Memorandum

Making Conservation a California Way of Life

To: Jason Meyer
Senior Environmental Scientist-E3
North Region Environmental

Date: June 5, 2023

File: Boyd Draw Bike Path
01-HUM-101 / PM 89.4
01-0K510 / 0120000108

From: Dominic Moore
Environmental Scientist-E3
North Region Environmental

SUBJECT: BIOLOGICAL RESOURCES EVALUATION MEMO

PROJECT DESCRIPTION

This memorandum was prepared to address the biological resources, including endangered species and sensitive resources, for the Boyd Draw Bike Path Project on U.S. Highway (US) 101 at post mile (PM) 89.4 within the city of Arcata in Humboldt County. This project would require approximately 0.28 acre right of way acquisition along the west side of U.S. 101 to connect Heindon Road with the existing State right of way at the Boyd Draw Bridge. Construction would involve vegetation and RSP removal, fence installation, grading work, placement of detectable warning surface, placement of imported borrow, aggregate base and hot mix asphalt (HMA). In addition to the bike path, construction of a new access road, approximately 380 feet long, is planned for the affected property. The first section of the access road would involve paving a 10-foot-wide road connecting to a 15-foot-wide gravel access road that would be created, terminating at the proposed staging area on private property.

PROJECT PURPOSE AND NEED

The purpose of this project is to provide connectivity for bicyclists using the local road system paralleling the highway.

The project is needed because bicyclists choosing not to ride on US 101 use the barrier-separated, two-way side path located on the northbound span (east side) of the US 101 Mad River Bridge. To commute between Arcata and McKinleyville, bicyclists need to negotiate two roundabouts at Giuntoli Lane to cross US 101 south of the Mad River. The next crossing to the south is West End Road, which would add 1.8 miles (approximately 9 minutes) of out of direction travel to

commute to northwest Arcata from the Mad River Bridge. Construction of a bike path through Boyd Draw would enhance connectivity between the communities of Arcata and McKinleyville, for both bicyclists and pedestrians, by shortening the direction travel and avoiding the negotiation of two, single-lane roundabouts at the Giuntoli Lane overcrossing.

Caltrans' Complete Streets Directive promotes a multimodal transportation system that accommodates pedestrians, bicyclists, transit, and vehicular users. This project would provide a complete streets enhancement by connecting Wymore Road and Heindon Road and would connect the Arcata Bottoms and the existing multi-use path across the northbound span of the US 101 Mad River Bridge.

STANDARD MEASURES AND BEST MANAGEMENT PRACTICES (BMPS)

In compliance with several state and federal laws, policies and regulations, Caltrans implements standard measures during construction. Theses standard measures and Best Management Practices (BMPs) are identified in Caltrans Standard Specifications, Standard Special Provisions, other manuals, or may otherwise be standard business practices.

The following standard measures and BMPs would be included as part of the project:

- Where feasible, the removal of established trees and vegetation would be minimized. Temporary High Visibility Fencing (THVF) would be installed in Environmentally Sensitive Areas (ESAs) before start of construction to demarcate areas where vegetation would be preserved and root systems of trees protected.
- Equipment would be inspected daily for leaks and completely cleaned of any external petroleum products, hydraulic fluid, coolants, and other deleterious materials prior to operating equipment.
- Measures to prevent construction equipment effluents from contaminating soil or waters in the construction site, such as absorbent pads.
- Maintenance and fueling of construction equipment and vehicles would occur at least 50 feet from the ordinary high-water mark (OHWM) of surface water or the edge of sensitive habitats (e.g., wetlands).
- The contractor would be required to develop and implement site-specific BMPs and emergency spill controls.

- Water in contact with setting concrete would be pumped into a tank truck and disposed at an approved disposal site or settling basin.
- Environmentally Sensitive Areas (ESAs) would be designated on construction plans and protected during construction.
- To protect migratory and nongame birds (occupied nests and eggs), if possible, vegetation removal would be limited to the period outside of the bird breeding season (removal would occur between September 16 and January 31). If vegetation removal is required during the breeding season, a nesting bird survey would be conducted by a qualified biologist within one week prior to vegetation removal. If an active nest is located, the biologist would coordinate with CDFW to establish appropriate species-specific buffer(s) and any monitoring requirements. The buffer would be delineated around each active nest and construction activities would be excluded from these areas until birds have fledged, or the nest is determined to be unoccupied.

ENVIRONMENTAL SETTING

The proposed project is along U.S. Highway 101 in Humboldt County within the Arcata North U.S. Geological Survey (USGS) quadrangle at approximately 30 feet elevation. The project is within the North Coast Subregion in the Northwestern California Region of the California Floristic Province, which is characterized by true coastal vegetation, including predominantly coastal prairie, along with coastal marsh, coastal scrub, closed-cone-pine/cypress forest, and grand-fir/Sitka-spruce Forest (Baldwin et al., 2012). Historical data used to describe the climate was collected at the Eureka-Arcata Airport in McKinleyville, California (Natural Resources Conservation Service [NRCS] 2023). The airport is located approximately 3.8 miles northeast of the Environmental Study Limits (ESL). The climate in the area is Mediterranean with cool, dry summers and mild, wet winters. The average highest temperatures occur in September at 64.7 degrees Fahrenheit (ºF) and the average lowest temperatures occur in December at 55.6ºF. Average annual precipitation was 46.59 inches in the form of rainfall.

STUDY METHODS

The United States Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) database, California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS), and eBird databases were examined to determine the possible occurrences of special status species within the Arcata North and surrounding 8 USGS 7.5-minute quadrangles. Special status species are defined as federally endangered, threatened, or candidate (FE, FT, FC); state endangered, threatened, or candidate (SE, ST, SC); state fully-protected (FP); state species of special concern (SSC); or California Rare Plant Ranks (CRPR) 1A, 1B, 2A and 2B. The USFWS National Wetlands Inventory (NWI) Wetlands Mapper was also reviewed to identify known wetland resources within the project area (Attachment A).

Caltrans biologists Dominic Moore and Ben Lardiere visited the project site to document and observe biological resources that may be occurring within the Environmental Study Limits (ESL). Floristic surveys were conducted and the ESL was assessed for wetland indicators. Given the lack of hydrology, plant and hydric soil wetland indicators, delineations were not conducted. No special status plant taxa, animals, or regional habitats of concerns were observed during the surveys.

SPECIAL STATUS SPECIES EVALUATION

Federal, state, and special status species known to occur within the nine-quad search radius were analyzed for their potential to occur within the project vicinity. A desktop review and field survey were used to determine that several of these species are known to occur within the region, however, are not expected to be present in the work area due to a lack of suitable habitat. The proposed project is not anticipated to affect any listed, protected, or candidate species. There is no Essential Fish Habitat (per NMFS: Pacific salmon, groundfish or coastal pelagics) or Critical Habitat (CH) within the immediate project area.

Special Status Plant Species

The CNDDB, CNPS, and IPaC lists element occurrences (EO) of rare plant species adjacent to the project area (Attachments C, D, and E). All the plants constituting CRPR 1A, 1B, 2A and 2B (Attachments C, D, and E) meet the definitions of the California Endangered Species Act of the California Department of Fish and Game Code and are eligible for state listing. Impacts to these species or their habitat must be

analyzed during preparation of environmental documents relating to the California Environmental Quality Act (CEQA). However, as the project locations lack suitable habitat, the proposed project is not anticipated to affect any special status plant species. As impacts to these species are not anticipated, no avoidance or minimization measures are proposed.

Special Status Animal Species

The CNDDB, IPaC, and NMFS species lists indicate that known special status species detections have occurred adjacent to the project area (Attachments C, E, and F). However, the project location lacks suitable habitat, therefore impacts to this species or other special status animal species are unlikely to occur.

Migratory Birds

Nesting birds are protected under the Migratory Bird Treaty Act (MBTA) and may be present during the nesting season (February 1–September 15) on the ground and in trees, shrubs, and structures. Regulatory references to "nests" imply that the nests are active. An active nest is defined as containing eggs or having one or more adult birds in close attendance. A nest that does not have eggs or adults present, and a nest outside the nesting season (approximately February 1–September 15), is not protected. Nests containing abandoned eggs (often encountered outside of nesting season) are also not protected. An exception to this definition is raptors and colonial nesting birds that build large nests used repetitively from year to year. During the nesting season, birds can be impacted by tree and vegetation removal. It is anticipated all vegetation removal would be done outside the nesting season; therefore, the work would not impact migratory birds. However, if any vegetation is not cleared during the proposed dates, surveys would be conducted (no earlier than five days prior to vegetation removal) by a qualified biologist to identify and locate nesting birds.

WATERS OF THE U.S. AND STATE EVALUATION

The California Coastal Commission (CCC) regulates Coastal Zone wetlands through the California Coastal Act (CCA). The CCA defines wetlands as "lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." Additional guidance provided in Section 13577(b) of the California Code of Regulations (CCR) specifies that the CCC requires only one of the three wetland parameters (i.e., hydrophytic vegetation, hydric soils, wetland hydrology) to be considered a Coastal Zone wetland. Aquatic features potentially under the jurisdiction of the CCC were evaluated using the same methods as required by the USACE.

Impacts to wetlands and waters were evaluated in accordance with the U.S. Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). The USACE method uses a three-parameter approach to determine whether the soils, vegetation and hydrology meet the criteria for a jurisdictional wetland. Jurisdictional indicators for wetlands are not present within the project area. No jurisdictional drainages or features are proposed to be impacted by the project.

EFFECTS FINDINGS

After reviewing the Environmental Study Request and conducting a desktop and field review for the proposed work, it has been determined that no biological permits/certifications from the United States Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, U.S. Army Corps of Engineers, or the North Coast Regional Water Quality Control Board would be required.

Caltrans has determined the project would have "*no effect*" on the following federally listed and proposed species or their associated Critical Habitat or Essential Fish Habitat due to the nature of the project and/or absence of suitable habitat within or adjacent to the project site:

- Menzies' wallflower (*Erysimum menziesii*)
- Beach layia (*Layia carnosa*)
- Western lily (*Lilium occidentale*)
- California condor (*Gymnogyps californianus*)

- California Ridgway's rail (*Rallus obsoletus obsoletus*)
- Marbled murrelet (*Brachyramphus marmoratus*)
- Northern spotted owl (*Strix occidentalis caurina*)
- Western snowy plover (*Charadrius nivosus ssp. nivosus*)–Pacific Coast DPS
- Yellow-billed cuckoo (*Coccyzus americanus*)–Western DPS
- Chinook salmon (*Oncorhynchus tshawytscha*)–California Coastal ESU (pop. 17)
- Coho salmon (*Oncorhynchus kisutch*)–Southern Oregon/Northern California Coast ESU (pop. 2)
- Eulachon (*Thaleichthys pacificus*)
- Green sturgeon (*Acipenser medirostris)*–southern DPS
- Steelhead (*Oncorhynchus mykiss irideus)*–Northern California DPS (pop. 16)
- Steelhead (*Oncorhynchus mykiss irideus)*–Northern California summer-run DPS (pop. 48)
- Steelhead (*Oncorhynchus mykiss irideus)*–Northern California winter-run DPS*)* (pop. 49)
- Tidewater goby (*Eucyclogobius newberryi*)
- Humboldt (Pacific) marten (*Martes caurina humboldtensis)*
- Blue whale (*Balaenoptera musculus*)
- Fin whale (*Balaenoptera physalus)*
- Humpback whale (*Megaptera novaeangliae*)
- North Pacific right whale (*Eubalaena japonica*)
- Sei whale *(Balaenoptera borealis*)
- Southern Resident killer whale *(Orcinus orca)*
- Sperm whale *(Physeter macrocephalus)*
- Green sea turtle (*Chelonia mydas*)–East Pacific DPS
- Leatherback sea turtle (*Dermochelys coriacea)*
- Olive Ridley sea turtle (*Lepidochelys olivacea*)

Caltrans has also determined this project would have "*no take*" of any fully protected, state listed or special status species, critical habitat, natural communities of special concern, or any species that are proposed for state listing.

- Menzies' wallflower (*Erysimum menziesii*)
- Beach layia (*Layia carnosa*)
- Western lily (*Lilium occidentale*)
- American peregrine falcon (*Falco peregrinus anatum*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Bank swallow (*Riparia riparia*)
- California condor (*Gymnogyps californianus*)
- California Ridgway's rail (*Rallus obsoletus obsoletus*)
- Marbled murrelet (*Brachyramphus marmoratus*)
- Northern spotted owl (*Strix occidentalis caurina*)
- White-tailed kite (*Elanus leucurus*)
- Yellow-billed cuckoo–Western DPS (*Coccyzus americanus*)
- Coho salmon (*Oncorhynchus kisutch*)–Southern Oregon/Northern California Coast ESU (pop. 2)
- Longfin smelt (*Spirinchus thaleichthys*)
- Steelhead (*Oncorhynchus mykiss irideus)*–Northern California DPS summer-run
- Crotch bumble bee (*Bombus crotchii*)
- Western bumble bee (*Bombus occidentalis*)
- Pacific (Humboldt) marten (*Martes caurina humboldtensis*)–Coastal DPS
- Ringtail (*Bassariscus astutus*)

CONCLUSION

The project location has no suitable habitat present for federally or state endangered, threatened, candidate, or proposed species. No wetlands and jurisdictional water features are present within or adjacent to the project location. Therefore, it has been determined that no biological permits/certifications from the United States Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, U.S. Army Corps of Engineers, or the North Coast Regional Water Quality Control Board would be required.

If there are any changes to the project scope and/or schedule, Environmental staff needs to be contacted so that additional surveys, consultations, and permits can be conducted or obtained. **If any changes or additional work is added to the project at a later date, then this Biological Memo would no longer be considered valid and a new Biological Memo would be required.**

If you have any questions regarding this memo, please contact me at (707) 815-5961 or at Dominic.moore@dot.ca.gov

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ATTACHMENTS

Attachment A: Vicinity Map with CNDDB and NWI Results

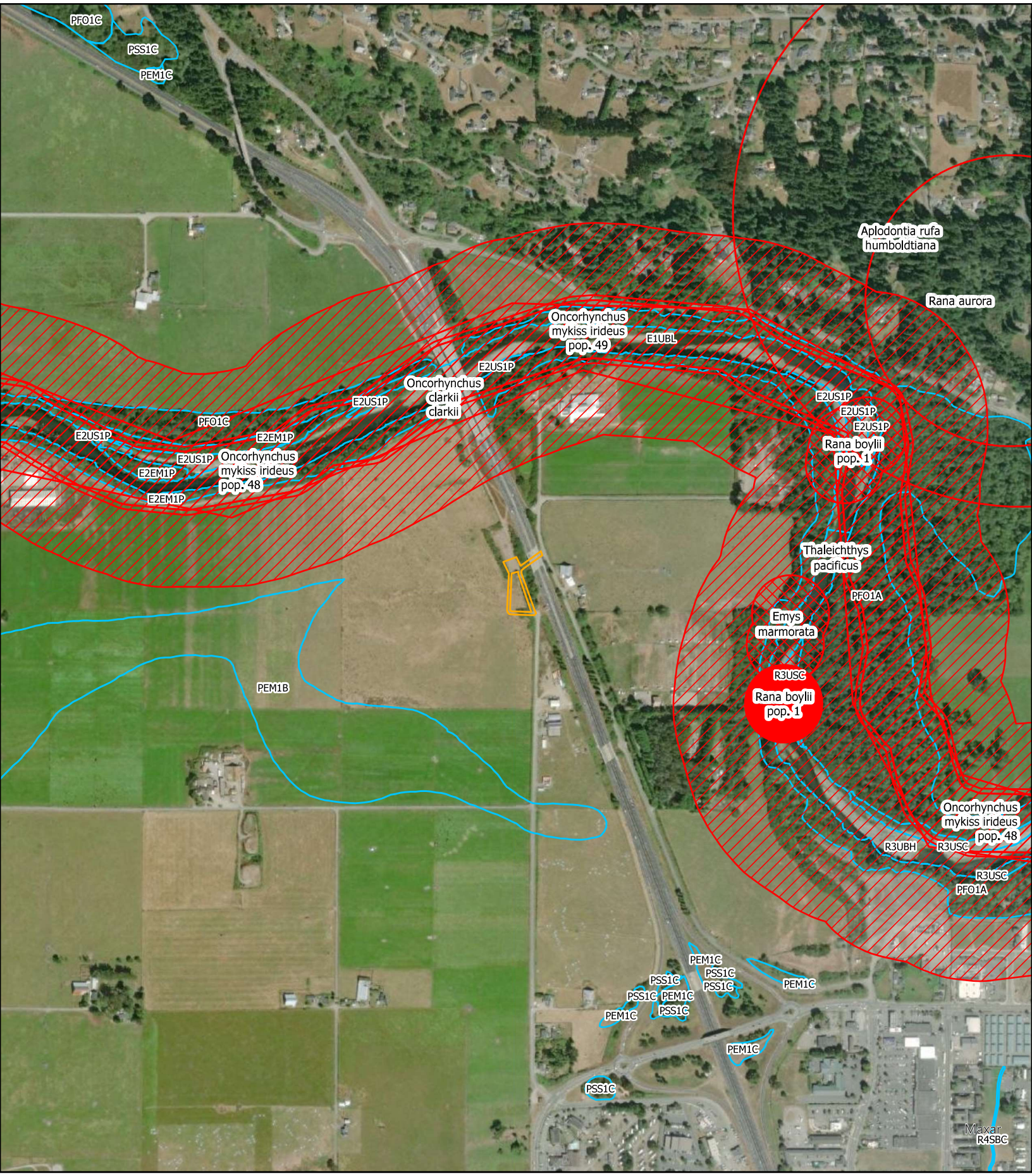
Attachment B: Species Table: Listed and Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur within the Project Area.

Attachment C: CNDDB Species List

Attachment D: CNPS 9-Quad Query Results

Attachment E: USFWS Species List

Attachment F: NMFS Species List



CNDDB Occurrence and NWI Results
Caltrans District 1
Boyd Draw Bike Path Project
01-HUM-101-PM 89.4
EA: 01-0K510
EFIS: 0120000108
Date: May, 2023

ESL
Animal (80m)
Animal (specific)
Animal (non-specific)
Animal (circular)
Animal (circular)
NWI District 1
*Cowardin Classification

0 375 750 1,500 Feet

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Scientific Name	Common Name	Legal Status Federal/ State/ CRPR	General Habitat Description/ Flowering Period	Habitat Present/ Absent	Potential for Occurrence and Rationale
PLANTS					
Abronia umbellata var. *breviflora*	Pink sand-verbena	--/--/1B.1	Coastal strand, coastal dunes, disturbed sandy areas. 0–35 ft (elevation); June–October (bloom period)	Absent	No suitable coastal sandy habitat proposed for disturbance within the ESL.
Angelica lucida	Sea-watch	--/--/4.2	Coastal bluff scrub, coastal dunes, marshes, and swamps. 0–490 ft. April–September	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Astragalus pycnostachyus var. *pycnostachyus*	Coastal marsh milk-vetch	--/--/1B.2	Coastal dunes, scrub, marshes, swamps and streamsides. 0–100 ft. (April) June–October	Present	Potentially suitable habitat within the ESL; not detected during botanical surveys.
Astragalus rattanii var. *rattanii*	Rattan's milk-vetch	--/--/4.3	Chaparral, cismontane woodland, lower montane coniferous forest, gravelly streambanks. 100–2,705 ft. April–July	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Calamagrostis bolanderi	Bolander's reed grass	--/--/4.2	Bogs and fens, broadleafed upland forest, closed cone coniferous forest. Coastal scrub, marshes and swamps, meadows and seeps, North Coast coniferous forest. 0–1,495 ft. May–August	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Cardamine angulata	Seaside bittercress	--/--/2B.1	Lower montane coniferous forest, North Coast coniferous forest (streambanks). 50–3,000 ft. (Jan) March–July	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Carex arcta	Northern clustered sedge	--/--/2B.2	Bogs and fens, North Coast coniferous forest. 195–4,595 ft. June-September	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Carex buxbaumii	Buxbaum's sedge	--/--/4.2	Bogs and fens, marshes and swamps, meadows, and seeps. 10–10,825 ft. March–August	Present	Potentially suitable habitat within the ESL; not detected during surveys.

Scientific Name	Common Name	Legal Status Federal/ State/ CRPR	General Habitat Description/ Flowering Period	Habitat Present/ Absent	Potential for Occurrence and Rationale
Carex lenticularis var. *limnophila*	Lagoon sedge	--/--/2B.2	Bogs and fens, marshes and swamps, North Coast coniferous forest often gravelly. 0–20 ft. June–August	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Carex leptalea	Bristle-stalked sedge	--/--/2B.2	Bogs and fens, marshes and swamps, meadows, and seeps. 0–2,295 ft. March–July	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Carex lyngbyei	Lyngbye's sedge	--/--/2B.2	Marshes and swamps (brackish and freshwater). 0–35 ft. April–August	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Carex praticola	Northern meadow sedge	--/--/2B.2	North Coast coniferous forest, coastal prairie, meadows, and seeps. 0–10,500 ft. May–July	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Carex saliniformis	Deceiving sedge	--/--/1B.2	Coastal prairie, coastal scrub, marshes and swamps, meadows, and seeps. 10–755 ft. June (July)	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Carex scabriuscula	Siskiyou sedge	--/--/4.3	Montane coniferous forest, meadows, seeps, and sometimes serpentinite soils. 2,330–7,695 ft. May–July	Absent	Outside of elevation range.
Carex serpenticola	Serpentine sedge	--/--/2B.3	Meadows and seeps, mesic, serpentinite. 195–3,935 ft. March–May	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Carex viridula ssp. *viridula*	Green-yellow sedge	--/--/2B.3	Bogs, fens, marshes, swamps, and North Coast coniferous forests. 0–5,250 ft. Jun (July)–September (November)	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Castilleja ambigua var. *humboldtiensis*	Humboldt Bay owl's-clover	--/--/1B.2	Marshes and swamps. 0–10 ft. April–August	Present	Potentially suitable habitat within the ESL; not detected during surveys.

Scientific Name	Common Name	Legal Status Federal/ State/ CRPR	General Habitat Description/ Flowering Period	Habitat Present/ Absent	Potential for Occurrence and Rationale
Castilleja litoralis	Oregon coast paintbrush	--/--/2B.2	Coastal bluff scrub, dunes, and scrub, sandy soils. 50–330 ft. June	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Castilleja mendocinensis	Mendocino Coast paintbrush	--/--/1B.2	Closed-cone coniferous forest, coastal bluff, scrub, dunes, and prairie. 0–525 ft. April–August	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Chloropyron maritimum ssp. *palustre*	Point Reyes salty bird's-beak	--/--/1B.2	Marshes, swamps, and wetlands. 0–35 ft. June–October	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Chrysosplenium glechomifolium	Pacific golden saxifrage	--/--/4.3	North Coast coniferous forest, seeps, riparian forest streambanks, and sometimes roadsides. 35–720 ft. February–June	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Collinsia corymbosa	Round-headed Chinese-houses	--/--/1B.2	Coastal dunes. 0–65 ft. April–June	Absent	No suitable coastal sandy habitat proposed for disturbance in the ESL; not detected during surveys.
Coptis laciniata	Oregon goldthread	--/--/4.2	Meadows and seeps, North Coast coniferous forest, sometimes streambanks. 490–7,070 ft. (Feb) Mar–May (Sept–Nov)	Absent	No occurrences within the ESL range; not detected during surveys.
Discelium nudum	Naked flag moss	--/--/2B.2	Coastal bluff scrub, clay banks. 100–6,265 ft.	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Eleocharis parvula	Small spikerush	--/--/4.3	Coastal salt marshes and swamps. 5–9,910 ft. (Apr) June–Aug (Sep)	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Empetrum nigrum	Black crowberry	--/--/2B.2	Coastal bluff scrub, coastal prairie. 35–655 ft. April–June	Present	Potentially suitable habitat within the ESL; not detected during surveys.

Scientific Name	Common Name	Legal Status Federal/ State/ CRPR	General Habitat Description/ Flowering Period	Habitat Present/ Absent	Potential for Occurrence and Rationale
Epilobium septentrionale	Humboldt County fuchsia	--/--/4.3	Broadleafed upland forest, North Coast coniferous forest, sometimes rocky or sandy soils. 150–5,905 ft. July–September.	Absent	No suitable habitat within the ESL; no occurrences recorded within the Humboldt Coastal Zone.
Erysimum menziesii	Menzies' wallflower	FE/SE/1B.1	Coastal dunes. 0–115 ft. March–September	Absent	No suitable coastal dune habitat within the ESL; not detected during surveys.
Erythronium oregonum	Giant fawn lily	--/--/2B.2	Cismontane woodland, meadows and seeps, openings on rocky sometimes serpentinite soils. 330–3,775 ft.; May-June (July)	Absent	No suitable habitat within the ESL; no occurrences recorded within the Humboldt Coastal Zone.
Erythronium revolutum	Coast fawn lily	--/--/2B.2	Bogs and fens, broadleafed upland forest, North Coast coniferous forest, streambanks. 0–5,250 ft. May–July	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Fissidens pauperculus	Minute pocket moss	--/--/1B.2	North Coast coniferous forest, damp coastal soils. 5–3,360 ft.	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Fritillaria purdyi	Purdy's fritillary	--/--/4.3	Chaparral, cismontane woodland, lower montane coniferous forest, usually serpentinite. 575–7,400 ft. March–June	Absent	No suitable habitat within the ESL; no occurrences recorded within the Humboldt Coastal Zone.
Gilia capitata ssp. *pacifica*	Pacific gilia	--/--/1B.2	Chaparral, valley and foothill grasslands, coastal bluff scrub and prairies. 15–5,465 ft. April–August	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Gilia millefoliata	Dark-eyed gilia	--/--/1B.2	Coastal bluff scrub and prairies, valley and foothill grasslands, chaparral openings. 5–100 ft. April–July	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Glehnia littoralis ssp. *leiocarpa*	American glehnia	--/--/4.2	Coastal dunes. 0–65 ft. May–August	Absent	No suitable dune habitat within the ESL; not detected during surveys.

Scientific Name	Common Name	Legal Status Federal/ State/ CRPR	General Habitat Description/ Flowering Period	Habitat Present/ Absent	Potential for Occurrence and Rationale
Hemizonia congesta ssp. *tracyi*	Tracy's tarplant	--/--/4.3	Coastal prairie, lower montane coniferous forest, North Coast coniferous forest, openings, sometimes serpentinite. 395–3,935 ft. (Mar) May–October	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Hesperevax sparsiflora var. *brevifolia*	Short-leaved evax	--/--/1B.2	Coastal bluff scrub, dunes, and prairies. 0–705 ft. March–June	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Hosackia gracilis	Harlequin lotus	--/--/4.2	Broadleafed upland forest, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, prairie, scrub, marshes and swamps, meadows and seeps, North Coast coniferous forest, valley and foothill grassland, roadsides. 0–2,295 ft. March–August	Present	Potential suitable habitat within the ESL; not detected during surveys.
Iliamna latibracteata	California globe mallow	--/--/1B.2	Chaparral, lower montane coniferous forest, North Coast coniferous forest, riparian scrub, often burned areas. 195–6,560 ft. June–August	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Juncus nevadensis var. *inventus*	Sierra rush	--/--/2B.2	Bogs and fens. 0–35 ft. (July–November)	Present	Potentially suitable habitat within ESL; not detected during surveys.
Lasthenia californica ssp. *macrantha*	Perennial goldfields	--/--/1B.2	Coastal bluff scrub, dunes, and scrub. 15–1,705 ft. January–November	Present	Potentially suitable habitat within the ESL; not detected during surveys.
Lathyrus glandulosus	Sticky pea	--/--/4.3	Cismontane woodland. 985–2,625 ft. April–June	Absent	No suitable habitat within the ESL; no occurrences recorded within the Humboldt Coastal Zone.
Lathyrus japonicus	Seaside pea	--/--/2B.1	Coastal dunes. 5–100 ft. May-August	Absent	No suitable dune habitat within the ESL; not detected during surveys.

Scientific Name	Common Name	Legal Status Federal/ State/ CRPR	General Habitat Description/ Flowering Period	Habitat Present/ Absent	Potential for Occurrence and Rationale
Lathyrus palustris	Marsh pea	--/--/2B.2	Bogs and fens, coastal prairie, scrub, lower montane coniferous forest, marshes, swamps, and North Coast coniferous forest. 5–330 ft. March–August	Present	Potential suitable habitat within the ESL; not detected during surveys.
Layia carnosa	Beach layia	FT/SE/1B.1	Coastal dunes, and scrub sandy soils. 0–195 ft. March–July	Absent	No suitable dune habitat within the ESL; not detected during surveys.
Lilium kelloggii	Kellogg's lily	--/--/4.3	Lower montane coniferous forest, North Coast coniferous forest openings, roadsides. 10–4,265 ft. May–August	Present	Potential suitable habitat within the ESL; not detected during surveys.
Lilium occidentale	Western lily	FE/SE/1B.1	Bogs and fens, coastal bluff, scrub, prairie, marshes, swamps, North Coast coniferous forest. 5–605 ft. June–July	Present	Potential suitable habitat within the ESL; not detected during surveys.
Listera cordata	Heart-leaved twayblade	--/--/4.2	Bogs, fens, lower montane coniferous forest, North Coast coniferous forest. 15–4,495 ft. February–July	Present	Potential suitable habitat within the ESL; not detected during surveys.
Lycopodiella inundata	Inundated bog-clubmoss	--/--/2B.2	Bogs, fens, lower montane coniferous forest, marshes, and swamps. 15–3,280 ft. June–September	Present	Potential suitable habitat within the ESL; not detected during surveys.
Lycopodium clavatum	Running pine	--/--/4.1	Lower montane coniferous forest, marshes, swamps, North Coast coniferous forest, often edges, openings, or roadsides 150–4,020 ft. June–August (September)	Present	Potential suitable habitat within the ESL; not detected during surveys.
Lycopus uniflorus	Northern bugleweed	--/--/4.3	Bogs, fens, marshes, and swamps. 15–6,560 ft. July–September	Present	Potential suitable habitat within the ESL; not detected during surveys.

Scientific Name	Common Name	Legal Status Federal/ State/ CRPR	General Habitat Description/ Flowering Period	Habitat Present/ Absent	Potential for Occurrence and Rationale
Mitellastra caulescens	Leafy-stemmed mitrewort	--/--/4.2	Broadleafed upland forest, North Coast coniferous forest, lower montane coniferous forest, meadows, seeps, and sometimes roadsides. 15–5,580 ft. (March) April–October	Present	Potential suitable habitat within the ESL; not detected during surveys.
Monotropa uniflora	Ghost-pipe	--/--/2B.2	Broadleafed upland forest, North Coast coniferous forest. 35–1,805 ft. June–August (September)	Present	Potential suitable habitat within the ESL; not detected during surveys.
Montia howellii	Howell's montia	--/--/2B.2	Meadows, seeps, vernal pools, North Coast coniferous forest, and sometimes roadsides. 0–2,740 ft. (February) March–May	Present	Potential suitable habitat within the ESL; not detected during surveys.
Oenothera wolfii	Wolf's evening-primrose	--/--/1B.1	Coastal bluff scrub, dunes, prairie, lower montane coniferous forest. 10–2,625 ft. May–October	Present	Potential suitable habitat within the ESL; not detected during surveys.
Packera bolanderi var. *bolanderi*	Seacoast ragwort	--/--/2B.2	Coastal scrub, North Coast coniferous forest. 100–2,135 ft. (January–April) May–July (August)	Present	Potential suitable habitat within the ESL; not detected during surveys.
Piperia candida	White-flowered rein orchid	--/--/1B.2	Broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest. 100–4,300 ft. (March) May–September	Absent	No suitable habitat within the ESL; no occurrences recorded within the Humboldt Coastal Zone.
Pityopus californicus	California pinefoot	--/--/4.2	Broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest, upper montane coniferous forest. 50–7,300 ft. (March–April) May–August	Present	Potential suitable habitat within the ESL; not detected during surveys.
Pleuropogon refractus	Nodding semaphore grass	--/--/4.2	Lower montane coniferous forest, meadows, seeps, North Coast coniferous forest, and riparian forests. 0–5,250 ft. (March) April–August	Present	Potential suitable habitat within the ESL; not detected during surveys.

Scientific Name	Common Name	Legal Status Federal/ State/ CRPR	General Habitat Description/ Flowering Period	Habitat Present/ Absent	Potential for Occurrence and Rationale
Polemonium carneum	Oregon polemonium	--/--/2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. 0–6,005 ft. April–September	Present	Potential suitable habitat within the ESL; not detected during surveys.
Ribes laxiflorum	Trailing black currant	--/--/4.3	North Coast coniferous forest. 15–4,575 March–July (August)	Present	Potential suitable habitat within the ESL; not detected during surveys.
Romanzoffia tracyi	Tracy's romanzoffia	--/--/2B.3	Coastal bluff scrub, scrub. 50–100 ft. March–May	Present	Potential suitable habitat within the ESL; not detected during surveys.
Sidalcea malachroides	Maple-leaved checkerbloom	--/--/4.2	Broadleafed upland forest, North Coast coniferous forest, riparian woodland, coastal prairie, and scrub. 0–2,395 ft. (March) April–August	Present	Potential suitable habitat within the ESL; not detected during surveys.
Sidalcea malviflora ssp. *patula*	Siskiyou checkerbloom	--/--/1B.2	North Coast coniferous forest, coastal bluff scrub, and prairie. 50–4,035 ft. (March) May–August	Present	Potential suitable habitat within the ESL; not detected during surveys.
Sidalcea oregana ssp. *eximia*	Coast checkerbloom	--/--/1B.2	Lower montane coniferous forest, meadows, seeps, and North Coast coniferous forest. 15–4,395 ft. June–August	Present	Potential suitable habitat within the ESL; not detected during surveys.
Silene scouleri ssp. *scouleri*	Scouler's catchfly	--/--/2B.2	Valley, foothill grassland, coastal bluff scrub, prairie. 0–1,970 ft. (March–May) June–August (September)	Present	Potential suitable habitat within the ESL; not detected during surveys.
Spergularia canadensis var. *occidentalis*	Western sand-spurrey	--/--/2B.1	Marshes and swamps (coastal salt). 0–10 ft. June–August	Present	Potential suitable habitat within the ESL; not detected during surveys.

Scientific Name	Common Name	Legal Status Federal/ State/ CRPR	General Habitat Description/ Flowering Period	Habitat Present/ Absent	Potential for Occurrence and Rationale
Sulcaria spiralifera	Twisted horsehair lichen	--/--/1B.2	North Coast coniferous forest (immediate coast). 0–295 ft.	Present	Potential suitable habitat within the ESL; not detected during surveys.
Tiarella trifoliata var. *trifoliata*	Trifoliate laceflower	--/--/3.2	Lower montane coniferous forest, North Coast coniferous forest. 560–4,920 ft. (May) June–August	Present	Potential suitable habitat within the ESL; not detected during surveys.
Trichodon cylindricus	Cylindrical trichodon	--/--/2B.2	Broadleafed upland forest, meadows, seeps, upper montane coniferous forest. 165–6,570 ft.	Present	Potential suitable habitat within the ESL; not detected during surveys.
Usnea longissima	Methuselah's beard lichen	--/--/4.2	Broadleafed upland forest, North Coast coniferous forest. 165–4,790 ft.	Present	Potential suitable habitat within the ESL; not detected during surveys.
Viola palustris	Alpine marsh violet	--/--/2B.2	Bogs, fens, and coastal scrub. 0–490 ft. March–August	Present	Potential suitable habitat within the ESL; not detected during surveys.

[1] ***Status:***

Federal status: FT = Federal Threatened; FE = Endangered; FCT = Federal Candidate Threatened; FCE = Federal Candidate Endangered

State status: ST = State Threatened; SE = State Endangered; SCE: State Candidate Endangered; FP = Fully Protected; SR = State Rare

CH = Critical Habitat

California Rare Plant Rank (CRPR): 1B = rare, threatened, or endangered in California and elsewhere; 2B = rare, threatened, or endangered in California but more common elsewhere; 3 = more information is needed (Review List); 4 = limited distribution (Watch List)

CRPR Threat Ranking: 0.1 = seriously endangered in California, 0.2 = fairly endangered in California, 0.3 = not very endangered in California.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
AMPHIBIANS					
Foothill yellow-legged frog–North Coast Distinct Population Segment (DPS) (pop. 1)	*Rana boylii*	--/SSC	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs some cobble-sized substrate for egg-laying.	Absent	No suitable aquatic habitat within the ESL.
Northern red-legged frog	*Rana aurora*	--/SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	Absent	No suitable aquatic habitat within the ESL.
Pacific tailed frog	*Ascaphus truei*	--/SSC	Restricted to perennial montane streams in montane hardwood-conifer habitats. Tadpoles require water below 59ºF (15ºC).	Absent	No suitable aquatic habitat within the ESL.
Southern torrent salamander	*Rhyacotriton variegatus*	--/SSC	Old-growth coniferous and hardwood forest. Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rock within trickling water.	Absent	No suitable aquatic habitat within the ESL.
BIRDS					
American peregrine falcon	*Falco peregrinus anatum*	DL/FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dune mounds. also, humanmade structures. Nest consists of a scrape, depression or ledge in an open site.	Absent	No suitable habitat within the ESL.
Bald eagle	*Haliaeetus leucocephalus*	DL/SE, FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live trees with open branches, especially ponderosa pine. Roosts communally in winter.	Absent	No suitable habitat within the ESL.
Bank swallow	*Riparia riparia*	--/ST	Colonial nester; primarily in riparian and lowland areas. Digs nests in vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, or ocean.	Absent	No suitable riparian habitat within the ESL.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
California condor	*Gymnogyps californianus*	FE/SE, FP	Experimental population. California condors use vast expanses of varying habitats for foraging, roosting, and nesting. Condors roost on large trees or snags, or on rocky outcrops and cliffs. Nests are in caves and ledges of steep rocky terrain or in cavities and broken tops of old-growth conifers such as coast redwood and, historically, the giant sequoia. Forages up to 100 miles from roost/nest.	Absent	No suitable habitat within the ESL.
California Ridgway's rail	*Rallus obsoletus obsoletus*	FE/SE, FP	Brackish marsh, marsh, swamp, wetland, salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed but feeds away from cover on invertebrates from mud-bottomed sloughs.	Absent	No suitable slough or marsh habitat within the ESL.
Fork-tailed storm-petrel	*Hydrobates furcatus*	--/SSC	Protected deep water coastal communities, colonial nester on small, offshore islets. Forages over the open ocean, usually well offshore. Birds choose offshore islets which provide nesting crannies beneath rocks or sod for burrowing.	Absent	No suitable offshore habitat within the ESL.
Marbled murrelet	*Brachyramphus marmoratus*	FT/SE	Nests in old-growth coniferous forests along the coast from Santa Cruz north, up to 6 miles inland. Forages in nearshore ocean waters.	Absent	No suitable old-growth habitat within the ESL.
Mountain plover	*Charadrius montanus*	--/SSC	Chenopod scrub, valley and foothill grassland, short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Short vegetation, bare ground, and flat topography. Prefers grazed areas and areas with burrowing rodents.	Present	Potentially suitable habitat adjacent to the ESL. No suitable habitat within the construction area. No *take* would occur.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
Northern harrier	*Circus hudsonius*	--/SSC	Coastal scrub, Great Basin grassland, marsh and swamp, riparian scrub, valley and foothill grassland, wetland. Coastal salt and freshwater marsh. Nests and forages in grasslands, from salt grass in desert sink to mountain ciénagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Absent	No suitable nesting habitat within the ESL.
Northern spotted owl	*Strix occidentalis caurina*	FT/ST	Old-growth or mixed old-growth and mature trees. High, multistory canopy with big trees, many trees with cavities or broken tops, woody debris, and space under canopy.	Absent	No suitable old-growth habitat within the ESL.
Tufted puffin	*Fratercula cirrhata*	--/SSC	Protected deep water coastal communities, open-ocean bird, nests along the coast on islands, islets, or (rarely) mainland cliffs. Requires sod or earth into which the birds can burrow, on island cliffs or grassy island slopes.	Absent	No coastal island habitat within the ESL.
Western snowy plover–Pacific Coast DPS	*Charadrius nivosus nivosus*	FT/SSC	Breeds above the high tide line on coastal beaches, sand spits, dune backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and small pans at lagoons estuaries; rarely observed along lower perennial gravel bars.	Absent	No suitable beach or dune habitat within the ESL.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
White–tailed kite	*Elanus leucurus*	--/FP	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, wetland, rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Absent	No suitable habitat within the ESL.
Yellow-billed cuckoo–Western U.S. DPS	*Coccyzus americanus occidentalis*	FT/SE	Wide, dense riparian forests with a thick understory of willows for nesting sites with a dominant cottonwood overstory preferred for foraging.	Absent	No suitable dense riparian forest habitat within the ESL.
Yellow rail	*Coturnicops noveboracensis*	--/SSC	Freshwater marsh, meadow and seep, summer resident in eastern Sierra Nevada in Mono County.	Absent	No suitable habitat within the ESL.
FISH					
Chinook salmon–California Coastal Evolutionarily Significant Unit (ESU) (pop. 17)	*Oncorhynchus tshawytscha*	FT/--	Requires cold, clean water and gravel for spawning and rearing, with cover for velocity and predator refuge. This ESU includes coastal rivers and streams from Redwood Creek (Humboldt County) to the Russian River (Sonoma County). This ESU includes naturally spawned Chinook salmon originating from rivers and streams south of the Klamath River to and including the Russian River.	Absent/ CH Absent/ EFH Absent	No suitable aquatic habitat, critical habitat or essential fish habitat within the BSA.
Coastal cutthroat trout	*Oncorhynchus clarkii clarkii*	--/SSC	Small, low-gradient coastal streams and estuaries. Needs shaded streams with water temperatures <64.4ºF (18ºC), and small gravel for spawning.	Absent	No suitable aquatic habitat within the ESL.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
Coho salmon– Southern Oregon/Northern California Coast ESU (pop. 2)	*Oncorhynchus kisutch*	FT/ST	Requires cold, clean water and gravel for spawning and rearing, with cover for velocity and predator refuge. This ESU includes coho salmon populations between Punta Gorda, California, and Cape Blanco, Oregon.	Absent/ CH Absent/ EFH Absent	No suitable aquatic habitat, critical habitat or essential fish habitat within the BSA.
(Pacific) eulachon– Southern DPS	*Thaleichthys pacificus*	FT/--	Klamath/North Coast flowing waters, found in Klamath River, Mad River, Redwood Creek, and in small numbers in Smith River and Humboldt Bay tributaries. Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand, and woody debris, and freshwater marshlands.	Absent/ CH Absent	No suitable aquatic habitat or critical habitat within the BSA.
Green sturgeon– Southern DPS (pop.1)	*Acipenser medirostris*	FT/--	These are the most marine species of sturgeon. Klamath/North Coast flowing waters, Sacramento/San Joaquin flowing waters. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, and Trinity rivers. Spawns at temperatures between 46.4-57.2°F. Preferred spawning substrate is large cobble but can range from clean sand to bedrock.	Absent/ CH Absent	No suitable aquatic habitat or critical habitat within the BSA.
Longfin smelt	*Spirinchus thaleichthys*	--/ST	Estuary, euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities of 15-30 parts per thousand (ppt) but can be found in completely fresh water to almost pure sea water.	Absent	No suitable aquatic habitat within the ESL.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
Pacific lamprey	*Entosphenus tridentatus*	--/SSC	Found in Pacific Coast streams north of San Luis Obispo County. Swift current, gravel-bottomed areas for spawning with water temps between 54-64°F (12-18°C). Ammocoetes need soft sand or mud.	Absent	No suitable aquatic habitat within the ESL.
Steelhead–Northern California (NC) Distinct Population Segment (DPS) (pop.16)	*Oncorhynchus mykiss irideus*	FT/--	Coastal basins from Redwood Creek south to the Gualala River.	Absent/ CH Absent	No suitable aquatic habitat or critical habitat within the BSA.
Steelhead–Northern California DPS summer-run (pop. 48)	*Oncorhynchus mykiss irideus*	FT/SE	Northern California coastal streams south to Middle Fork Eel River. Cool, swift, shallow water and clean loose gravel for spawning, and large pools to spend the summer.	Absent/ CH Absent	No suitable aquatic habitat or critical habitat within the BSA.
Steelhead–Northern California DPS winter-run (pop. 49)	*Oncorhynchus mykiss irideus*	FT/--	Naturally spawning population of the ocean-maturing winter-run ecotype. From Redwood Creek watershed south to and inclusive of Gualala River watershed.	Absent	No suitable aquatic habitat within the BSA.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
Tidewater goby	*Eucyclogobius newberryi*	FE/--	Klamath/North Coast flowing waters, Sacramento/San Joaquin flowing waters, South Coast flowing waters, brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches; they need fairly still but not stagnant water and high oxygen levels.	Absent	No suitable aquatic habitat within the BSA.
Western brook lamprey	*Lampetra richardsoni*	--/SSC	Typically found in large coastal rivers and their tributaries. Ammocoetes are typically found in slackwater areas or pools where they burrow tail first into soft substrate.	Absent	No suitable aquatic habitat within the ESL.
INVERTEBRATES					
Crotch bumble bee	*Bombus crotchii*	--/SCE	Coastal California east to the Sierra–Cascade crest and south into Mexico. Food plants include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum*.	Absent	No suitable habitat within the ESL. Historical occurrence 1.7 miles northwest of the ESL (1964).
Monarch butterfly	*Danaus plexippus*	FC/--	During breeding season, monarchs lay their eggs on their obligate milkweed host plant. In western North America individuals undergo long-distance migration to overwintering sites and breeding grounds.	Absent	No suitable milkweed habitat within the ESL.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
Western bumble bee	*Bombus occidentalis*	--/SCE	Typically nests underground in abandoned rodent burrows or other cavities, mostly in open west-southwest slopes bordered by trees, although a few nests have been reported from above-ground locations such as in logs and among railroad ties.	Absent	No suitable habitat within the ESL. Historical occurrence 1.7 miles south of the ESL (1976).
MAMMALS					
Fisher–West Coast DPS	*Pekania pennanti*	--/SSC	Intermediate to large stands of coniferous forests and deciduous riparian areas with high canopy closure. Uses cavities, snags, logs, and rocky areas for cover and denning. Needs large areas of mature, dense forest.	Absent	No suitable habitat within the ESL.
Pacific (Humboldt) marten–Coastal DPS	*Martes caurina humboldtensis*	FT/SE, SSC	Occurs only in the coastal redwood zone from the Oregon border south to Sonoma County. Associated with late-successional coniferous forests with low overhead cover.	Absent	No suitable habitat within the ESL.
Ringtail	*Bassariscus astutus*	--/FP	A mixture of forest and shrubland in close association with rocky areas or riparian habitats. Dens in rock recesses, hollow trees, logs, snags, abandoned borrows, or woodrat nests at low to middle elevations. Usually not found more than 0.6 mile (1 km) from permanent water.	Absent	No suitable habitat within the ESL.
Sonoma tree vole	*Arborimus pomo*	--/SSC	Coastal fog belt from Oregon border to Sonoma County. In montane hardwood-conifer forests. Feeds almost exclusively on Douglas-fir and grand fir (*Abies grandis*) needles.	Absent	No suitable habitat within the ESL.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
Townsend's big-eared bat	*Corynorhinus townsendii*	--/SSC	Throughout California in a variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roost sites are limited, very sensitive to human disturbance.	Absent	No suitable habitat within the ESL.
White-footed vole	*Arborimus albipes*	--/SSC	North Coast coniferous forest, redwood, riparian forest, mature coastal forests in Humboldt and Del Norte counties. Prefers areas near small, clear streams with dense alder and shrubs. Occupies the habitat from the ground surface to the canopy. Feeds in all layers and nests on the ground under logs or rock.	Absent	No suitable habitat within the ESL.
MARINE MAMMALS					
Blue whale	*Balaenoptera musculus*	FE/--	Migrates seasonally between summer feeding grounds on the U.S. West Coast and the Gulf of Alaska. Winter breeding grounds off the Mexico shore.	Absent	No habitat within the BSA.
Fin whale	*Balaenoptera physalus*	FE/--	Deep offshore waters in all major oceans, primarily in temperate to polar latitudes.	Absent	No habitat within the BSA.
Humpback whale	*Megaptera novaeangliae*	FE/--	Deep offshore waters in all major oceans, primarily in temperate to polar latitudes.	Absent	No habitat within the BSA.
North Pacific right whale	*Eubalaena japonica*	FE/--	Deep offshore waters in all major oceans, primarily in temperate to polar latitudes.	Absent	No habitat within the BSA.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale
Sei whale	*Balaenoptera borealis*	FE/--	Deep offshore waters in all major oceans.	Absent	No habitat within the BSA.
Southern resident killer whale	*Orcinus orca*	FE/--	Deep offshore waters in all major oceans.	Absent	No habitat within the BSA.
Sperm whale	*Physeter macrocephalus*	FE/--	Deep offshore waters in all major oceans.	Absent	No habitat within the BSA.
MARINE REPTILES					
Green sea turtle–East Pacific DPS	*Chelonia mydas*	FT/--	Oceanic beaches (for nesting), convergence zones in the open ocean, and benthic feeding grounds in coastal areas.	Absent	No habitat within the BSA.
Leatherback sea turtle	*Dermochelys coriacea*	FE/--	Open ocean, but also forages in coastal waters.	Absent	No habitat within the BSA.
Olive Ridley sea turtle	*Lepidochelys olivacea*	FT/--	Open ocean, but has been known to inhabit coastal areas, including bays and estuaries.	Absent	No habitat within the BSA.
REPTILES					
Western pond turtle	*Emys marmorata*	--/SSC	Ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation below 6,000 feet elevation. Needs basking sites and upland sandy banks or grassy open fields near water for egg-laying.	Absent	No suitable aquatic habitat within the ESL.

Common Name	*Scientific Name*	Legal Status Federal/ State	General Habitat Description	Habitat Present/ Absent/ CH/EFH	Potential for Occurrence and Rationale

[1] **Federal Status**: FE = Endangered; FPT = Proposed Threatened; FT = Threatened; FC = Candidate; DL = Delisted

State Status: SE = Endangered; ST = Threatened; SCT = Candidate Threatened; SCE = Candidate Endangered; FP = CDFW Fully Protected; SSC = CDFW Species of Special Concern; SR = State Rare

(*Source: CDFW-CNDDB 2023; USFWS 2023)*

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Arcata North (4012481) OR Trinidad (4112412) OR Crannell (4112411) OR Panther Creek (4112318) OR Blue Lake (4012388) OR Korbel (4012378) OR Arcata South (4012471) OR Eureka (4012472) OR Tyee City (4012482))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia umbellata var. breviflora pink sand-verbena	PDNYC010N4	None	None	G4G5T2	S2	1B.1
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
Anodonta californiensis California floater	IMBIV04220	None	None	G3Q	S2?	
Aplodontia rufa humboldtiana Humboldt mountain beaver	AMAFA01017	None	None	G5TNR	SNR	
Arborimus albipes white-footed vole	AMAFF23010	None	None	G3G4	S2	SSC
Arborimus pomo Sonoma tree vole	AMAFF23030	None	None	G3	S3	SSC
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Ascaphus truei Pacific tailed frog	AAABA01010	None	None	G4	S3S4	SSC
Astragalus pycnostachyus var. pycnostachyus coastal marsh milk-vetch	PDFAB0F7B2	None	None	G2T2	S2	1B.2
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus occidentalis western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
Cardamine angulata seaside bittercress	PDBRA0K010	None	None	G4G5	S3	2B.1
Carex arcta northern clustered sedge	PMCYP030X0	None	None	G5	S1	2B.2
Carex lenticularis var. limnophila lagoon sedge	PMCYP037A7	None	None	G5T5	S1	2B.2
Carex leptalea bristle-stalked sedge	PMCYP037E0	None	None	G5	S1	2B.2
Carex lyngbyei Lyngbye's sedge	PMCYP037Y0	None	None	G5	S3	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Carex praticola northern meadow sedge	PMCYP03B20	None	None	G5	S2	2B.2
Carex viridula ssp. viridula green yellow sedge	PMCYP03EM5	None	None	G5T5	S2	2B.3
Castilleja ambigua var. humboldtiensis Humboldt Bay owl's-clover	PDSCR0D402	None	None	G4T2	S2	1B.2
Castilleja litoralis Oregon coast paintbrush	PDSCR0D012	None	None	G3	S3	2B.2
Castilleja mendocinensis Mendocino Coast paintbrush	PDSCR0D3N0	None	None	G2	S2	1B.2
Cerorhinca monocerata rhinoceros auklet	ABNNN11010	None	None	G5	S3	WL
Charadrius montanus mountain plover	ABNNB03100	None	None	G3	S2S3	SSC
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Collinsia corymbosa round-headed collinsia	PDSCR0H060	None	None	G1	S1	1B.2
Coptis laciniata Oregon goldthread	PDRAN0A020	None	None	G4?	S3?	4.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Discelium nudum naked flag moss	NBMUS2E010	None	None	G4G5	S1	2B.2
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empetrum nigrum black crowberry	PDEMP03020	None	None	G5	S1?	2B.2
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Entosphenus tridentatus Pacific lamprey	AFBAA02100	None	None	G4	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Erysimum menziesii Menzies' wallflower	PDBRA160R0	Endangered	Endangered	G1	S1	1B.1
Erythronium oregonum giant fawn lily	PMLIL0U0C0	None	None	G5	S2	2B.2
Erythronium revolutum coast fawn lily	PMLIL0U0F0	None	None	G4G5	S3	2B.2
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	
Eumetopias jubatus Steller sea lion	AMAJC03010	Delisted	None	G3	S2	
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Fissidens pauperculus minute pocket moss	NBMUS2W0U0	None	None	G3?	S2	1B.2
Fratercula cirrhata tufted puffin	ABNNN12010	None	None	G5	S1S2	SSC
Gilia capitata ssp. pacifica Pacific gilia	PDPLM040B6	None	None	G5T3	S2	1B.2
Gilia millefoliata dark-eyed gilia	PDPLM04130	None	None	G2	S2	1B.2
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Hesperevax sparsiflora var. brevifolia short-leaved evax	PDASTE5011	None	None	G4T3	S3	1B.2
Hydrobates furcatus fork-tailed storm-petrel	ABNDC04010	None	None	G5	S1	SSC
Iliamna latibracteata California globe mallow	PDMAL0K040	None	None	G2G3	S2	1B.2
Juncus nevadensis var. inventus Sierra rush	PMJUN011Z5	None	None	G5T3T4	S1	2B.2
Lampetra richardsoni western brook lamprey	AFBAA02180	None	None	G4G5	S3S4	SSC
Lasthenia californica ssp. macrantha perennial goldfields	PDAST5L0C5	None	None	G3T2	S2	1B.2
Lathyrus japonicus seaside pea	PDFAB250C0	None	None	G5	S2	2B.1
Lathyrus palustris marsh pea	PDFAB250P0	None	None	G5	S2	2B.2
Layia carnosa beach layia	PDAST5N010	Threatened	Endangered	G2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Lilium occidentale western lily	PMLIL1A0G0	Endangered	Endangered	G1G2	S1	1B.1
Lycopodiella inundata inundated bog-clubmoss	PPLYC03060	None	None	G5	S1	2B.2
Lycopodium clavatum running-pine	PPLYC01080	None	None	G5	S3	4.1
Margaritifera falcata western pearlshell	IMBIV27020	None	None	G4G5	S1S2	
Mitellastra caulescens leafy-stemmed mitrewort	PDSAX0N020	None	None	G5	S4	4.2
Monotropa uniflora ghost-pipe	PDMON03030	None	None	G5	S2	2B.2
Montia howellii Howell's montia	PDPOR05070	None	None	G3G4	S2	2B.2
Myotis evotis long-eared myotis	AMACC01070	None	None	G5	S3	
Nannopterum auritum double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
Northern Foredune Grassland Northern Foredune Grassland	CTT21211CA	None	None	G1	S1.1	
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Oenothera wolfii Wolf's evening-primrose	PDONA0C1K0	None	None	G2	S1	1B.1
Oncorhynchus clarkii clarkii coast cutthroat trout	AFCHA0208A	None	None	G5T4	S3	SSC
Oncorhynchus kisutch pop. 2 coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	G5T2Q	S2	
Oncorhynchus mykiss irideus pop. 48 steelhead - northern California DPS summer-run	AFCHA0213P	Threatened	Endangered	G5T2Q	S2	
Oncorhynchus mykiss irideus pop. 49 steelhead - northern California DPS winter-run	AFCHA0213Q	Threatened	None	G5T3Q	S3	
Packera bolanderi var. bolanderi seacoast ragwort	PDAST8H0H1	None	None	G4T4	S2S3	2B.2
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Pekania pennanti Fisher	AMAJF01020	None	None	G5	S2S3	SSC
Piperia candida white-flowered rein orchid	PMORC1X050	None	None	G3?	S3	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Plethodon elongatus Del Norte salamander	AAAAD12050	None	None	G4	S3	WL
Polemonium carneum Oregon polemonium	PDPLM0E050	None	None	G3G4	S2	2B.2
Rallus obsoletus obsoletus California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S2	FP
Rana aurora northern red-legged frog	AAABH01021	None	None	G4	S3	SSC
Rana boylii pop. 1 foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	G3T4	S4	SSC
Rhyacotriton variegatus southern torrent salamander	AAAAJ01020	None	None	G3?	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S3	
Romanzoffia tracyi Tracy's romanzoffia	PDHYD0E030	None	None	G4	S2	2B.3
Scaphinotus behrensi Behrens' snail-eating beetle	IICOL4L070	None	None	G2G4	S2S4	
Sidalcea malachroides maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
Sidalcea malviflora ssp. patula Siskiyou checkerbloom	PDMAL110F9	None	None	G5T2	S2	1B.2
Sidalcea oregana ssp. eximia coast checkerbloom	PDMAL110K9	None	None	G5T1	S1	1B.2
Silene scouleri ssp. scouleri Scouler's catchfly	PDCAR0U1MC	None	None	G5T4T5	S2S3	2B.2
Sitka Spruce Forest Sitka Spruce Forest	CTT82110CA	None	None	G1	S1.1	
Spergularia canadensis var. occidentalis western sand-spurrey	PDCAR0W032	None	None	G5T4	S1	2B.1
Sphagnum Bog Sphagnum Bog	CTT51110CA	None	None	G3	S1.2	
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Sulcaria spiralifera twisted horsehair lichen	NLT0042560	None	None	G3G4	S2	1B.2
Thaleichthys pacificus eulachon	AFCHB04010	Threatened	None	G5	S1	
Trichodon cylindricus cylindrical trichodon	NBMUS7N020	None	None	G4G5	S2	2B.2
Usnea longissima Methuselah's beard lichen	NLLEC5P420	None	None	G4	S4	4.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Viola palustris alpine marsh violet	PDVIO041G0	None	None	G5	S1S2	2B.2

Record Count: 104

CNPS Rare Plant Inventory

Search Results

69 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**4012482:4112412:4112411:4012481:4112318:4012388:4012378:4012471:4012472**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	STATE RANK	CA RARE PLANT RANK	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)	PHOTO
Abronia umbellata var. *breviflora*	pink sand-verbena	Nyctaginaceae	annual herb	Jun-Oct	None	None	S2	1B.1	0	35	 ©2021 Scot Loring
Angelica lucida	sea-watch	Apiaceae	perennial herb	Apr-Sep	None	None	S3	4.2	0	490	 © 2022 Stillwater Sciences
Astragalus pycnostachyus var. *pycnostachyus*	coastal marsh milk-vetch	Fabaceae	perennial herb	(Apr)Jun-Oct	None	None	S2	1B.2	0	180	 ©2009 Neal Kramer
Astragalus rattanii var. *rattanii*	Rattan's milk-vetch	Fabaceae	perennial herb	Apr-Jul	None	None	S4	4.3	100	2705	No Photo Available
Calamagrostis bolanderi	Bolander's reed grass	Poaceae	perennial rhizomatous herb	May-Aug	None	None	S4	4.2	0	1495	 ©2009 Zoya Akulova
Cardamine angulata	seaside bittercress	Brassicaceae	perennial herb	(Jan)Mar-Jul	None	None	S3	2B.2	50	3000	 © 2021 Scot Loring

Carex arcta	northern clustered sedge	Cyperaceae	perennial herb	Jun-Sep	None	None	S1	2B.2	195	4595	 © 2006 Dean Wm. Taylor
Carex buxbaumii	Buxbaum's sedge	Cyperaceae	perennial rhizomatous herb	Mar-Aug	None	None	S3	4.2	10	10825	 © 2008 Dean Wm. Taylor, Ph.D.
Carex lenticularis var. *limnophila*	lagoon sedge	Cyperaceae	perennial herb	Jun-Aug	None	None	S1	2B.2	0	20	 ©2003 Steve Matson
Carex leptalea	bristle-stalked sedge	Cyperaceae	perennial rhizomatous herb	Mar-Jul	None	None	S1	2B.2	0	2295	 © 2003 Steve Matson
Carex lyngbyei	Lyngbye's sedge	Cyperaceae	perennial rhizomatous herb	Apr-Aug	None	None	S3	2B.2	0	35	 ©2017 Steve Matson
Carex praticola	northern meadow sedge	Cyperaceae	perennial herb	May-Jul	None	None	S2	2B.2	0	10500	 ©2013 Scot Loring
Carex viridula ssp. *viridula*	green yellow sedge	Cyperaceae	perennial herb	(Jun)Jul-Sep(Nov)	None	None	S2	2B.3	0	5250	 © 2015 Dana York

Castilleja ambigua var. *humboldtiensis*	Humboldt Bay owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	Apr-Aug	None	None	S2	1B.2	0	10	 ©2017 Steve Matson
Castilleja litoralis	Oregon coast paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Jun	None	None	S3	2B.2	50	330	 ©2010 Dana York
Castilleja mendocinensis	Mendocino Coast paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Apr-Aug	None	None	S2	1B.2	0	525	 ©2015 John Doyen
Chloropyron maritimum ssp. *palustre*	Point Reyes salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	None	None	S2	1B.2	0	35	 ©2017 John Doyen
Chrysosplenium glechomifolium	Pacific golden saxifrage	Saxifragaceae	perennial herb	Feb-Jun	None	None	S3	4.3	35	1770	 © 2021 Scot Loring
Collinsia corymbosa	round-headed collinsia	Plantaginaceae	annual herb	Apr-Jun	None	None	S1	1B.2	0	65	 ©2007 Steve Matson
Coptis laciniata	Oregon goldthread	Ranunculaceae	perennial rhizomatous herb	(Feb)Mar-May(Sep-Nov)	None	None	S3?	4.2	0	3280	 © 2021 Scot Loring
Discelium nudum	naked flag moss	Disceliaceae	ephemeral moss		None	None	S1	2B.2	35	165	No Photo Available
Eleocharis parvula	small spikerush	Cyperaceae	perennial herb	(Apr)Jun-Aug(Sep)	None	None	S3	4.3	5	9910	 ©2018 Ron Vanderhoff

Empetrum nigrum	black crowberry	Empetraceae	perennial evergreen shrub	Apr-Jun	None	None	S1?	2B.2	35	655	 ©2015 Dana York
Epilobium septentrionale	Humboldt County fuchsia	Onagraceae	perennial herb	Jul-Sep	None	None	S4	4.3	150	5905	 Image by BLM,Arcata Field Office
Erysimum menziesii	Menzies' wallflower	Brassicaceae	perennial herb	Mar-Sep	FE	CE	S1	1B.1	0	115	 ©2007 Steve Matson
Erythronium oregonum	giant fawn lily	Liliaceae	perennial herb	Mar-Jun(Jul)	None	None	S2	2B.2	330	3775	 ©2021 Scot Loring
Erythronium revolutum	coast fawn lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	None	None	S3	2B.2	0	5250	 ©2007 Steve Matson
Fissidens pauperculus	minute pocket moss	Fissidentaceae	moss		None	None	S2	1B.2	35	3360	 ©2021 Scot Loring
Fritillaria purdyi	Purdy's fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	S4	4.3	575	7400	 Aaron Schusteff, 2004
Gilia capitata ssp. *pacifica*	Pacific gilia	Polemoniaceae	annual herb	Apr-Aug	None	None	S2	1B.2	15	5465	 © 2016 Steve Matson
Gilia millefoliata	dark-eyed gilia	Polemoniaceae	annual herb	Apr-Jul	None	None	S2	1B.2	5	100	 © 2017 John Doyen

Glehnia littoralis ssp. *leiocarpa*	American glehnia	Apiaceae	perennial herb	May-Aug	None	None	S2S3	4.2	0	65	 ©2017 Steve Matson
Hemizonia congesta ssp. *tracyi*	Tracy's tarplant	Asteraceae	annual herb	(Mar-Apr)May-Oct	None	None	S4	4.3	395	3935	 © 2016 Steve Matson
Hesperevax sparsiflora var. *brevifolia*	short-leaved evax	Asteraceae	annual herb	Mar-Jun	None	None	S3	1B.2	0	705	 © 2006 Doreen L. Smith
Hosackia gracilis	harlequin lotus	Fabaceae	perennial rhizomatous herb	Mar-Jul	None	None	S3	4.2	0	2295	 © 2015 John Doyen
Iliamna latibracteata	California globe mallow	Malvaceae	perennial herb	Jun-Aug	None	None	S2	1B.2	195	6560	 ©2013 Scot Loring
Juncus nevadensis var. *inventus*	Sierra rush	Juncaceae	perennial rhizomatous herb	Jul-Nov	None	None	S1	2B.2	0	35	No Photo Available
Lasthenia californica ssp. *macrantha*	perennial goldfields	Asteraceae	perennial herb	Jan-Nov	None	None	S2	1B.2	15	1705	 © 2013 John Doyen
Lathyrus glandulosus	sticky pea	Fabaceae	perennial rhizomatous herb	Apr-Jun	None	None	S3	4.3	985	2625	 2015 Barrett Jeffery
Lathyrus japonicus	seaside pea	Fabaceae	perennial rhizomatous herb	May-Aug	None	None	S2	2B.1	5	100	 ©2021 Scot Loring
Lathyrus palustris	marsh pea	Fabaceae	perennial herb	Mar-Aug	None	None	S2	2B.2	5	330	 © 2016 Keir Morse

Layia carnosa	beach layia	Asteraceae	annual herb	Mar-Jul	FT	CE	S2	1B.1	0	195	 © 2007 Aaron Schusteff
Lilium kelloggii	Kellogg's lily	Liliaceae	perennial bulbiferous herb	(Feb)May-Aug	None	None	S3	4.3	10	4265	 © 2019 Spencer Riffle
Lilium occidentale	western lily	Liliaceae	perennial bulbiferous herb	Jun-Jul	FE	CE	S1	1B.1	5	605	 © 2018 Jason Matthias Mills
Listera cordata	heart-leaved twayblade	Orchidaceae	perennial herb	Feb-Jul	None	None	S4	4.2	15	4495	 ©2013 Dr. Amadej Trnkoczy 0000 0000 0513 2468
Lycopodiella inundata	inundated bog-clubmoss	Lycopodiaceae	perennial rhizomatous herb	Jun-Sep	None	None	S1	2B.2	15	3280	 © 2021 Scot Loring
Lycopodium clavatum	running-pine	Lycopodiaceae	perennial rhizomatous herb	Jun-Aug(Sep)	None	None	S3	4.1	150	4020	 © 2021 Scot Loring
Lycopus uniflorus	northern bugleweed	Lamiaceae	perennial herb	Jul-Sep	None	None	S4	4.3	15	6560	 © 2021 Scot Loring
Mitellastra caulescens	leafy-stemmed mitrewort	Saxifragaceae	perennial rhizomatous herb	(Mar)Apr-Oct	None	None	S4	4.2	15	5580	 © 2014 Dana York

Monotropa uniflora	ghost-pipe	Ericaceae	perennial herb (achlorophyllous)	Jun-Aug(Sep)	None	None	S2	2B.2	35	1805	 © 2021 Scot Loring
Montia howellii	Howell's montia	Montiaceae	annual herb	(Feb)Mar-May	None	None	S2	2B.2	0	2740	 © 2004 Dean Wm. Taylor
Oenothera wolfii	Wolf's evening-primrose	Onagraceae	perennial herb	May-Oct	None	None	S1	1B.1	10	2625	 ©2017 Dana York
Packera bolanderi var. *bolanderi*	seacoast ragwort	Asteraceae	perennial rhizomatous herb	(Jan-Apr)May-Jul(Aug)	None	None	S2S3	2B.2	100	2135	 © 2021 Scot Loring
Piperia candida	white-flowered rein orchid	Orchidaceae	perennial herb	(Mar-Apr)May-Sep	None	None	S3	1B.2	100	4300	 ©2016 Barry Rice
Pityopus californicus	California pinefoot	Ericaceae	perennial herb (achlorophyllous)	(Mar-Apr)May-Aug	None	None	S4	4.2	50	7300	 ©2009 Barry Rice
Pleuropogon refractus	nodding semaphore grass	Poaceae	perennial rhizomatous herb	(Feb-Mar)Apr-Aug	None	None	S4	4.2	0	5250	 ©2004 Dean Wm. Taylor
Polemonium carneum	Oregon polemonium	Polemoniaceae	perennial herb	Apr-Sep	None	None	S2	2B.2	0	6005	 ©2018 John Doyen
Ribes laxiflorum	trailing black currant	Grossulariaceae	perennial deciduous shrub	Mar-Jul(Aug)	None	None	S3	4.3	15	4575	 ©2010 Dana York

Romanzoffia tracyi	Tracy's romanzoffia	Hydrophyllaceae	perennial herb	Mar-May	None	None	S2	2B.3	50	100	 ©2017 Steve Matson
Sidalcea malachroides	maple-leaved checkerbloom	Malvaceae	perennial herb	(Mar)Apr-Aug	None	None	S3	4.2	0	2395	 ©2005 Dean Wm. Taylor
Sidalcea malviflora ssp. *patula*	Siskiyou checkerbloom	Malvaceae	perennial rhizomatous herb	(Mar)May-Aug	None	None	S2	1B.2	50	4035	 ©2004 Dean Wm. Taylor
Sidalcea oregana ssp. *eximia*	coast checkerbloom	Malvaceae	perennial herb	Jun-Aug	None	None	S1	1B.2	15	4395	No Photo Available
Silene scouleri ssp. *scouleri*	Scouler's catchfly	Caryophyllaceae	perennial herb	(Mar-May)Jun-Aug(Sep)	None	None	S2S3	2B.2	0	1970	 ©2015 Vernon Smith
Spergularia canadensis var. *occidentalis*	western sand-spurrey	Caryophyllaceae	annual herb	Jun-Aug	None	None	S1	2B.1	0	10	No Photo Available
Sulcaria spiralifera	twisted horsehair lichen	Parmeliaceae	fruticose lichen (epiphytic)		None	None	S2	1B.2	0	295	 © 2021 Scot Loring
Tiarella trifoliata var. *trifoliata*	trifoliate laceflower	Saxifragaceae	perennial rhizomatous herb	(May)Jun-Aug	None	None	S2S3	3.2	560	4920	 © 2021 Scot Loring
Trichodon cylindricus	cylindrical trichodon	Ditrichaceae	moss		None	None	S2	2B.2	165	6570	No Photo Available
Usnea longissima	Methuselah's beard lichen	Parmeliaceae	fruticose lichen (epiphytic)		None	None	S4	4.2	165	4790	 © 2021 Scot Loring

Viola palustris	alpine marsh violet	Violaceae	perennial rhizomatous herb	Mar-Aug	None	None	S1S2	2B.2	0	490	 ©2021 Scot Loring

Showing 1 to 69 of 69 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 2 May 2023].

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
Phone: (707) 822-7201 Fax: (707) 822-8411

In Reply Refer To: May 02, 2023
Project Code: 2023-0076745
Project Name: Boyd Draw Bike Path (0K510)

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
(707) 822-7201

PROJECT SUMMARY

Project Code: 2023-0076745
Project Name: Boyd Draw Bike Path (0K510)
Project Type: Road/Hwy - Maintenance/Modification
Project Description: This memorandum was prepared to address the biological resources, including endangered species and sensitive resources, for the Boyd Draw Bike Path Project on US Highway (US) 101 at post mile (PM) 89.4 within the city of Arcata in Humboldt County. This project would require right of way acquisition, approximately 0.28 acres, along the west side of Highway 101 to connect Heindon Road with State right of way at the Boyd Draw Bridge. Construction would involve vegetation and RSP removal, fence installation, grading work, placement of detectable warning surface, placement of imported borrow, aggregate base and HMA. In addition to the bike path construction of a new access road, approximately 380 feet long, is planned for the affected property. The first section of the access road would involves paving a 10-foot wide road connecting to a 15-foot wide gravel access road that would be created, terminating at the proposed staging area on private property.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.912385549999996,-124.09098978087411,14z

Counties: Humboldt County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. 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.

MAMMALS

NAME	STATUS
Pacific Marten, Coastal Distinct Population Segment *Martes caurina* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9081	Threatened

BIRDS

NAME	STATUS
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

REPTILES

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened

FISHES

NAME	STATUS
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Western Lily *Lilium occidentale*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/998

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

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

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

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird *Selasphorus sasin* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Jan 1 to Sep 30

NAME	BREEDING SEASON
Black Oystercatcher *Haematopus bachmani* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9591	Breeds Apr 15 to Oct 31
Black Swift *Cypseloides niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Black Turnstone *Arenaria melanocephala* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Cassin's Finch *Carpodacus cassinii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Evening Grosbeak *Coccothraustes vespertinus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Golden Eagle *Aquila chrysaetos* 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	Breeds Jan 1 to Aug 31
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31

NAME	BREEDING SEASON
Rufous Hummingbird *selasphorus rufus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds Jun 1 to Aug 10
Tufted Puffin *Fratercula cirrhata* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/430	Breeds May 5 to Oct 5
Western Grebe *aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit *Chamaea fasciata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	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 and understand the FAQ "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.

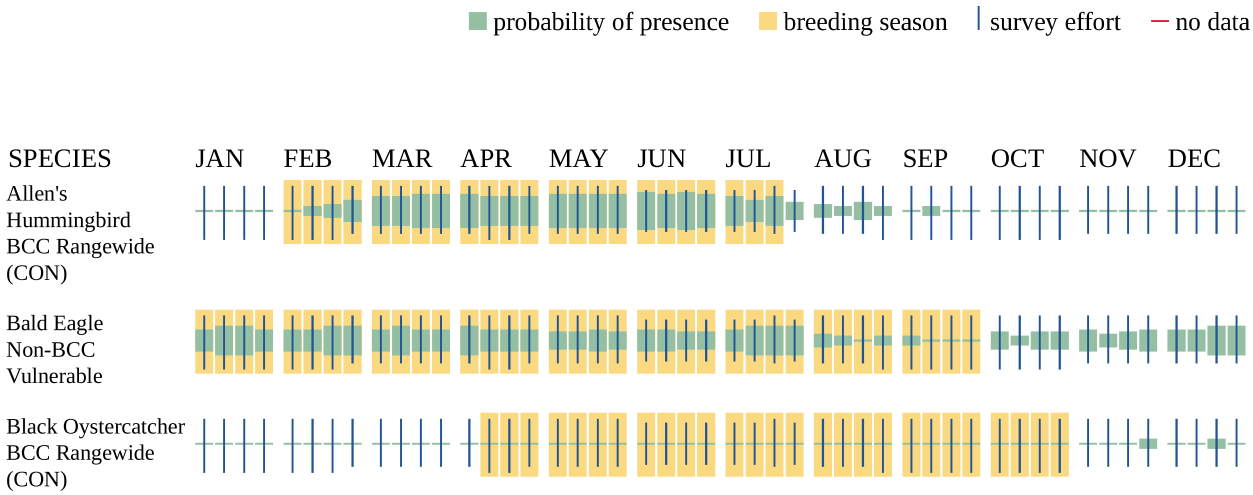
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 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.

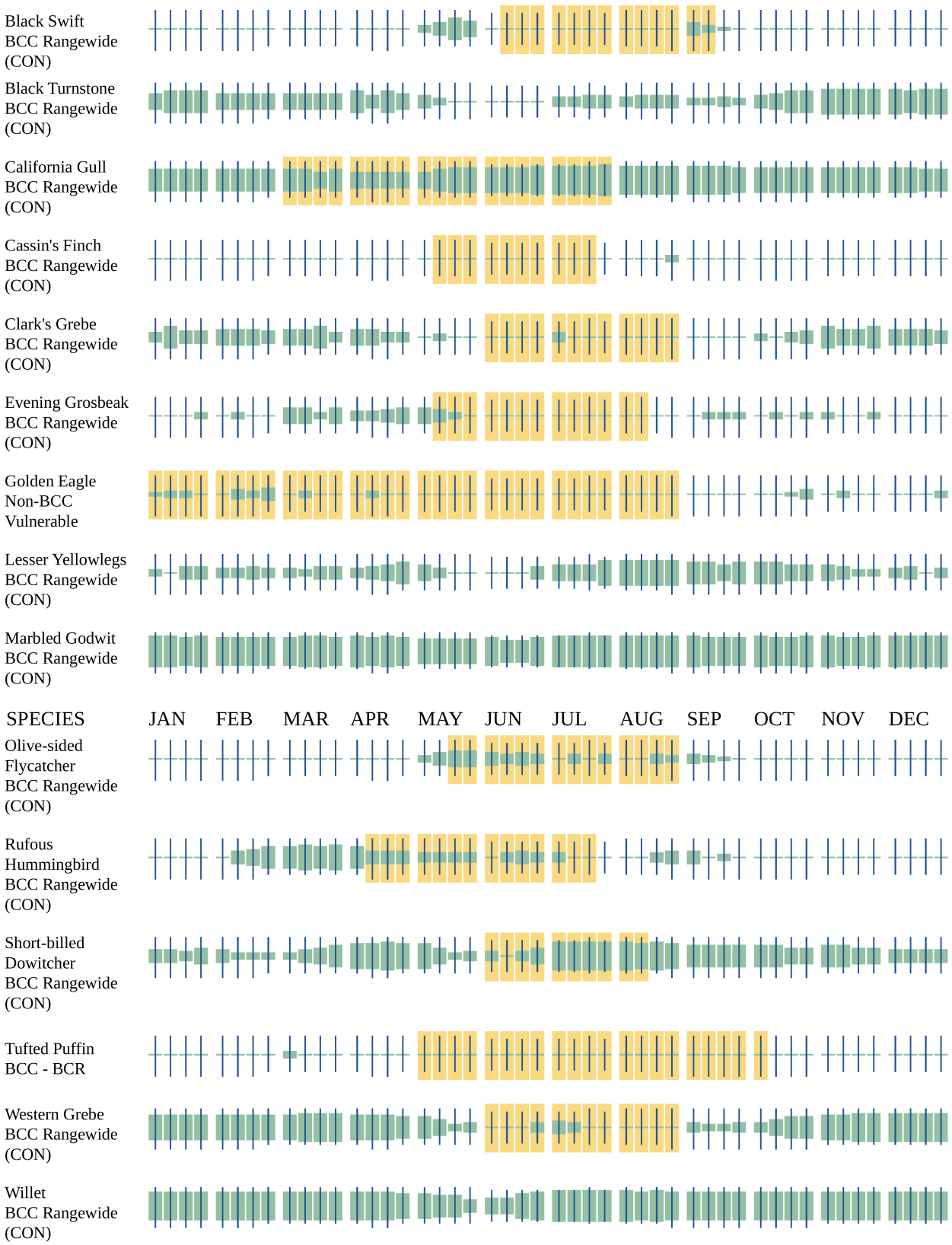
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

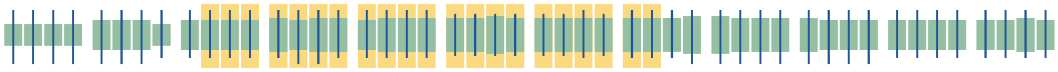
No Data (–)
A week is marked as having no data if there were no survey events for that week.

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.




Black Swift
BCC Rangewide
(CON)
Black Turnstone
BCC Rangewide
(CON)
California Gull
BCC Rangewide
(CON)
Cassin's Finch
BCC Rangewide
(CON)
Clark's Grebe
BCC Rangewide
(CON)
Evening Grosbeak
BCC Rangewide
(CON)
Golden Eagle
Non-BCC
Vulnerable
Lesser Yellowlegs
BCC Rangewide
(CON)
Marbled Godwit
BCC Rangewide
(CON)
SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Olive-sided
Flycatcher
BCC Rangewide
(CON)
Rufous
Hummingbird
BCC Rangewide
(CON)
Short-billed
Dowitcher
BCC Rangewide
(CON)
Tufted Puffin
BCC - BCR
Western Grebe
BCC Rangewide
(CON)
Willet
BCC Rangewide
(CON)

Wrentit
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

MIGRATORY BIRDS FAQ

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 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.

WETLANDS

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.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: California Department of Transportation District 1
Name: Dominic Moore
Address: 1656 Union St,
City: Eureka
State: CA
Zip: 95501
Email dominic.moore@dot.ca.gov
Phone: 7078155961

NMFS Species List for Boyd Draw Bike and Pedestrian Path-101 PM 89.4 (01-0K510)

Quad Names & Numbers: Arcata North 40124-H1

ESA Anadromous Fish

SONCC Coho ESU (T) - **X**

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) - **X**

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) - **X**

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) - **X**

sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - **X**

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat - **X**

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat - **X**

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat - **X**

sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) - **X**

Olive Ridley Sea Turtle (T/E) - **X**

Leatherback Sea Turtle (E) - **X**

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) - **X**

Fin Whale (E) - **X**

Humpback Whale (E) - **X**

Southern Resident Killer Whale (E) - **X**

North Pacific Right Whale (E) - **X**

Sei Whale (E) - **X**

Sperm Whale (E) - **X**

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH - **X**

Coastal Pelagics EFH - **X**

Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office

562-980-4000

MMPA Cetaceans - **X**

MMPA Pinnipeds - **X**