santa Cruz      | 400<br>400        | 5<br>S:1   | 1                  | 0 | 0 | 0 | 0 | 0  | 0                 | 1               | 1        | 0             | 0       |
| <i>Piperia candida</i><br>white-flowered rein orchid                       | G3?<br>S3      | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden   | 500<br>1,300      | 222<br>S:4 | 0                  | 0 | 0 | 0 | 0 | 4  | 2                 | 2               | 4        | 0             | 0       |
| <i>Plagiobothrys chorisianus var. chorisianus</i><br>Choris' popcornflower | G3T1Q<br>S1    | None<br>None               | Rare Plant Rank - 1B.2<br>BLM_S-Sensitive<br>SB_UCSC-UC Santa Cruz  | 25<br>2,300       | 42<br>S:25 | 2                  | 7 | 4 | 0 | 0 | 12 | 10                | 15              | 25       | 0             | 0       |
| <i>Plagiobothrys diffusus</i><br>San Francisco popcornflower               | G1Q<br>S1      | None<br>Endangered         | Rare Plant Rank - 1B.1<br>SB_UCSC-UC Santa Cruz   | 160<br>160        | 17<br>S:1  | 0                  | 0 | 1 | 0 | 0 | 0  | 1                 | 0               | 1        | 0             | 0       |
| <i>Sagittaria sanfordii</i><br>Sanford's arrowhead                         | G3<br>S3       | None<br>None               | Rare Plant Rank - 1B.2<br>BLM_S-Sensitive   | 185<br>185        | 143<br>S:1 | 0                  | 0 | 0 | 0 | 0 | 1  | 0                 | 1               | 1        | 0             | 0       |
| <i>Senecio aphanactis</i><br>chaparral ragwort                             | G3<br>S2       | None<br>None               | Rare Plant Rank - 2B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_CRES-San Diego Zoo CRES Native Gene Seed Bank | 640<br>1,200      | 98<br>S:2  | 0                  | 0 | 0 | 0 | 0 | 2  | 2                 | 0               | 2        | 0             | 0       |
| <i>Silene scouleri ssp. scouleri</i><br>Scouler's catchfly                 | G5T4T5<br>S2S3 | None<br>None               | Rare Plant Rank - 2B.2  |                   | 23<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Silene verecunda ssp. verecunda</i><br>San Francisco campion            | G5T1<br>S1     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCSC-UC Santa Cruz                            | 600<br>600        | 20<br>S:1  | 0                  | 0 | 0 | 0 | 1 | 0  | 1                 | 0               | 0        | 1             | 0       |



# Summary Table Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



| Name (Scientific/Common)   | CNDDDB 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. |
| <i>Stebbinsoseris decipiens</i><br>Santa Cruz microseris             | G2<br>S2     | None<br>None               | Rare Plant Rank - 1B.2<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCSC-UC Santa Cruz   | 875<br>875        | 19<br>S:2  | 0                  | 0 | 0 | 0 | 0 | 2 | 2                 | 0               | 2        | 0             | 0       |
| <i>Stuckenia filiformis ssp. alpina</i><br>northern slender pondweed | G5T5<br>S2S3 | None<br>None               | Rare Plant Rank - 2B.2   | 50<br>50          | 21<br>S:2  | 0                  | 0 | 0 | 0 | 0 | 2 | 2                 | 0               | 2        | 0             | 0       |
| <i>Trifolium amoenum</i><br>two-fork clover                          | G1<br>S1     | Endangered<br>None         | Rare Plant Rank - 1B.1<br>SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden<br>SB_UCBG-UC Botanical Garden at Berkeley<br>SB_USDA-US Dept of Agriculture |                   | 26<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Trifolium buckwestiorum</i><br>Santa Cruz clover                  | G2<br>S2     | None<br>None               | Rare Plant Rank - 1B.1<br>BLM_S-Sensitive<br>SB_SBBG-Santa Barbara Botanic Garden<br>SB_UCSC-UC Santa Cruz<br>SB_USDA-US Dept of Agriculture                     |                   | 64<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Trifolium polyodon</i><br>Pacific Grove clover                    | G1<br>S1     | None<br>Rare               | Rare Plant Rank - 1B.1<br>BLM_S-Sensitive<br>SB_USDA-US Dept of Agriculture  | 870<br>870        | 21<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Usnea longissima</i><br>Methuselah's beard lichen                 | G4<br>S4     | None<br>None               | Rare Plant Rank - 4.2<br>BLM_S-Sensitive   | 590<br>2,040      | 206<br>S:2 | 0                  | 0 | 0 | 0 | 2 | 0 | 2                 | 0               | 0        | 1             | 1       |



# Summary Table Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Query Criteria:** Quad (La Honda (3712233) OR Franklin Point (3712223) OR Big Basin (3712222) OR Mindego Hill (3712232) OR Palo Alto (3712242) OR Woodside (3712243) OR Half Moon Bay (3712244) OR San Gregorio (3712234) OR Pigeon Point (3712224)) AND Taxonomic Group (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. |
| <i>Acipenser medirostris</i> pop. 1<br>green sturgeon - southern DPS                          | G2T1<br>S1   | Threatened<br>None         | AFS_VU-Vulnerable<br>CDFW_SSC-Species of Special Concern<br>IUCN_EN-Endangered   | 0<br>0            | 14<br>S:1   | 0                  | 1 | 0 | 0 | 0 | 0  | 0                 | 1               | 1        | 0             | 0       |
| <i>Ambystoma californiense</i> pop. 1<br>California tiger salamander - central California DPS | G2G3T3<br>S3 | Threatened<br>Threatened   | CDFW_WL-Watch List<br>IUCN_VU-Vulnerable   | 40<br>561         | 1328<br>S:5 | 0                  | 1 | 0 | 0 | 3 | 1  | 4                 | 1               | 2        | 3             | 0       |
| <i>Aneides niger</i><br>Santa Cruz black salamander   | G3<br>S3     | None<br>None               | CDFW_SSC-Species of Special Concern  | 49<br>2,300       | 78<br>S:16  | 0                  | 0 | 0 | 0 | 0 | 16 | 11                | 5               | 16       | 0             | 0       |
| <i>Antrozous pallidus</i><br>pallid bat   | G4<br>S3     | None<br>None               | BLM_S-Sensitive<br>CDFW_SSC-Species of Special Concern<br>IUCN_LC-Least Concern<br>USFS_S-Sensitive                        | 70<br>420         | 420<br>S:3  | 0                  | 0 | 0 | 0 | 0 | 3  | 3                 | 0               | 3        | 0             | 0       |
| <i>Ardea herodias</i><br>great blue heron   | G5<br>S4     | None<br>None               | CDF_S-Sensitive<br>IUCN_LC-Least Concern   | 5<br>5            | 156<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Asio otus</i><br>long-eared owl  | G5<br>S3?    | None<br>None               | CDFW_SSC-Species of Special Concern<br>IUCN_LC-Least Concern<br>USFWS_BCC-Birds of Conservation Concern                    | 2,000<br>2,000    | 56<br>S:1   | 0                  | 0 | 0 | 0 | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Athene cucicularia</i><br>burrowing owl  | G4<br>S2     | None<br>None               | BLM_S-Sensitive<br>CDFW_SSC-Species of Special Concern<br>IUCN_LC-Least Concern<br>USFWS_BCC-Birds of Conservation Concern | 713<br>2,253      | 2057<br>S:3 | 0                  | 0 | 0 | 0 | 0 | 3  | 0                 | 3               | 3        | 0             | 0       |
| <i>Bombus caliginosus</i><br>obscure bumble bee   | G2G3<br>S1S2 | None<br>None               | IUCN_VU-Vulnerable   | 40<br>500         | 181<br>S:5  | 0                  | 0 | 0 | 0 | 0 | 5  | 5                 | 0               | 5        | 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. |
| <i>Bombus crotchii</i><br>Crotch's bumble bee   | G2<br>S2      | None<br>Candidate Endangered | IUCN_EN-Endangered  | 100<br>100        | 437<br>S:1  | 0                  | 0 | 0 | 0 | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Bombus occidentalis</i><br>western bumble bee  | G3<br>S1      | None<br>Candidate Endangered | IUCN_VU-Vulnerable<br>USFS_S-Sensitive  | 15<br>400         | 306<br>S:8  | 0                  | 0 | 0 | 0 | 0 | 8  | 8                 | 0               | 8        | 0             | 0       |
| <i>Brachyramphus marmoratus</i><br>marbled murrelet                                       | G3<br>S2      | Threatened<br>Endangered     | CDF_S-Sensitive<br>IUCN_EN-Endangered   | 200<br>1,800      | 110<br>S:36 | 0                  | 1 | 0 | 0 | 0 | 35 | 22                | 14              | 36       | 0             | 0       |
| <i>Calicina minor</i><br>Edgewood blind harvestman  | G1<br>S1      | None<br>None                 |   | 560<br>560        | 2<br>S:1    | 0                  | 0 | 0 | 0 | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Charadrius nivosus nivosus</i><br>western snowy plover                                 | G3T3<br>S3    | Threatened<br>None           | CDFW_SSC-Species of Special Concern   | 0<br>17           | 140<br>S:5  | 1                  | 1 | 0 | 0 | 2 | 1  | 3                 | 2               | 3        | 1             | 1       |
| <i>Corynorhinus townsendii</i><br>Townsend's big-eared bat                                | G4<br>S2      | None<br>None                 | BLM_S-Sensitive<br>CDFW_SSC-Species of Special Concern<br>IUCN_LC-Least Concern<br>USFS_S-Sensitive                         | 30<br>2,250       | 635<br>S:12 | 0                  | 1 | 1 | 0 | 0 | 10 | 7                 | 5               | 12       | 0             | 0       |
| <i>Coturnicops noveboracensis</i><br>yellow rail  | G4<br>S2      | None<br>None                 | CDFW_SSC-Species of Special Concern<br>IUCN_LC-Least Concern<br>USFS_S-Sensitive<br>USFWS_BCC-Birds of Conservation Concern | 8<br>18           | 45<br>S:3   | 0                  | 0 | 0 | 0 | 0 | 3  | 3                 | 0               | 3        | 0             | 0       |
| <i>Cypseloides niger</i><br>black swift   | G4<br>S3      | None<br>None                 | CDFW_SSC-Species of Special Concern<br>IUCN_VU-Vulnerable<br>USFWS_BCC-Birds of Conservation Concern                        | 540<br>540        | 46<br>S:1   | 0                  | 0 | 0 | 0 | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Danaus plexippus plexippus pop. 1</i><br>monarch - California overwintering population | G4T1T2Q<br>S2 | Candidate<br>None            | IUCN_EN-Endangered<br>USFS_S-Sensitive  | 40<br>200         | 400<br>S:9  | 0                  | 4 | 2 | 0 | 1 | 2  | 8                 | 1               | 8        | 1             | 0       |
| <i>Dicamptodon ensatus</i><br>California giant salamander                                 | G2G3<br>S2S3  | None<br>None                 | CDFW_SSC-Species of Special Concern<br>IUCN_NT-Near Threatened  | 80<br>2,400       | 234<br>S:30 | 1                  | 1 | 0 | 0 | 0 | 28 | 17                | 13              | 30       | 0             | 0       |
| <i>Dipodomys venustus venustus</i><br>Santa Cruz kangaroo rat                             | G4T1<br>S1    | None<br>None                 |   | 20<br>600         | 29<br>S:3   | 0                  | 0 | 0 | 0 | 3 | 0  | 3                 | 0               | 0        | 3             | 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. |
| <i>Emys marmorata</i><br>western pond turtle                         | G3G4<br>S3   | Proposed<br>Threatened<br>None | BLM_S-Sensitive<br>CDFW_SSC-Species of Special Concern<br>IUCN_VU-Vulnerable<br>USFS_S-Sensitive           | 21<br>949         | 1559<br>S:12 | 1                  | 5 | 2 | 0 | 1 | 3 | 3                 | 9               | 11       | 1             | 0       |
| <i>Eucyclogobius newberryi</i><br>tidewater goby                     | G3<br>S3     | Endangered<br>None             | AFS_EN-Endangered<br>CDFW_SSC-Species of Special Concern<br>IUCN_NT-Near Threatened                        | 15<br>20          | 127<br>S:3   | 0                  | 2 | 0 | 0 | 0 | 1 | 3                 | 0               | 3        | 0             | 0       |
| <i>Eumetopias jubatus</i><br>Steller sea lion                        | G3<br>S2     | Delisted<br>None               | IUCN_NT-Near Threatened<br>MMC_SSC-Species of Special Concern  | 15<br>15          | 38<br>S:1    | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Euphydryas editha bayensis</i><br>Bay checkerspot butterfly       | G5T1<br>S3   | Threatened<br>None             |  | 500<br>640        | 30<br>S:3    | 0                  | 1 | 0 | 0 | 2 | 0 | 2                 | 1               | 1        | 1             | 1       |
| <i>Falco peregrinus anatum</i><br>American peregrine falcon          | G4T4<br>S3S4 | Delisted<br>Delisted           | CDF_S-Sensitive  | 1,871<br>1,871    | 75<br>S:1    | 0                  | 0 | 0 | 0 | 0 | 1 | 0                 | 1               | 1        | 0             | 0       |
| <i>Geothlypis trichas sinuosa</i><br>saltmarsh common yellowthroat   | G5T3<br>S3   | None<br>None                   | CDFW_SSC-Species of Special Concern<br>USFWS_BCC-Birds of Conservation Concern                             | 4<br>360          | 114<br>S:11  | 1                  | 2 | 2 | 0 | 0 | 6 | 10                | 1               | 11       | 0             | 0       |
| <i>Haliaeetus leucocephalus</i><br>bald eagle                        | G5<br>S3     | Delisted<br>Endangered         | BLM_S-Sensitive<br>CDF_S-Sensitive<br>CDFW_FP-Fully Protected<br>IUCN_LC-Least Concern<br>USFS_S-Sensitive | 430<br>430        | 333<br>S:1   | 0                  | 0 | 1 | 0 | 0 | 0 | 0                 | 1               | 1        | 0             | 0       |
| <i>Hydrochara rickseckeri</i><br>Ricksecker's water scavenger beetle | G2?<br>S2?   | None<br>None                   |  | 280<br>280        | 13<br>S:1    | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 0             | 0       |
| <i>Lasiurus cinereus</i><br>hoary bat                                | G3G4<br>S4   | None<br>None                   | IUCN_LC-Least Concern  |                   | 238<br>S:6   | 0                  | 0 | 0 | 0 | 0 | 6 | 6                 | 0               | 6        | 0             | 0       |
| <i>Laterallus jamaicensis coturniculus</i><br>California black rail  | G3T1<br>S2   | None<br>Threatened             | BLM_S-Sensitive<br>CDFW_FP-Fully Protected<br>IUCN_EN-Endangered   | 5<br>5            | 304<br>S:1   | 0                  | 1 | 0 | 0 | 0 | 0 | 0                 | 1               | 1        | 0             | 0       |
| <i>Linderiella occidentalis</i><br>California linderiella            | G2G3<br>S2S3 | None<br>None                   | IUCN_NT-Near Threatened  | 110<br>110        | 508<br>S:1   | 0                  | 0 | 0 | 0 | 0 | 1 | 1                 | 0               | 1        | 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. |
| <i>Margaritifera falcata</i><br>western pearlshell                                    | G5<br>S1S2     | None<br>None               | IUCN_NT-Near Threatened  | 50<br>50          | 78<br>S:1     | 0                  | 0  | 0  | 0  | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Melospiza melodia pusillula</i><br>Alameda song sparrow                            | G5T2T3<br>S2   | None<br>None               | CDFW_SSC-Species of Special Concern<br>USFWS_BCC-Birds of Conservation Concern | 4<br>70           | 38<br>S:6     | 0                  | 3  | 0  | 0  | 0 | 3  | 3                 | 3               | 6        | 0             | 0       |
| <i>Microcina edgewoodensis</i><br>Edgewood Park micro-blind harvestman                | G1<br>S1       | None<br>None               |  | 600<br>600        | 1<br>S:1      | 0                  | 0  | 0  | 0  | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Neotoma fuscipes annectens</i><br>San Francisco dusky-footed woodrat               | G5T2T3<br>S2S3 | None<br>None               | CDFW_SSC-Species of Special Concern  | 215<br>460        | 42<br>S:5     | 0                  | 2  | 2  | 0  | 0 | 1  | 1                 | 4               | 5        | 0             | 0       |
| <i>Oncorhynchus kisutch pop. 4</i><br>coho salmon - central California coast ESU      | G5T2Q<br>S2    | Endangered<br>Endangered   | AFS_EN-Endangered  | 40<br>400         | 23<br>S:2     | 0                  | 0  | 1  | 1  | 0 | 0  | 2                 | 0               | 2        | 0             | 0       |
| <i>Oncorhynchus mykiss irideus pop. 8</i><br>steelhead - central California coast DPS | G5T3Q<br>S3    | Threatened<br>None         | AFS_TH-Threatened<br>CDFW_SSC-Species of Special Concern                       | 40<br>1,200       | 44<br>S:9     | 0                  | 2  | 0  | 0  | 0 | 7  | 7                 | 2               | 9        | 0             | 0       |
| <i>Rallus obsoletus obsoletus</i><br>California Ridgway's rail                        | G3T1<br>S2     | Endangered<br>Endangered   | CDFW_FP-Fully Protected  | 1<br>4            | 99<br>S:3     | 1                  | 1  | 1  | 0  | 0 | 0  | 0                 | 3               | 3        | 0             | 0       |
| <i>Rana boylei pop. 4</i><br>foothill yellow-legged frog - central coast DPS          | G3T2<br>S2     | Threatened<br>Endangered   | BLM_S-Sensitive<br>USFS_S-Sensitive  | 80<br>1,654       | 181<br>S:15   | 0                  | 1  | 0  | 0  | 6 | 8  | 15                | 0               | 9        | 2             | 4       |
| <i>Rana draytonii</i><br>California red-legged frog                                   | G2G3<br>S2S3   | Threatened<br>None         | CDFW_SSC-Species of Special Concern<br>IUCN_VU-Vulnerable                      | 10<br>2,347       | 1768<br>S:124 | 14                 | 35 | 13 | 21 | 2 | 39 | 36                | 88              | 122      | 1             | 1       |
| <i>Reithrodontomys raviventris</i><br>salt-marsh harvest mouse                        | G1G2<br>S3     | Endangered<br>Endangered   | CDFW_FP-Fully Protected<br>IUCN_EN-Endangered                                  | 0<br>0            | 151<br>S:3    | 0                  | 1  | 2  | 0  | 0 | 0  | 3                 | 0               | 3        | 0             | 0       |
| <i>Riparia riparia</i><br>bank swallow  | G5<br>S3       | None<br>Threatened         | BLM_S-Sensitive<br>IUCN_LC-Least Concern                                       |                   | 299<br>S:1    | 0                  | 0  | 0  | 0  | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Sorex vagrans halicoetes</i><br>salt-marsh wandering shrew                         | G5T1<br>S1     | None<br>None               | CDFW_SSC-Species of Special Concern  | 2<br>2            | 12<br>S:1     | 0                  | 0  | 0  | 0  | 0 | 1  | 1                 | 0               | 1        | 0             | 0       |
| <i>Speyeria adiastrae adiastrae</i><br>unsilvered fritillary                          | G1G2T1<br>S1S2 | None<br>None               |  | 1,600<br>2,300    | 2<br>S:2      | 0                  | 1  | 0  | 0  | 0 | 1  | 2                 | 0               | 2        | 0             | 0       |
| <i>Speyeria zerene myrtleae</i><br>Myrtle's silverspot butterfly                      | G5T1<br>S1     | Endangered<br>None         |  | 28<br>28          | 17<br>S:1     | 0                  | 0  | 0  | 0  | 1 | 0  | 1                 | 0               | 0        | 0             | 1       |



**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. |
| <i>Spirinchus thaleichthys</i><br>longfin smelt                            | G5<br>S1      | Proposed<br>Endangered<br>Threatened | IUCN_LC-Least Concern  | 0<br>20           | 46<br>S:2   | 0                  | 0  | 0 | 0 | 0 | 2  | 2                 | 0               | 2        | 0             | 0       |
| <i>Sternula antillarum browni</i><br>California least tern                 | G4T2T3Q<br>S2 | Endangered<br>Endangered             | CDFW_FP-Fully Protected                                      | 1<br>1            | 76<br>S:1   | 0                  | 0  | 0 | 0 | 1 | 0  | 1                 | 0               | 0        | 0             | 1       |
| <i>Taricha rivularis</i><br>red-bellied newt                               | G2<br>S2      | None<br>None                         | CDFW_SSC-Species of Special Concern<br>IUCN_LC-Least Concern | 1,800<br>2,000    | 136<br>S:2  | 0                  | 0  | 0 | 0 | 0 | 2  | 0                 | 2               | 2        | 0             | 0       |
| <i>Taxidea taxus</i><br>American badger                                    | G5<br>S3      | None<br>None                         | CDFW_SSC-Species of Special Concern<br>IUCN_LC-Least Concern | 30<br>2,786       | 647<br>S:30 | 0                  | 1  | 0 | 0 | 1 | 28 | 6                 | 24              | 29       | 1             | 0       |
| <i>Thamnophis sirtalis tetrataenia</i><br>San Francisco gartersnake        | G5T2Q<br>S2   | Endangered<br>Endangered             | CDFW_FP-Fully Protected                                      | 5<br>2,030        | 66<br>S:41  | 6                  | 10 | 8 | 0 | 0 | 17 | 31                | 10              | 41       | 0             | 0       |
| <i>Tryonia imitator</i><br>mimic tryonia (=California brackishwater snail) | G2<br>S2      | None<br>None                         | IUCN_DD-Data Deficient                                       | 3<br>40           | 39<br>S:2   | 0                  | 1  | 0 | 0 | 0 | 1  | 1                 | 1               | 2        | 0             | 0       |



## CNPS Rare Plant Inventory

### Search Results

91 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3712233:3712223:3712222:3712232:3712242:3712243:3712244:3712234:3712224]

| ▲ SCIENTIFIC NAME   | COMMON NAME                | FAMILY        | LIFEFORM                      | BLOOMING PERIOD  | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | CA RARE PLANT RANK |
|---|----------------------------|---------------|-------------------------------|------------------|----------|------------|-------------|------------|--------------------|
| <a href="#"><i>Acanthomintha duttonii</i></a>                             | San Mateo thorn-mint       | Lamiaceae     | annual herb                   | Apr-Jun          | FE       | CE         | G1          | S1         | 1B.1               |
| <a href="#"><i>Agrostis blasdalei</i></a>                                 | Blasdale's bent grass      | Poaceae       | perennial rhizomatous herb    | May-Jul          | None     | None       | G2G3        | S2         | 1B.2               |
| <a href="#"><i>Allium peninsulare</i> var. <i>franciscanum</i></a>        | Franciscan onion           | Alliaceae     | perennial bulbiferous herb    | (Apr)May-Jun     | None     | None       | G4G5T2      | S2         | 1B.2               |
| <a href="#"><i>Amsinckia lunaris</i></a>                                  | bent-flowered fiddleneck   | Boraginaceae  | annual herb                   | Mar-Jun          | None     | None       | G3          | S3         | 1B.2               |
| <a href="#"><i>Androsace elongata</i> ssp. <i>acuta</i></a>               | California androsace       | Primulaceae   | annual herb                   | Mar-Jun          | None     | None       | G5?T3T4     | S3S4       | 4.2                |
| <a href="#"><i>Anomobryum julaceum</i></a>                                | slender silver moss        | Bryaceae      | moss                          |                  | None     | None       | G5?         | S2         | 4.2                |
| <a href="#"><i>Aphyllon robbinsii</i></a>                                 | Robbins' broomrape         | Orobanchaceae | annual herb (achlorophyllous) | Apr-Jul          | None     | None       | G1          | S1         | 1B.1               |
| <a href="#"><i>Arabis blepharophylla</i></a>                              | coast rockcress            | Brassicaceae  | perennial herb                | Feb-May          | None     | None       | G4          | S4         | 4.3                |
| <a href="#"><i>Arctostaphylos andersonii</i></a>                          | Anderson's manzanita       | Ericaceae     | perennial evergreen shrub     | Nov-May          | None     | None       | G2          | S2         | 1B.2               |
| <a href="#"><i>Arctostaphylos glutinosa</i></a>                           | Schreiber's manzanita      | Ericaceae     | perennial evergreen shrub     | Mar-Apr(Nov)     | None     | None       | G1          | S1         | 1B.2               |
| <a href="#"><i>Arctostaphylos ohloneana</i></a>                           | Ohlone manzanita           | Ericaceae     | evergreen shrub               | Feb-Mar          | None     | None       | G1          | S1         | 1B.1               |
| <a href="#"><i>Arctostaphylos regismontana</i></a>                        | Kings Mountain manzanita   | Ericaceae     | perennial evergreen shrub     | Dec-Apr          | None     | None       | G2          | S2         | 1B.2               |
| <a href="#"><i>Arctostaphylos silvicola</i></a>                           | Bonny Doon manzanita       | Ericaceae     | perennial evergreen shrub     | Jan-Mar          | None     | None       | G1          | S1         | 1B.2               |
| <a href="#"><i>Astragalus agnicidus</i></a>                               | Humboldt County milk-vetch | Fabaceae      | perennial herb                | (Mar)Apr-Sep     | None     | CE         | G2          | S2         | 1B.1               |
| <a href="#"><i>Astragalus nuttallii</i> var. <i>nuttallii</i></a>         | ocean bluff milk-vetch     | Fabaceae      | perennial herb                | Jan-Nov          | None     | None       | G4T4        | S4         | 4.2                |
| <a href="#"><i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i></a> | coastal marsh milk-vetch   | Fabaceae      | perennial herb                | (Apr-May)Jun-Oct | None     | None       | G2T2        | S2         | 1B.2               |

|  |                                |                |                                |                   |      |      |        |      |      |
|--|--------------------------------|----------------|--------------------------------|-------------------|------|------|--------|------|------|
| <a href="#"><i>Calandrinia breweri</i></a>                         | Brewer's calandrinia           | Montiaceae     | annual herb                    | (Jan)Mar-Jun      | None | None | G4     | S4   | 4.2  |
| <a href="#"><i>Calochortus umbellatus</i></a>                      | Oakland star-tulip             | Liliaceae      | perennial bulbiferous herb     | Mar-May           | None | None | G3?    | S3?  | 4.2  |
| <a href="#"><i>Calyptridium parryi</i> var. <i>hesseae</i></a>     | Santa Cruz Mountains pussypaws | Montiaceae     | annual herb                    | May-Aug           | None | None | G3G4T2 | S2   | 1B.1 |
| <a href="#"><i>Castilleja ambigua</i> var. <i>ambigua</i></a>      | johnny-nip                     | Orobanchaceae  | annual herb (hemiparasitic)    | Mar-Aug           | None | None | G4T4   | S3S4 | 4.2  |
| <a href="#"><i>Castilleja latifolia</i></a>                        | Monterey Coast paintbrush      | Orobanchaceae  | perennial herb (hemiparasitic) | Feb-Sep           | None | None | G4     | S4   | 4.3  |
| <a href="#"><i>Centromadia parryi</i> ssp. <i>congdonii</i></a>    | Congdon's tarplant             | Asteraceae     | annual herb                    | (Apr)May-Oct(Nov) | None | None | G3T2   | S2   | 1B.1 |
| <a href="#"><i>Chorizanthe pungens</i> var. <i>hartwegiana</i></a> | Ben Lomond spineflower         | Polygonaceae   | annual herb                    | Apr-Jul           | FE   | None | G2T1   | S1   | 1B.1 |
| <a href="#"><i>Cirsium andrewsii</i></a>                           | Franciscan thistle             | Asteraceae     | perennial herb                 | Mar-Jul           | None | None | G3     | S3   | 1B.2 |
| <a href="#"><i>Cirsium fontinale</i> var. <i>fontinale</i></a>     | fountain thistle               | Asteraceae     | perennial herb                 | (Apr)May-Oct      | FE   | CE   | G2T1   | S1   | 1B.1 |
| <a href="#"><i>Cirsium praeteriens</i></a>                         | lost thistle                   | Asteraceae     | perennial herb                 | Jun-Jul           | None | None | GX     | SX   | 1A   |
| <a href="#"><i>Clarkia concinna</i> ssp. <i>automixa</i></a>       | Santa Clara red ribbons        | Onagraceae     | annual herb                    | (Apr)May-Jun(Jul) | None | None | G5?T3  | S3   | 4.3  |
| <a href="#"><i>Collinsia corymbosa</i></a>                         | round-headed collinsia         | Plantaginaceae | annual herb                    | Apr-Jun           | None | None | G1     | S1   | 1B.2 |
| <a href="#"><i>Collinsia multicolor</i></a>                        | San Francisco collinsia        | Plantaginaceae | annual herb                    | (Feb)Mar-May      | None | None | G2     | S2   | 1B.2 |
| <a href="#"><i>Cypripedium fasciculatum</i></a>                    | clustered lady's-slipper       | Orchidaceae    | perennial rhizomatous herb     | Mar-Aug           | None | None | G4     | S4   | 4.2  |
| <a href="#"><i>Cypripedium montanum</i></a>                        | mountain lady's-slipper        | Orchidaceae    | perennial rhizomatous herb     | Mar-Aug           | None | None | G4G5   | S4   | 4.2  |
| <a href="#"><i>Deinandra paniculata</i></a>                        | paniculate tarplant            | Asteraceae     | annual herb                    | (Mar)Apr-Nov      | None | None | G4     | S4   | 4.2  |
| <a href="#"><i>Dirca occidentalis</i></a>                          | western leatherwood            | Thymelaeaceae  | perennial deciduous shrub      | Jan-Mar(Apr)      | None | None | G2     | S2   | 1B.2 |
| <a href="#"><i>Elymus californicus</i></a>                         | California bottle-brush grass  | Poaceae        | perennial herb                 | May-Aug(Nov)      | None | None | G4     | S4   | 4.3  |
| <a href="#"><i>Eriophyllum latilobum</i></a>                       | San Mateo woolly sunflower     | Asteraceae     | perennial herb                 | May-Jun           | FE   | CE   | G1     | S1   | 1B.1 |
| <a href="#"><i>Eryngium aristulatum</i> var. <i>hooveri</i></a>    | Hoover's button-celery         | Apiaceae       | annual/perennial herb          | (Jun)Jul(Aug)     | None | None | G5T1   | S1   | 1B.1 |
| <a href="#"><i>Eryngium jepsonii</i></a>                           | Jepson's coyote-thistle        | Apiaceae       | perennial herb                 | Apr-Aug           | None | None | G2     | S2   | 1B.2 |
| <a href="#"><i>Erysimum ammophilum</i></a>                         | sand-loving wallflower         | Brassicaceae   | perennial herb                 | Feb-Jun(Jul-Aug)  | None | None | G2     | S2   | 1B.2 |
| <a href="#"><i>Erysimum franciscanum</i></a>                       | San Francisco wallflower       | Brassicaceae   | perennial herb                 | Mar-Jun           | None | None | G3     | S3   | 4.2  |
| <a href="#"><i>Fissidens pauperculus</i></a>                       | minute pocket moss             | Fissidentaceae | moss                           |                   | None | None | G3?    | S2   | 1B.2 |

|  |                            |               |                            |              |      |      |       |      |      |
|--|----------------------------|---------------|----------------------------|--------------|------|------|-------|------|------|
| <a href="#"><i>Fritillaria agrestis</i></a>  | stinkbells                 | Liliaceae     | perennial bulbiferous herb | Mar-Jun      | None | None | G3    | S3   | 4.2  |
| <a href="#"><i>Fritillaria liliacea</i></a>  | fragrant fritillary        | Liliaceae     | perennial bulbiferous herb | Feb-Apr      | None | None | G2    | S2   | 1B.2 |
| <a href="#"><i>Grimmia torenii</i></a>   | Toren's grimmia            | Grimmiaceae   | moss                       |              | None | None | G2    | S2   | 1B.3 |
| <a href="#"><i>Grimmia vaginulata</i></a>  | vaginulate grimmia         | Grimmiaceae   | moss                       |              | None | None | G3    | S1   | 1B.1 |
| <a href="#"><i>Grindelia hirsutula</i></a><br><a href="#"><i>var. maritima</i></a>       | San Francisco gumplant     | Asteraceae    | perennial herb             | Jun-Sep      | None | None | G5T1Q | S1   | 3.2  |
| <a href="#"><i>Hesper-evax sparsiflora</i></a><br><a href="#"><i>var. brevifolia</i></a> | short-leaved evax          | Asteraceae    | annual herb                | Mar-Jun      | None | None | G4T3  | S3   | 1B.2 |
| <a href="#"><i>Hesperocyparis abramsiana</i></a> var. <a href="#"><i>abramsiana</i></a>  | Santa Cruz cypress         | Cupressaceae  | perennial evergreen tree   |              | FT   | CE   | G1T1  | S1   | 1B.2 |
| <a href="#"><i>Hesperocyparis abramsiana</i></a> var. <a href="#"><i>butanoensis</i></a> | Butano Ridge cypress       | Cupressaceae  | perennial evergreen tree   | Oct          | FT   | CE   | G1T1  | S1   | 1B.2 |
| <a href="#"><i>Hesperolinon congestum</i></a>  | Marin western flax         | Linaceae      | annual herb                | Apr-Jul      | FT   | CT   | G1    | S1   | 1B.1 |
| <a href="#"><i>Horkelia cuneata</i></a> var. <a href="#"><i>sericea</i></a>              | Kellogg's horkelia         | Rosaceae      | perennial herb             | Apr-Sep      | None | None | G4T1? | S1?  | 1B.1 |
| <a href="#"><i>Hosackia gracilis</i></a>   | harlequin lotus            | Fabaceae      | perennial rhizomatous herb | Mar-Jul      | None | None | G3G4  | S3   | 4.2  |
| <a href="#"><i>Iris longipetala</i></a>  | coast iris                 | Iridaceae     | perennial rhizomatous herb | Mar-May(Jun) | None | None | G3    | S3   | 4.2  |
| <a href="#"><i>Lasthenia californica</i></a><br><a href="#"><i>ssp. macrantha</i></a>    | perennial goldfields       | Asteraceae    | perennial herb             | Jan-Nov      | None | None | G3T2  | S2   | 1B.2 |
| <a href="#"><i>Legenere limosa</i></a>   | legenere                   | Campanulaceae | annual herb                | Apr-Jun      | None | None | G2    | S2   | 1B.1 |
| <a href="#"><i>Leptosiphon ambiguus</i></a>  | serpentine leptosiphon     | Polemoniaceae | annual herb                | Mar-Jun      | None | None | G4    | S4   | 4.2  |
| <a href="#"><i>Leptosiphon aureus</i></a>  | bristly leptosiphon        | Polemoniaceae | annual herb                | Apr-Jul      | None | None | G4?   | S4?  | 4.2  |
| <a href="#"><i>Leptosiphon grandiflorus</i></a>  | large-flowered leptosiphon | Polemoniaceae | annual herb                | Apr-Aug      | None | None | G3G4  | S3S4 | 4.2  |
| <a href="#"><i>Leptosiphon latisectus</i></a>  | broad-lobed leptosiphon    | Polemoniaceae | annual herb                | Apr-Jun      | None | None | G4    | S4   | 4.3  |
| <a href="#"><i>Leptosiphon rosaceus</i></a>  | rose leptosiphon           | Polemoniaceae | annual herb                | Apr-Jul      | None | None | G1    | S1   | 1B.1 |
| <a href="#"><i>Lessingia arachnoidea</i></a>   | Crystal Springs lessingia  | Asteraceae    | annual herb                | Jul-Oct      | None | None | G2    | S2   | 1B.2 |
| <a href="#"><i>Lessingia hololeuca</i></a>   | woolly-headed lessingia    | Asteraceae    | annual herb                | Jun-Oct      | None | None | G2G3  | S2S3 | 3    |
| <a href="#"><i>Lessingia tenuis</i></a>  | spring lessingia           | Asteraceae    | annual herb                | May-Jul      | None | None | G4    | S4   | 4.3  |
| <a href="#"><i>Limnanthes douglasii</i></a><br><a href="#"><i>ssp. sulphurea</i></a>     | Point Reyes meadowfoam     | Limnanthaceae | annual herb                | Mar-May      | None | CE   | G4T1  | S1   | 1B.2 |
| <a href="#"><i>Lupinus arboreus</i></a> var. <a href="#"><i>eximius</i></a>              | San Mateo tree lupine      | Fabaceae      | perennial evergreen shrub  | Apr-Jul      | None | None | G2Q   | S2   | 3.2  |
| <a href="#"><i>Malacothamnus arcuatus</i></a> var. <a href="#"><i>arcuatus</i></a>       | arcuate bush-mallow        | Malvaceae     | perennial deciduous shrub  | Apr-Sep      | None | None | G2Q   | S2   | 1B.2 |

|  |                                  |                    |                                       |                       |      |      |        |      |      |
|--|----------------------------------|--------------------|---------------------------------------|-----------------------|------|------|--------|------|------|
| <a href="#"><i>Microseris paludosa</i></a>                               | marsh microseris                 | Asteraceae         | perennial herb                        | Apr-Jun(Jul)          | None | None | G2     | S2   | 1B.2 |
| <a href="#"><i>Mielichhoferia elongata</i></a>                           | elongate copper moss             | Mielichhoferiaceae | moss                                  |                       | None | None | G5     | S3S4 | 4.3  |
| <a href="#"><i>Monolopia gracilens</i></a>                               | woodland woollythreads           | Asteraceae         | annual herb                           | (Feb)Mar-Jul          | None | None | G3     | S3   | 1B.2 |
| <a href="#"><i>Orthotrichum kellmanii</i></a>                            | Kellman's bristle moss           | Orthotrichaceae    | moss                                  | Jan-Feb               | None | None | G1     | S1   | 1B.2 |
| <a href="#"><i>Pedicularis dudleyi</i></a>                               | Dudley's lousewort               | Orobanchaceae      | perennial herb                        | Apr-Jun               | None | CR   | G2     | S2   | 1B.2 |
| <a href="#"><i>Penstemon rattanii</i> var. <i>kleei</i></a>              | Santa Cruz Mountains beardtongue | Plantaginaceae     | perennial herb                        | (Mar)May-Jun          | None | None | G4T2   | S2   | 1B.2 |
| <a href="#"><i>Pentachaeta bellidiflora</i></a>                          | white-rayed pentachaeta          | Asteraceae         | annual herb                           | Mar-May               | FE   | CE   | G1     | S1   | 1B.1 |
| <a href="#"><i>Perideridia gairdneri</i> ssp. <i>gairdneri</i></a>       | Gairdner's yampah                | Apiaceae           | perennial herb                        | Jun-Oct               | None | None | G5T3T4 | S3S4 | 4.2  |
| <a href="#"><i>Pinus radiata</i></a>                                     | Monterey pine                    | Pinaceae           | perennial evergreen tree              |                       | None | None | G1     | S1   | 1B.1 |
| <a href="#"><i>Piperia candida</i></a>                                   | white-flowered rein orchid       | Orchidaceae        | perennial herb                        | (Mar-Apr)May-Sep      | None | None | G3?    | S3   | 1B.2 |
| <a href="#"><i>Piperia michaelii</i></a>                                 | Michael's rein orchid            | Orchidaceae        | perennial herb                        | Apr-Aug               | None | None | G3     | S3   | 4.2  |
| <a href="#"><i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i></a> | Choris' popcornflower            | Boraginaceae       | annual herb                           | Mar-Jun               | None | None | G3T1Q  | S1   | 1B.2 |
| <a href="#"><i>Plagiobothrys chorisianus</i> var. <i>hickmanii</i></a>   | Hickman's popcornflower          | Boraginaceae       | annual herb                           | Apr-Jun               | None | None | G3T3Q  | S3   | 4.2  |
| <a href="#"><i>Plagiobothrys diffusus</i></a>                            | San Francisco popcornflower      | Boraginaceae       | annual herb                           | Mar-Jun               | None | CE   | G1Q    | S1   | 1B.1 |
| <a href="#"><i>Ranunculus lobbii</i></a>                                 | Lobb's aquatic buttercup         | Ranunculaceae      | annual herb (aquatic)                 | Feb-May               | None | None | G4     | S3   | 4.2  |
| <a href="#"><i>Sagittaria sanfordii</i></a>                              | Sanford's arrowhead              | Alismataceae       | perennial rhizomatous herb (emergent) | May-Oct(Nov)          | None | None | G3     | S3   | 1B.2 |
| <a href="#"><i>Sanicula hoffmannii</i></a>                               | Hoffmann's sanicle               | Apiaceae           | perennial herb                        | Mar-May               | None | None | G3     | S3   | 4.3  |
| <a href="#"><i>Senecio aphanactis</i></a>                                | chaparral ragwort                | Asteraceae         | annual herb                           | Jan-Apr(May)          | None | None | G3     | S2   | 2B.2 |
| <a href="#"><i>Silene scouleri</i> ssp. <i>scouleri</i></a>              | Scouler's catchfly               | Caryophyllaceae    | perennial herb                        | (Mar-May)Jun-Aug(Sep) | None | None | G5T4T5 | S2S3 | 2B.2 |
| <a href="#"><i>Silene verecunda</i> ssp. <i>verecunda</i></a>            | San Francisco campion            | Caryophyllaceae    | perennial herb                        | (Feb)Mar-Jul(Aug)     | None | None | G5T1   | S1   | 1B.2 |
| <a href="#"><i>Stebbinsoseris decipiens</i></a>                          | Santa Cruz microseris            | Asteraceae         | annual herb                           | Apr-May               | None | None | G2     | S2   | 1B.2 |
| <a href="#"><i>Stuckenia filiformis</i> ssp. <i>alpina</i></a>           | northern slender pondweed        | Potamogetonaceae   | perennial rhizomatous herb (aquatic)  | May-Jul               | None | None | G5T5   | S2S3 | 2B.2 |
| <a href="#"><i>Trifolium amoenum</i></a>                                 | two-fork clover                  | Fabaceae           | annual herb                           | Apr-Jun               | FE   | None | G1     | S1   | 1B.1 |

|                                       |                           |              |                              |              |      |      |    |    |      |
|---------------------------------------|---------------------------|--------------|------------------------------|--------------|------|------|----|----|------|
| <u><i>Trifolium buckwestiorum</i></u> | Santa Cruz clover         | Fabaceae     | annual herb                  | Apr-Oct      | None | None | G2 | S2 | 1B.1 |
| <u><i>Trifolium polyodon</i></u>      | Pacific Grove clover      | Fabaceae     | annual herb                  | Apr-Jun(Jul) | None | CR   | G1 | S1 | 1B.1 |
| <u><i>Usnea longissima</i></u>        | Methuselah's beard lichen | Parmeliaceae | fruticose lichen (epiphytic) |              | None | None | G4 | S4 | 4.2  |

Showing 1 to 91 of 91 entries

**Suggested Citation:**

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 24 April 2024].

# 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

NOT FOR CONSULTATION

# 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<sup>1</sup> 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<sup>2</sup>).

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:

## Birds

| NAME  | STATUS     |
|---|------------|
| <p>California Condor <i>Gymnogyps californianus</i></p> <p>There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat.</p> <p><a href="https://ecos.fws.gov/ecp/species/8193">https://ecos.fws.gov/ecp/species/8193</a></p> | Endangered |
| <p>California Least Tern <i>Sternula antillarum browni</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species.</p> <p><a href="https://ecos.fws.gov/ecp/species/8104">https://ecos.fws.gov/ecp/species/8104</a></p>                        | Endangered |
| <p>Marbled Murrelet <i>Brachyramphus marmoratus</i></p> <p>There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat.</p> <p><a href="https://ecos.fws.gov/ecp/species/4467">https://ecos.fws.gov/ecp/species/4467</a></p> | Threatened |

## Reptiles

| NAME   | STATUS              |
|--|---------------------|
| <p>Green Sea Turtle <i>Chelonia mydas</i></p> <p>No critical habitat has been designated for this species.</p> <p><a href="https://ecos.fws.gov/ecp/species/6199">https://ecos.fws.gov/ecp/species/6199</a></p>  | Threatened          |
| <p>Northwestern Pond Turtle <i>Actinemys marmorata</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species.</p> <p><a href="https://ecos.fws.gov/ecp/species/1111">https://ecos.fws.gov/ecp/species/1111</a></p>               | Proposed Threatened |
| <p>San Francisco Garter Snake <i>Thamnophis sirtalis tetrataenia</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species.</p> <p><a href="https://ecos.fws.gov/ecp/species/5956">https://ecos.fws.gov/ecp/species/5956</a></p> | Endangered          |

## Amphibians

| NAME | STATUS |
|------|--------|
|------|--------|

|                            |                       |            |
|----------------------------|-----------------------|------------|
| California Red-legged Frog | <i>Rana draytonii</i> | Threatened |
|----------------------------|-----------------------|------------|

Wherever found

There is **final** critical habitat for this species. Your location overlaps the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

|                             |                    |            |
|-----------------------------|--------------------|------------|
| Foothill Yellow-legged Frog | <i>Rana boylei</i> | Threatened |
|-----------------------------|--------------------|------------|

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5133>

## Fishes

|      |        |
|------|--------|
| NAME | STATUS |
|------|--------|

|                |                                |            |
|----------------|--------------------------------|------------|
| Tidewater Goby | <i>Eucyclogobius newberryi</i> | Endangered |
|----------------|--------------------------------|------------|

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/57>

## Insects

|      |        |
|------|--------|
| NAME | STATUS |
|------|--------|

|                   |                         |           |
|-------------------|-------------------------|-----------|
| Monarch Butterfly | <i>Danaus plexippus</i> | Candidate |
|-------------------|-------------------------|-----------|

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

## Flowering Plants

|      |        |
|------|--------|
| NAME | STATUS |
|------|--------|

|                            |                              |            |
|----------------------------|------------------------------|------------|
| San Mateo Woolly Sunflower | <i>Eriophyllum latilobum</i> | Endangered |
|----------------------------|------------------------------|------------|

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7791>

## Critical habitats

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

This location overlaps the critical habitat for the following species:

|      |      |
|------|------|
| NAME | TYPE |
|------|------|

California Red-legged Frog *Rana draytonii*  
<https://ecos.fws.gov/ecp/species/2891#crithab>

Final

## Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act<sup>1</sup> and the Migratory Bird Treaty Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats<sup>3</sup>, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

| NAME   | BREEDING SEASON        |
|--|------------------------|
| <p><b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p><a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a></p> | Breeds Jan 1 to Aug 31 |

**Golden Eagle** *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

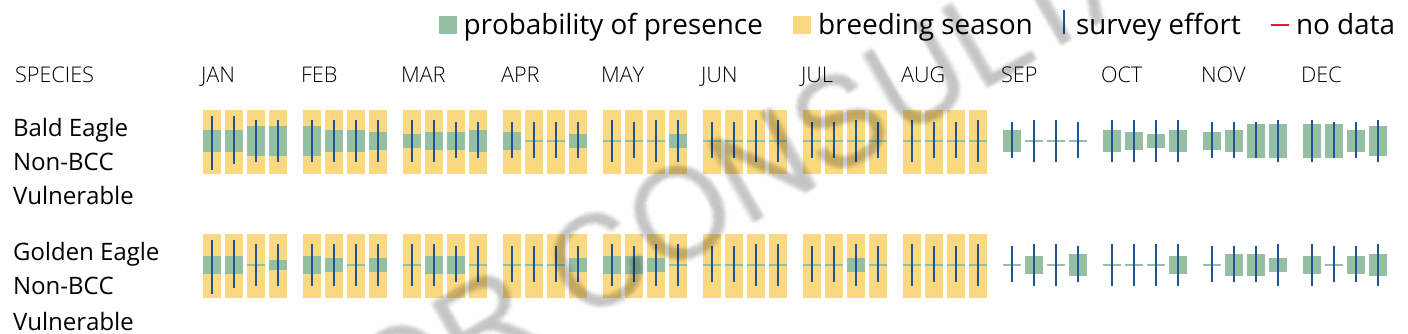
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

### No Data (—)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



### What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid

cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats<sup>3</sup> should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around

your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

| NAME   | BREEDING SEASON         |
|--|-------------------------|
| <p><b>Allen's Hummingbird</b> <i>Selasphorus sasin</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br/> <a href="https://ecos.fws.gov/ecp/species/9637">https://ecos.fws.gov/ecp/species/9637</a></p>  | Breeds Feb 1 to Jul 15  |
| <p><b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.<br/> <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a></p> | Breeds Jan 1 to Aug 31  |
| <p><b>Belding's Savannah Sparrow</b> <i>Passerculus sandwichensis beldingi</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA<br/> <a href="https://ecos.fws.gov/ecp/species/8">https://ecos.fws.gov/ecp/species/8</a></p>   | Breeds Apr 1 to Aug 15  |
| <p><b>Black Oystercatcher</b> <i>Haematopus bachmani</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br/> <a href="https://ecos.fws.gov/ecp/species/9591">https://ecos.fws.gov/ecp/species/9591</a></p>  | Breeds Apr 15 to Oct 31 |
| <p><b>Black Swift</b> <i>Cypseloides niger</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br/> <a href="https://ecos.fws.gov/ecp/species/8878">https://ecos.fws.gov/ecp/species/8878</a></p>  | Breeds Jun 15 to Sep 10 |
| <p><b>Black Turnstone</b> <i>Arenaria melanocephala</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>  | Breeds elsewhere        |

|  |                         |
|--|-------------------------|
| <b>Bullock's Oriole</b> <i>Icterus bullockii</i><br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  | Breeds Mar 21 to Jul 25 |
| <b>California Gull</b> <i>Larus californicus</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.   | Breeds Mar 1 to Jul 31  |
| <b>California Thrasher</b> <i>Toxostoma redivivum</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  | Breeds Jan 1 to Jul 31  |
| <b>Clark's Grebe</b> <i>Aechmophorus clarkii</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.   | Breeds Jun 1 to Aug 31  |
| <b>Common Yellowthroat</b> <i>Geothlypis trichas sinuosa</i><br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA<br><a href="https://ecos.fws.gov/ecp/species/2084">https://ecos.fws.gov/ecp/species/2084</a>   | Breeds May 20 to Jul 31 |
| <b>Elegant Tern</b> <i>Thalasseus elegans</i><br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA<br><a href="https://ecos.fws.gov/ecp/species/8561">https://ecos.fws.gov/ecp/species/8561</a>  | Breeds Apr 5 to Aug 5   |
| <b>Golden Eagle</b> <i>Aquila chrysaetos</i><br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.<br><a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a> | Breeds Jan 1 to Aug 31  |
| <b>Heermann's Gull</b> <i>Larus heermanni</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  | Breeds Mar 15 to Aug 31 |
| <b>Lawrence's Goldfinch</b> <i>Spinus lawrencei</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br><a href="https://ecos.fws.gov/ecp/species/9464">https://ecos.fws.gov/ecp/species/9464</a>   | Breeds Mar 20 to Sep 20 |

|   |                         |
|---|-------------------------|
| <b>Marbled Godwit</b> <i>Limosa fedoa</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br><a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a>  | Breeds elsewhere        |
| <b>Northern Harrier</b> <i>Circus hudsonius</i><br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA<br><a href="https://ecos.fws.gov/ecp/species/8350">https://ecos.fws.gov/ecp/species/8350</a>                     | Breeds Apr 1 to Sep 15  |
| <b>Nuttall's Woodpecker</b> <i>Dryobates nuttallii</i><br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA<br><a href="https://ecos.fws.gov/ecp/species/9410">https://ecos.fws.gov/ecp/species/9410</a>              | Breeds Apr 1 to Jul 20  |
| <b>Oak Titmouse</b> <i>Baeolophus inornatus</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br><a href="https://ecos.fws.gov/ecp/species/9656">https://ecos.fws.gov/ecp/species/9656</a>  | Breeds Mar 15 to Jul 15 |
| <b>Olive-sided Flycatcher</b> <i>Contopus cooperi</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br><a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a>                                  | Breeds May 20 to Aug 31 |
| <b>Red Knot</b> <i>Calidris canutus roselaari</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br><a href="https://ecos.fws.gov/ecp/species/8880">https://ecos.fws.gov/ecp/species/8880</a>                                      | Breeds elsewhere        |
| <b>Santa Barbara Song Sparrow</b> <i>Melospiza melodia graminea</i><br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA<br><a href="https://ecos.fws.gov/ecp/species/5513">https://ecos.fws.gov/ecp/species/5513</a> | Breeds Mar 1 to Sep 5   |
| <b>Scripps's Murrelet</b> <i>Synthliboramphus scrippsi</i><br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  | Breeds Feb 20 to Jul 31 |

|   |                         |
|---|-------------------------|
| <p>Short-billed Dowitcher <i>Limnodromus griseus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a></p> | Breeds elsewhere        |
| <p>Tricolored Blackbird <i>Agelaius tricolor</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/3910">https://ecos.fws.gov/ecp/species/3910</a></p>     | Breeds Mar 15 to Aug 10 |
| <p>Western Grebe <i>aechmophorus occidentalis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/6743">https://ecos.fws.gov/ecp/species/6743</a></p>    | Breeds Jun 1 to Aug 31  |
| <p>Western Gull <i>Larus occidentalis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>   | Breeds Apr 21 to Aug 25 |
| <p>Western Screech-owl <i>Megascops kennicottii cardonensis</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>  | Breeds Mar 1 to Jun 30  |
| <p>Willet <i>Tringa semipalmata</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>   | Breeds elsewhere        |
| <p>Wrentit <i>Chamaea fasciata</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>  | Breeds Mar 15 to Aug 10 |

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

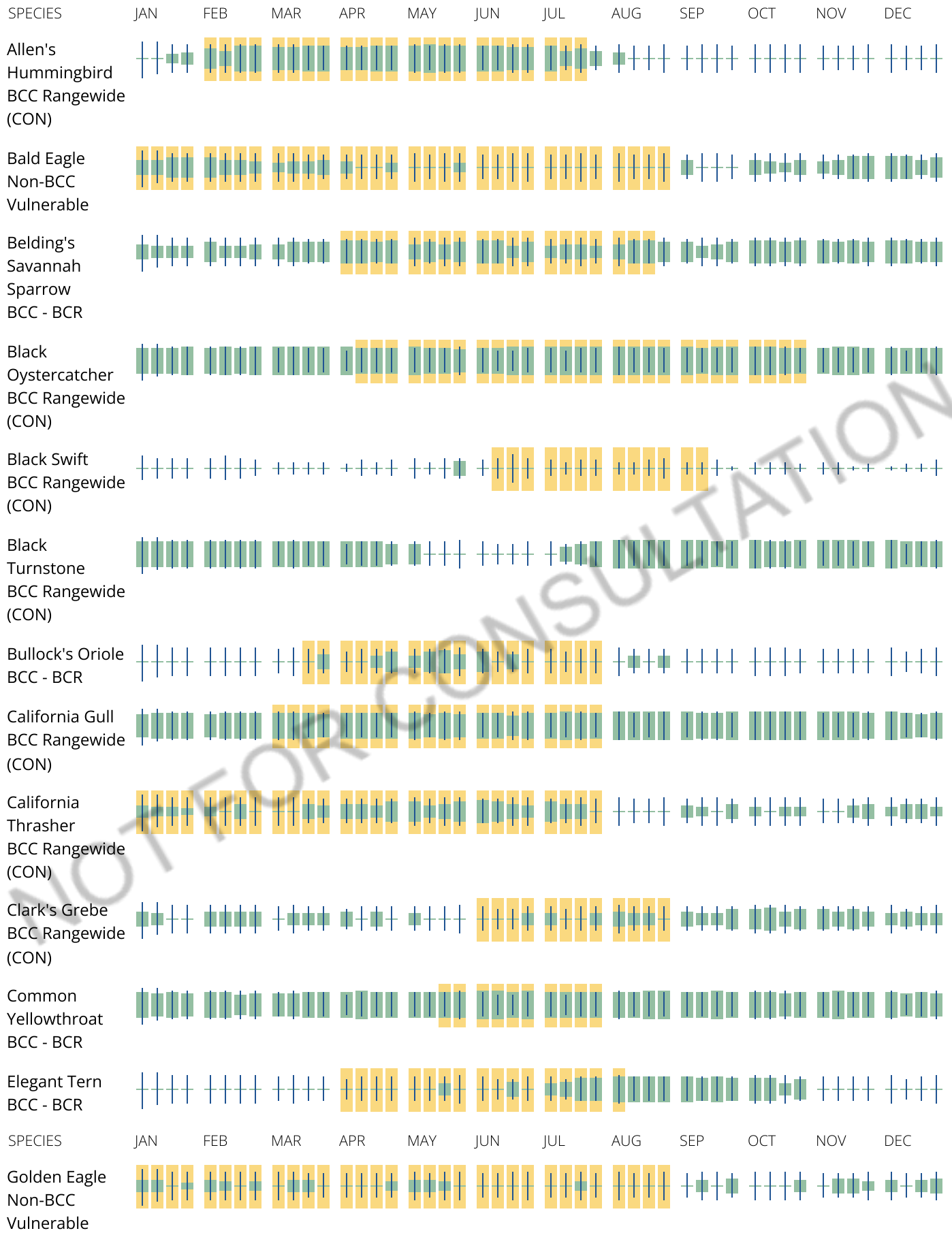
### No Data (—)

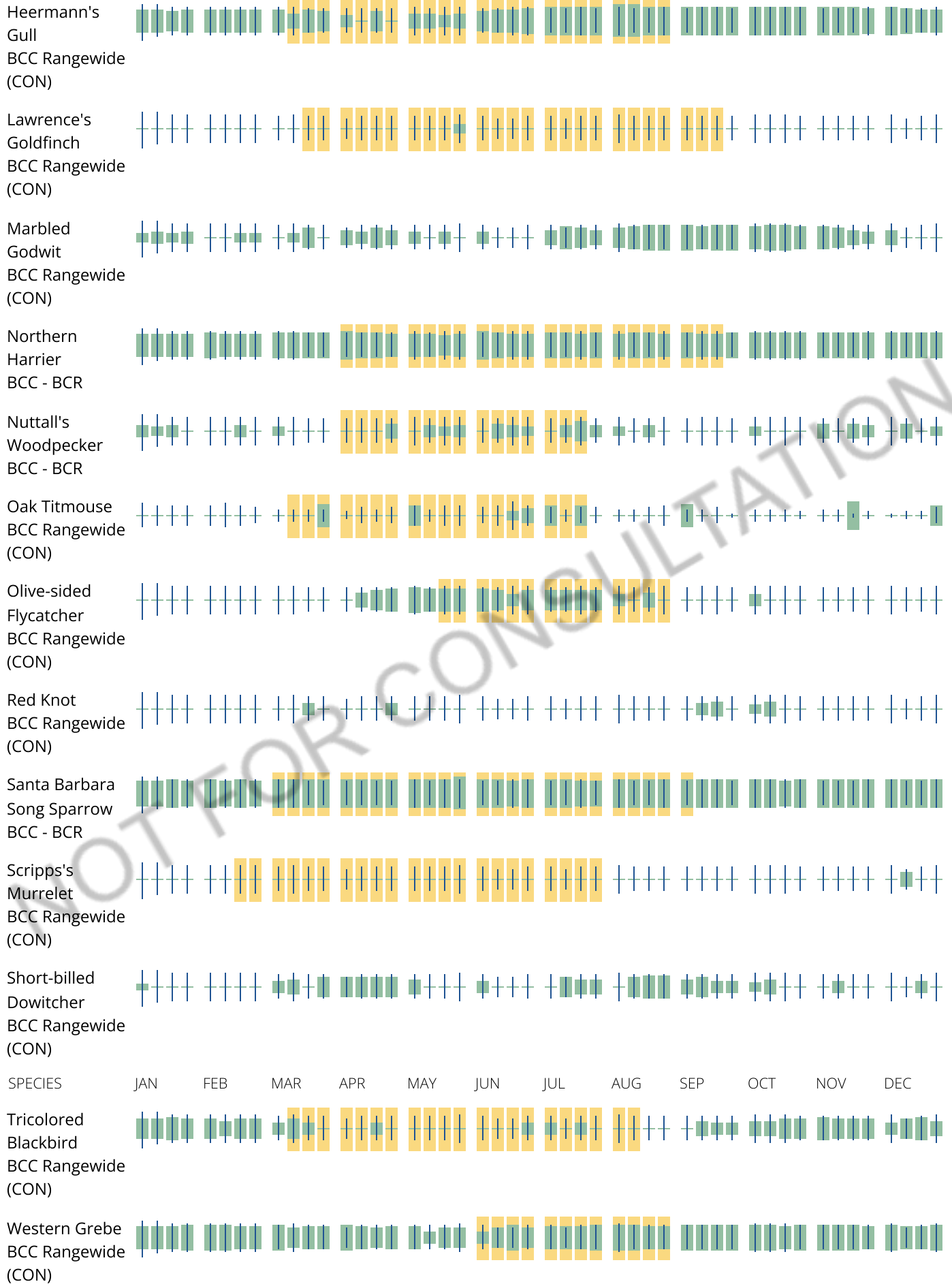
A week is marked as having no data if there were no survey events for that week.

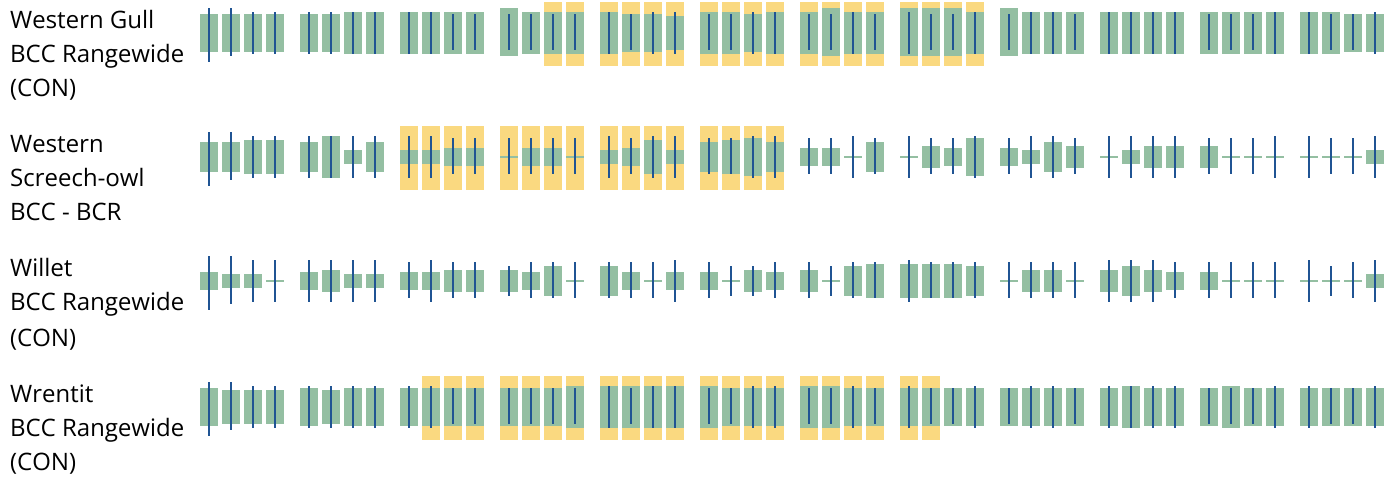
### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

■ probability of presence ■ breeding season | survey effort — no data







### Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

## Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

### Fish hatcheries

There are no fish hatcheries at this location.

# Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R3UBH](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

**NOTE:** This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

## Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

## Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and

nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION