

117 Alameda Avenue Residential Addition Project Biological Resources Assessment

Prepared for:



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August 6, 2025
Revised October 13, 2025

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Abbreviations

ACE	Terrestrial Habitat Connectivity Mapper
BSA	Biological Study Area
CCA	California Coastal Act
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRLF	California red-legged frog
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CZMA	Coast Zone Management Act
DPS	Distinct Population Segment
EPA	Environmental Protection Agency
ESHA	Environmentally Sensitive Habitat Area
FESA	Federal Endangered Species Act
IPaC	Information for Planning and Consultation
LCP	Local Coastal Program
LUP	Land Use Plan
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Protection Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NWI	National Wetlands Inventory
Project	117 Alameda Avenue Residential Addition Project
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
SFGS	San Francisco garter snake
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WDR	Waste Discharge Requirement

1 Introduction and Project Description

1.1 Introduction

The purpose of this report is to provide the results of field surveys and desktop analyses performed to determine if sensitive habitats, special-status species and their habitat, and other biological resources could occur in the 117 Alameda Avenue Residential Addition (Project) area located in Half Moon Bay, San Mateo County, California. Regulations protecting relevant resources are outlined in this document in order to satisfy compliance regulations required by the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), the California Coastal Act (CCA) and the Half Moon Bay Local Coastal Program (LCP). The Project is in northern Half Moon Bay west of Cabrillo Highway at latitude 37.490692 and longitude -122.454653. The Assessor's Parcel Number is 048-095-070. The Project location is shown in Appendix A, Figure 1. Roosevelt Creek runs east to west along the southern parcel boundary. The creek is an Environmentally Sensitive Habitat Area (ESHA¹) regulated by the California Coastal Commission. When a proposed project has the potential to impact an ESHA, a biological resources evaluation must be conducted.

This report contains descriptions of the environmental regulations relevant to the Project, as well as the methods and results of research and surveys performed and determinations made regarding the presence or absence of special-status plants and wildlife, as well as the presence, location, and extent of any sensitive natural communities and aquatic resources within or adjacent to the footprint of the Project.

1.2 Project Description

The purpose of the Project is to remodel the house add a new third floor addition above a two-story portion of an existing home. The remodel and the additions will be constructed within the same footprint as the existing house. In August of 2025, the property owner began some removal of riparian vegetation on his parcel adjacent to Roosevelt Creek. Representatives from the City of Half Moon Bay explained that impacts to riparian corridors are regulated and all work within the corridor requires review before work can commence. The extent of the vegetation removal was assessed by BioMaAS biologist, Sandra Etchell on September 18, 2025, and was determined to be minor. Based upon disturbance incurred, the Project will also include the removal of non-native invasive species from an approximate 2,000 square foot area for the purpose of enhancing the riparian corridor along Roosevelt Creek. Although there are numerous non-native, invasive species in the riparian corridor removal will specifically target English ivy (*Hedera helix*) which is parasitizing native arroyo willows and will eventually cause them to die.

¹ Defined as any area in which plant or animal life or their habitats are either rare or especially valuable because of their nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments (Coastal Act Section 30107.5).



Photo 1. Example of English ivy parasitizing native riparian willow.

1.3 Biological Study Area

The Biological Study Area (BSA) was defined as the footprint of the proposed Project that may be subject to direct or indirect effects resulting from the construction of project features.

The BSA encompasses the areas associated with and adjacent to the Project, including the existing house and everything within a 200-foot radius. Figure 2 of Appendix A shows the extent of the BSA. Project elements such as the staging areas, construction access and areas where construction activity will be concentrated would occur in previously disturbed areas such as the driveway and existing sidewalks/paths adjacent to the house. Representative photographs of the BSA are included in Appendix E

2 Regulatory Setting

This section describes the federal, state, local, and other regulations that apply to biological resources that occur or have potential to occur within the project area.

2.1 Federal

2.1.1 Endangered Species Act, Section 7

The Federal Endangered Species Act (FESA) was established to protect imperiled fish, wildlife and plants and to take necessary measures to prevent them from going extinct. Based on scientific research, a species may be listed as threatened or endangered, and whether a species should be considered a candidate for listing until more information is evaluated. In addition, a species could be removed from listing if sufficient evidence exists that the species is no longer in danger of extinction. FESA requires not only the protection of listed species but also the conservation of species-specific habitat they rely on for survival. Section 7 of the FESA requires that federal agencies consult with the agencies responsible for enforcing FESA if a project under their review has any potential to affect federally listed species or critical habitat. The U.S. Fish and Wildlife Service (USFWS) oversees the protection of terrestrial and freshwater aquatic species. The National Marine Fisheries Service (NMFS) oversees the protection of oceanic species, anadromous fish, and marine mammals.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 prohibits the take (killing, capturing, selling, trading, or transport) of protected migratory bird species, including their eggs, nests, and young, without prior authorization by the USFWS. The MBTA applies to migratory bird species that are native to the United States or U.S. territories and are present as a result of natural biological or ecological processes.

2.1.3 CWA Section 404

The Clean Water Act (CWA) serves as the primary federal law protecting the quality of the nation's wetlands and surface waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (USEPA) regulate the discharge of dredged and fill materials into the waters of the United States. The definition of waters of the United States, as amended by the USEPA and USACE on September 8, 2023, includes: 1) waters used for commerce and subject to tides; 2) interstate waters and wetlands; 3) other waters such as intrastate lakes, rivers, streams (including intermittent streams), and wetlands; 4) impoundments of waters; 5) tributaries of waters that are relatively permanent, standing or continuously flowing bodies of water; 6) territorial seas; and 7) wetlands adjacent to waters that have a continuous surface connection with navigable waters and tributaries with relatively permanent or continuous flows to navigable waters. Aquatic features no longer protected under the CWA Section 404 following the September 8, 2023, amendment to the definition include 1) ephemeral drainages that are not sustained by a groundwater source, and 2) isolated wetlands that have no surface connectivity to navigable waters and/or tributaries with relatively continuous connectivity to navigable waters.

The CWA defines wetlands as a subset of waters of the United States that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and

that under normal circumstances support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328.3[b]; 40 CFR 230.3[t]).

2.2 State

2.2.1 California Endangered Species Act

The California Endangered Species Act (CESA) protects plant and wildlife species at risk of extinction. CESA-listed species may not be imported into the state, exported out of the state, taken, possessed, purchased, or sold without proper authorization via permitting through California Department of Fish and Wildlife (CDFW). Species may be designated as endangered or threatened after a formal listing process by the California Fish and Game Commission. Only individuals are protected, not their habitat. CDFW must evaluate a proposed project for its potential impacts to species under their jurisdiction.

2.2.2 California Fish and Game Code

2.2.2.1 Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code (CFGC) define the classification of Fully Protected, providing protection for animals that are rare or faced with possible extinction. Fully Protected species may not be taken or possessed except with an authorization from CDFW. Many fully protected species are also listed under CESA as threatened or endangered.

2.2.2.2 Lake and Streambed Alteration Agreements

Section 1602 of the CFGC requires an entity to notify the CDFW prior to commencing an activity that will substantially divert or obstruct the natural flow of or substantially change or use any material from the bed, channel, or bank of any river, stream or lake, or deposit or dispose of debris, waste or other material where it may pass into any river, stream or lake. Vegetation associated with the health of aquatic features such as riparian corridors, are also protected. Following the notification, the CDFW will determine whether or not a Lake or Streambed Alteration Agreement is necessary and if so, the agreement will include measures, often including mitigation necessary to protect the resource(s) with potential to be affected.

2.2.2.3 Bird/Raptor Protection in the Fish and Game Code

Section 3503 of the CFGC makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Additionally, Section 3503.5 of the CFGC makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey). CDFW is the state agency responsible for enforcing the protection of birds and places the responsibility of ensuring that a project has no take on the project proponent who must demonstrate in advance what measures will be taken to avoid take through the CEQA process and permitting process.

2.2.3 Clean Water Act Section 401/Porter-Cologne Water Quality Control Act

Waters of the State are regulated by the Regional Water Quality Control Board (RWQCB) under the State Water Quality Certification Program, which regulates discharges of dredged and fill material

under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. The State Water Code defines “waters of the State” broadly to include “any surface water or groundwater, including saline waters, within the boundaries of the state.” Waters of the State also includes all “waters of the U.S.” (California Water Boards [CWB] 2021). Under this definition, isolated wetlands that may not be subject to regulations under federal law are considered waters of the State. Additionally, the California RWQCB adopted State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (CWB 2021) and uses the methods of delineation prescribed in the USACE wetlands delineation manuals (USACE 1987).

The RWQCB protects all waters in its regulatory scope but has special responsibility for isolated wetlands and headwaters that may not be regulated by other programs (such as Section 404 of the CWA). Projects that require a Section 404 CWA permit or fall under other federal jurisdiction and have the potential to impact waters of the State are required to obtain a Section 401 Water Quality Certification. If a project does not require a federal license or permit but involves activities that may result in a discharge of harmful substances to waters of the State, the RWQCB has the option to regulate such activities under its authority in the form of Waste Discharge Requirements (WDR). Artificial wetlands created for specific uses, excluding mitigation wetlands, are regulated by the State Water Resources Control Board. Wetlands created for treatment purposes require National Pollutant Discharge Elimination System permits.

The RWQCB defines an area as a wetland if, under normal circumstances, 1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; 2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and 3) the area’s vegetation is dominated by hydrophytic vegetation or the area lacks vegetation (CWB 2021).

2.3 Local Plans and Policies

2.3.1 City of Half Moon Bay Local Coastal Program

All development in the coastal zone² requires either a Coastal Development Permit (CDP) and must comply with the policies and ordinances of the CCA. The intent of the CCA is to protect and conserve the coastal resources in the coastal zone, to maximize public coastal access, and to balance beneficial uses for the environment and public. Every coastal city and county in California must have a Local Coastal Program (LCP) to plan for and regulate all land use with the intention to protect resources and to promote development policies within the coastal zone. The LCPs are reviewed by the California Coastal Commission (CCC) for compliance with the Coastal Zone Management Act (CZMA). After an LCP has been certified by the CCC the local government is authorized to issue CDPs in compliance with the LCP. The entire city of Half Moon Bay is within the coastal zone boundary.

² Zones delineated along the California Coast that encompass both land and sea that are protected under the Coastal Zone Management Act.

Among other issues regulated by the LCP, protection of Environmentally Sensitive Habitat Areas (ESHA)³ are a high priority for the CCA and the City of Half Moon Bay⁴. According to the City of Half Moon Bay Land Use Plan (LUP) Policy 6.50, Riparian Corridor Buffer Zones⁵ typically extend a minimum of 35 feet from the outer limit of riparian vegetation or the top of bank whichever is greater. With the following pertinent exception:

Exception 6-50b. "Where only the building site is not located entirely within the required buffer; no alternative development site, size, or design is feasible to accommodate the development entirely outside of the required buffer; no new adverse impacts to the riparian corridor will occur; and the reduced buffer would provide equivalent protection of the biological integrity of the riparian corridor given the site-specific characteristics of the resource and they type and intensity of disturbance, as conclusively demonstrated by a qualified biologist to the satisfaction of the City and all jurisdictional regulatory agencies:

The buffer may be reduced to no less than 25 feet from the outer limits of riparian vegetation or from the top of bank, whichever is greater for the development proposed adjacent to all other intermittent and ephemeral watercourses pursuant to Policy 6-49(b)⁶ (City of Half Moon Bay 2020).

The applicable buffer zone is shown in Appendix 1, Figure 3.

3 Methods

This section describes the methodology used to conduct research and field surveys.

3.1 Background Research

Desktop and other background research were conducted including aerial imagery, databases, lists and other peer-review literature. The databases and other primary sources included the following:

⁴ Section 30240 states that adjacent developments (a) ESHAs shall be protected against any significant disruption of habitat values and only uses depended on those resources shall be allowed within those areas.

⁵ In Half Moon Bay Municipal Code Chapter 18.38 (Coastal Resource Conservation Standards) Section 18.38.075; defined as 1) Land on both sides of riparian corridors which extends from the "limit" of riparian vegetation" fifty feet outward for perennial streams and thirty feet from the midpoint of intermittent streams, or 2) Land along both sides of riparian corridors which extends fifty feet from the bank edge for perennial streams and thirty feet from the midpoint of intermittent streams where no riparian vegetation exists. (City of Half Moon Bay 2024).

⁶ Policy 6-49(b): For all other intermittent and ephemeral watercourses with riparian vegetation (e.g. Roosevelt Creek, the riparian corridor in the northwestern area of Ocean Colony, and Arroyo Cañada Verde east of Highway 1): buffer zones shall extend a minimum of 35 feet from the outer limit of riparian vegetation or the top of bank, whichever is greater.

- California Natural Diversity Database (CNDDDB). Using a 5-mile-radius buffer around the project site, a list of known plant occurrences, wildlife occurrences, and CDFW-designated sensitive natural communities was generated (CDFW 2025a) (Appendix B).
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (CNPS 2025) (Appendix B).
- USFWS Information for Planning and Consultation (IPaC) database list (USFWS 2025a) (Appendix B).
- USFWS National Wetlands Inventory (USFWS 2025b).
- Literature cited in the text.

3.1.1 Plants

For the purposes of this report, special-status plant species were defined as species with federal or state listing of threatened or endangered, and/or a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, or 2B. A full list of plants that were evaluated are included in Table 1 below.

Prior to conducting field surveys, a list of CRPR species likely to be encountered was compiled using the CNPS Inventory (CNPS 2025), CNDDDB Biological Information and Observation System (BIOS) and RareFind (CDFW 2025a). Based upon the background searches and blooming periods of species from the combined lists, the number of surveys required, and appropriate survey seasons were determined.

3.1.2 Wildlife

3.1.2.1 Special-Status Wildlife Species

For the purposes of this report, special-status wildlife species include:

- Species listed as endangered or threatened, or as candidate for listing under the FESA, and/or the CESA
- CDFW Species of Special Concern (SCC) and Fully Protected species
- Birds protected under the MBTA.

3.1.2.2 Critical Habitat

Critical habitat is defined by the USFWS as the geographic areas that contain the physical or biological features that are essential to the conservation of an endangered or threatened species. The USFWS Critical Habitat for Threatened and Endangered Species Mapper (USFWS 2025c) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries West Coast Region Species and Habitat Map (NOAA 2025) were reviewed for the boundaries of critical habitat in the vicinity of the Project. The BSA was compared with the online mapping data from these resources to determine whether any known critical habitat areas intersected the BSA.

3.1.2.3 Wildlife Movement and Migration Corridors

The CDFW Terrestrial Habitat Connectivity (ACE) (CDFW 2025c) online BIOS map was utilized to determine what type of wildlife movement corridors have been mapped for the Project region. ACE connectivity ranks 1-5 are based upon the importance of connectivity which follows a set criterion.

3.1.3 Sensitive Natural Communities

Natural communities listed on the California Natural Community List with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the CEQA environmental review process.

3.1.4 Wetlands and Waters

The following resources were reviewed prior to conducting field investigations to obtain information on wetlands and other water features that may occur in the BSA.

- United States Geological Survey 7.5-minute topographic quadrangle map, Half Moon Bay
- National Wetlands Inventory mapper (USFWS, 2025b)

3.2 Field Surveys

A reconnaissance-level field survey was conducted on July 7, 2025, by BioMaAS senior biologist Sandra Etchell who specializes in plant and wildlife identification, wetlands delineations, and biological resources regulation.

3.2.1 Vegetation Communities

Vegetation communities were identified by determining which species of plant(s) were dominant in each of the herb, shrub, and tree strata. This information was then used to reference the CNPS Manual of California Vegetation and other literature cited in the report to determine which alliance best represented the observed vegetation community. The boundaries of these vegetation communities were then mapped using a combination of field notes, GPS field data, and aerial imagery.

3.2.2 Floristic Surveys

Reconnaissance level Floristic surveys were conducted by Sandra Etchell at the time of the July 7, 2025, site visit. Species observed within the project areas were recorded (with the exception of ornamental species and non-native weeds).

3.2.3 Wildlife Surveys

Wildlife surveys were conducted during the reconnaissance level survey. All species observed within the project area were recorded.

3.2.4 Sensitive Natural Communities

During surveys of the BSA, all habitat types, natural or developed, were assessed for species composition. The information collected in the field, occurrence data for sensitive natural communities, and aerial imagery were used to generate a map of all habitat types within the BSA. The Natural Communities List (CDFW 2025) was referenced for the designated state rank of each natural community to determine if any of the natural communities present within the BSA are ranked as a Sensitive Natural Community.

3.2.5 Wetland Delineation

If potential jurisdictional aquatic features were observed in the BSA, they were assessed based on federal and state guidelines and regulations, including Sections 404 and 401 of the CWA, and the Porter-Cologne Water Quality Control Act. If potential wetlands were observed, delineations would

be performed in accordance with the United States Army Corps of Engineers (USACE) guidelines and the September 8, 2023 final rule amendment to the definition of “waters of the United States” by the EPA and the USACE to conform with the Supreme Court Decision of Sacket v. EPA.

4 Results

4.1 Vegetation Communities

There were three vegetation communities found within the BSA; urban, Central Coast arroyo willow riparian forest, and non-native eucalyptus forest. These communities are described in the following section. Refer to Figure 2 of Appendix A for a map showing where these vegetation communities and where they occur within the BSA.

4.1.1 Urban

Urban vegetation communities include tree grove, street strip, shade tree/lawn, lawn, and shrub vegetation primarily comprised of exotic landscape species. Urban landscapes are typically designed and structured around residential and recreational developments with manicured lawn being the most uniform vegetative unit of the California urban habitat. Urban development contains a high percentage of paved areas however biomass productivity is greater than most natural areas due to the application of irrigation and fertilizers. Wildlife species richness and diversity is low particularly in heavily developed areas however urban vegetation communities provide habitat for a variety of bird species, and wildlife adapted to living in close proximity to humans. Wildlife species that frequently occur in urban vegetation communities consistent with the BSA include house sparrow (*Passer domesticus*), Eurasian collared-dove (*Streptopelia decaocto*), northern mockingbird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*) and mule deer (*Odocoileus virginianus*) (McBride and Reid 1988).

4.1.2 Central Coast Arroyo Willow Riparian Forest

Riparian corridors often consist of a diversity of plants and provide a range of benefits to a variety of wildlife offering forage, water, thermal and escape cover, nesting/breeding, migration and dispersal corridors. Riparian plant communities are categorized by the dominant trees within the vegetation community. Riparian habitats are found in association with rivers, wetlands, and streams. Central Coast Arroyo Willow Riparian Forest is characterized by dense thickets of vegetation that grow on fine-grained soils and gravel bars within the south Coast Ranges extending from the San Francisco Bay Area south to Santa Barbara County (Holland 1986). The willow riparian forest within the BSA is a dense thicket comprised of a willow canopy with numerous non-native understory plants and vines. Plants observed included few native species including the dominant tree, arroyo willow (*Salix lasiolepis*) and common horsetail (*Equisetum arvense*). Most plants observed in the understory consisted of non-native herbaceous species including poison hemlock (*Conium maculatum*), bristly ox-tongue (*Helminthotheca echiodes*), cotoneaster (*Cotoneaster franchetii*), wild radish (*Raphanus sativus*), English ivy (*Hedera helix*), Himalayan blackberry (*Rubus armeniacus*), garden nasturtium (*Tropaeolum majus*), and shrubby germander (*Teucrium fruticans*).

4.1.3 Non-native Eucalyptus Forest

Eucalyptus vegetation communities are comprised almost entirely of thick stands of eucalyptus trees. They suppress the growth of understory vegetation and accumulate thick layers of leaf litter and woody debris. Eucalyptus groves occur at lower elevations where they are not affected by

freezing temperatures. Eucalyptus groves are found in and around both urban and rural environments. They provide roosts, perches, and nest sites for a number of bird species, particularly raptors. The abundance of leaf litter beneath the tree provides micro habitats for small vertebrate species including lizards, snakes, and rodents. (Pearson 1988).

4.2 Floristic Surveys

4.2.1 Desktop Review

Database queries and review of other background resources determined that there are 45 special-status plant species documented within the Half Moon Bay 7.5-minute quadrangle where the BSA occurs and the seven surrounding quadrangles which includes Montara Mountain, San Mateo, Woodside, La Honda and San Gregorio. Table 1 below provides a complete evaluation for potential to occur table for each special-status plant listed on the CNDDDB, CNPS, and USFWS database lists included in Appendix B.

4.2.2 Plant Survey Results

Cursory floristic plant surveys were conducted at the edge of the riparian corridor due to its location within the BSA; no protocol level botanical surveys were performed due to the exclusion of this area from Project impacts. No special-status plant species, nor rare plant species, were identified within the BSA as a result of these surveys. The full list of observed plant species is provided in Appendix C.

TABLE 1. SPECIAL STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Scientific Name Common Name	Status*	Blooming Period	Habitat	Potential to Occur within the Study Area
San Mateo thorn-mint <i>Acanthomintha duttonii</i>	1B.1 FE, SE	Apr-Jun	Chaparral, valley and foothill grassland. Elev. 165-985 ft.	None. There is no chaparral or valley, and foothill grassland habitat present in the BSA.
Blasdale's bent grass <i>Agrostis blasdalei</i>	1B.2	May-Jul	Coastal bluff scrub, coastal dunes, coastal prairie. Elev. 0-490 ft.	None. There is no coastal bluff scrub or coastal dune present in the BSA.
Franciscan onion <i>Allium peninsulare</i> var. <i>franciscanum</i>	1B.2	May-Jun	Cismontane woodland, valley and foothill grassland. Clay soils; often on serpentine; sometimes on volcanics. Dry hillsides. Elev. 15 – 1,050 ft.	None. There is no woodland or grassland habitat present in the BSA.
Bent-flowered fiddleneck <i>Amsinckia lunaris</i>	1B.2	Mar-Jun	Coastal bluff scrub, cismontane woodland, valley and foothill grasslands. Elev. 10-1,640 ft.	None. There is no scrub, woodland, or grassland habitat present in the BSA.
Robbins' broomrape <i>Aphyllon robbinsii</i>	1B.1	Apr-Jul	Coastal bluff scrub. Elev. 0-330 ft.	None. There is no coastal bluff scrub habitat present in the BSA.
Anderson's manzanita <i>Arctostaphylos andersonii</i>	1B.2	Nov-May	Broadleafed upland forest, chaparral, North Coast coniferous forest. Elev. 195- 2,495 ft.	None. There is no forest or chaparral habitat present in the BSA.
Montara manzanita <i>Arctostaphylos montaraensis</i>	1B.2	Jan-Mar	Maritime chaparral, coastal scrub. Elev. 260-1,640 ft.	None. There is no chaparral or scrub habitat present in the BSA.
King's Mountain manzanita <i>Arctostaphylos regismontana</i>	1B.2	Dec-Apr	Broadleafed upland forest, chaparral, North Coast coniferous forest. Elev. 1,000-2,395 ft.	None. There is no forest or chaparral habitat present in the BSA.
Coastal marsh milk-vetch <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	1B.2	Apr-Oct	Mesic coastal dunes, coastal scrub, marsh and swamps (coastal salt, streamsides). Elev. 0-180 ft.	None. There is no dune, scrub or marsh habitat present in the BSA.

Scientific Name Common Name	Status*	Blooming Period	Habitat	Potential to Occur within the Study Area
Pappose tarplant <i>Centromadia parryi</i> ssp. <i>parryi</i>	1B.2	May-Nov	Chaparral, coastal prairie, meadows and seeps, coastal salt marshes and swamps, vernal mesic valley and foothill grasslands. Elev. 0-1,380 ft.	None. While the riparian corridor in the BSA provides marginally suitable habitat for this species, it was not found during previous botanical surveys ^{7, 8} . In addition, no vegetation will be removed from the riparian corridor as part of the Project.
Point Reyes salty bird's-beak <i>Chloropyron maritimum</i> ssp. <i>palustre</i>	1B.2	Jun-Oct	Coastal salt marshes and swamps. Elev. 0-35 ft.	None. There is no marsh or swamp habitat present in the BSA.
San Francisco Bay spineflower <i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	1B.2	Apr-Aug	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. Elev. 10-705 ft.	None. There is no scrub, dune, or prairie habitat present in the BSA.
Franciscan thistle <i>Cirsium andrewsii</i>	1B.2	Mar-Jul	Broadleaved upland forest, coastal bluff scrub, coastal prairie, coastal scrub. Elev. 0-490 ft.	None. There is no forest, scrub, or prairie habitat present in the BSA.
Fountain thistle <i>Cirsium fontinale</i> var. <i>fontinale</i>	1B.1, FE, SE	Apr-Oct	Openings in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Elev. 150-575 ft.	None. There is no chaparral, woodland, meadow, seep, or grassland habitat present in the BSA.
San Francisco collinsia <i>Collinsia multicolor</i>	1B.2	Feb-May	Closed-cone coniferous forest, coastal scrub. Elev. 100-900 ft.	None. There is no forest or scrub habitat present in the BSA.

⁷ Nomad Ecology. 2008. *Biological Resources Assessment Existing Decorative Wall Alameda Avenue, City of Half Moon Bay, San Mateo County*. Prepared for City of Half Moon Bay.

⁸ SWCA Environmental Consultants. 2016 *Biological Resource Survey Report for the 2909 Champs Elysee Boulevard Project Half Moon Bay, San Mateo County, California*. Prepared for the City of Half Moon Bay.

Scientific Name Common Name	Status*	Blooming Period	Habitat	Potential to Occur within the Study Area
Western leatherwood <i>Dirca occidentalis</i>	1B.2	Jan-Apr	Broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland. Elev. 80-1,395 ft.	None. While the riparian corridor in the BSA provides marginally suitable habitat for this species, it was not found during previous botanical surveys. In addition, no vegetation will be removed from the riparian corridor as part of the Project.
San Mateo woolly sunflower <i>Eriophyllum latilobum</i>	1B.1 FE, SE	May-Jun	Cismontane woodlands (often roadsides), coastal scrub, lower montane coniferous forest. Elev. 150-1,085 ft.	None. There is no woodland, scrub, or forest habitat present in the BSA.
Minute pocket moss <i>Fissidens pauperculus</i>	1B.2	Moss	North Coast coniferous forest in damp soil. Elev. 35-3,360 ft.	None. There is no coniferous forest habitat present in the BSA.
Hillsborough chocolate lily <i>Fritillaria biflora</i> var. <i>ineziana</i>	1B.1	Mar-Apr	Cismontane woodland, valley and foothill grassland. Elev. 490 ft.	None. There is no woodland, or grassland habitat present in the BSA.
Fragrant fritillary <i>Fritillaria liliacea</i>	1B.2	Feb-Apr	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Elev.10-1,345 ft.	None. There is no woodland, prairie or grassland habitat present in the BSA.
Short-leaved evax <i>Hesperavax sparsiflora</i> var. <i>brevifolia</i>	1B.2	Mar-Jun	Coastal bluff scrub (sandy), coastal dunes, coastal prairie. Elev. 0-705 ft.	None. There is no scrub, dune, or prairie habitat present in the BSA.
Marin western flax <i>Hesperolinon congestum</i>	1B.1 FT, ST	Apr-Jul	Chaparral, valley and foothill grassland. Elev. 15-1,215 ft.	None. There is no woodland or grassland habitat present in the BSA.
Kellog's horkelia <i>Horkelia cuneata</i> var. <i>sericea</i>	1B.1	Apr-Sep	Closed-cone coniferous forest, maritime chaparral, coastal dunes, coastal scrub. Elev. 35-655 ft.	None. There is no forest, chaparral, dune or scrub habitat present in the BSA.
Point Reyes horkelia <i>Horkelia marinensis</i>	1B.2	May-Sep	Coastal dunes, coastal prairie, coastal scrub. Elev. 15-2,475 ft.	None. There is no dune, prairie, or scrub habitat present in the BSA.

Scientific Name Common Name	Status*	Blooming Period	Habitat	Potential to Occur within the Study Area
Island tube lichen <i>Hypogymnia schizidata</i>	1B.3	Lichen	Closed-cone coniferous forest, chaparral. Elev. 1,180-1,330 ft.	None. There is no forest or chaparral habitat present in the BSA.
Perennial goldfields <i>Lasthenia californica</i> ssp. <i>macrantha</i>	1B.2	Jan-Nov	Coastal bluff scrub, coastal dunes, coastal scrub. Elev. 15-1,705 ft.	None. There is no scrub or dune habitat present in the BSA.
Coast yellow leptosiphon <i>Leptosiphon croceus</i>	1B.1, SE	Apr-Jun	Coastal bluff scrub, coastal prairie. Elev. 35-490 ft.	None. There is no scrub or prairie habitat present in the BSA.
Rose leptosiphon <i>Leptosiphon rosaceus</i>	1B.1	Apr-Jul	Coastal bluff scrub. Elev. 0-330 ft.	None. There is no scrub habitat present in the BSA.
Crystal Springs lessingia <i>Lessingia arachnoidea</i>	1B.2	Jul-Oct	Cismontane woodland, coastal scrub, valley and foothill grassland. Elev. 195-655 ft.	None. There is no woodland, scrub, or grassland habitat present in the BSA.
Ornduff's meadowfoam <i>Limnanthes douglassi</i> ssp. <i>ornduffii</i> .	1B.1	Nov-May	Meadows and seeps. Elev. 35-65 ft.	None. There are no meadows or seeps present in the BSA.
Arcuate bushmallow <i>Malacothamnus arcuatus</i> var. <i>arcuatus</i>	1B.2	Apr-Sep	Chaparral, cismontane woodland. Elev. 50-1,165 ft.	None. There is no woodland or chaparral habitat present in the BSA.
Marsh microseris <i>Microseris paludosa</i>	1B.2	Apr-Jul	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. Elev. 15-1,165 ft.	None. There is no forest, woodland, scrub or grassland habitat present in the BSA.

Scientific Name Common Name	Status*	Blooming Period	Habitat	Potential to Occur within the Study Area
Woodland woollythreads <i>Monolopia gracilens</i>	1B.2	Feb-Jul	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, North Coast coniferous forest (openings), valley and foothill grasslands. Elev.339-3,935 ft.	None. While the riparian corridor in the BSA provides marginally suitable habitat for this species, it was not found during previous botanical surveys. In addition, no vegetation will be removed from the riparian corridor as part of the Project.
White-rayed pentachaeta <i>Pentachaeta bellidiflora</i>	1B.1, FE, SE	Mar-May	Cismontane woodland, valley and foothill grassland (often serpentinite). Elev. 115-2,035 ft.	None. There is no woodland, or grassland habitat present in the BSA.
Choris' popcornflower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	1B.2	Mar-Jun	Chaparral, coastal prairie, coastal scrub. Elev. 10-525 ft.	None. There is no chaparral, prairie, or scrub habitat present in the BSA.
Oregon polemonium <i>Polemonium carneum</i>	2B.2	Apr-Sep	Coastal prairie, coastal scrub, lower montane coniferous forest. Elev. 0-6,005 ft.	None. There is no prairie, scrub, or forest habitat present in the BSA.
Hickman's cinquefoil <i>Potentilla hickmanii</i>	1B.1, FE, SE	Apr-Aug	Coastal bluff scrub, closed-cone coniferous forest, vernal mesic meadows and seeps, freshwater marshes and swamps. Elev. 35-490 ft.	None. There is no scrub, forest, meadow, seep, or marsh habitat present in the BSA.
Chaparral ragwort <i>Senecio aphanactis</i>	1B.2	Jan-May	Chaparral, cismontane woodland, coastal scrub. Elev. 50-2,625 ft.	None. There is no chaparral, woodland, or scrub habitat present in the BSA.
Scouler's catchfly <i>Silene scouleri</i>	2B.2	Mar-Sep	Coastal bluff scrub, coastal prairie, valley and foothill grassland. Elev. 0-1,970 ft.	None. There is no scrub, prairie, or grassland habitat present in the BSA.
San Francisco campion <i>Silene verecunda</i> ssp. <i>verecunda</i>	1B.2	Feb-Aug	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Elev. 100-2,115 ft.	None. There is no scrub, chaparral, prairie, or grassland habitat present in the BSA.

<i>Scientific Name</i> Common Name	Status*	Blooming Period	Habitat	Potential to Occur within the Study Area
Saline clover <i>Trifolium hydrophilum</i>	1B.2	Apr-Jun	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elev. 0-985 ft.	None. There is no marsh, grassland, or vernal pool habitat present in the BSA.
San Francisco owl's-clover <i>Triphysaria floribunda</i>	1B.2	Apr-Jun	Coastal prairie, coastal scrub, valley and foothill grassland. Elev. 35-525 ft.	None. There is no prairie, scrub, or grassland habitat present in the BSA.
Coast triquetrella <i>Triquetrella californica</i>	1B.2	moss	Coastal bluff scrub, coastal scrub. Elev. 35-330 ft.	None. There is no scrub habitat present in the BSA.

* Status:

FE: Federal Endangered
 FT: Federal Threatened
 SE: California State Endangered
 ST: California State Threatened

California Rare Plant Rank (CRPR):
 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
 1B: Plants rare, threatened, or endangered in California or elsewhere
 2B: Plants rare, threatened, or endangered in California but more common elsewhere
 0.1: Seriously threatened in California
 0.2: Moderately threatened in California

4.3 Special-Status Wildlife Species

For the purposes of this report, special-status wildlife species include those listed as endangered, threatened, proposed, or candidate for listing by the USFWS or the CDFW. Other wildlife species regarded as having special status by the State of California include species of special concern, as listed by the CDFW on the California Natural Diversity Database. Additional avian species receive special protection under the federal Bald and Golden Eagle Protection Act and the federal Migratory Bird Treaty Act. The California Fish & Game Code provides protection for “fully protected birds”, “fully protected mammals”, “fully protected reptiles and amphibians”, and “fully protected fish.”

4.3.1 Desktop Review

Database searches and review of other background resources found 49 special-status wildlife species documented within the Half Moon Bay 7.5-minute quadrangle where the BSA occurs and the six surrounding quadrangles. Of these species, none were determined to have potential, and two are unlikely to occur. Table 2 below provides a complete evaluation of potential for special-status wildlife to occur. The three criteria most important in determining species presence include known range, presence of suitable habitat, and nearby known occurrences. The potential for each special-status species to occur in the project area was then determined according to the following criteria:

- **None:** suitable habitat is entirely absent and there is no documented evidence that the species could occur in the BSA.
- **Unlikely:** marginally suitable habitat is present, and project site is within the range of the species being evaluated, however due to limitations described in the report, the species is unlikely to occur within the BSA. Species was not observed during wildlife surveys.
- **Low Potential:** suitable or marginally suitable habitat for the species being evaluated is present, but few documented records occur within a 5-mile radius and some records within 10-mile radius. Species was not observed during wildlife surveys.
- **Moderate potential:** suitable habitat for the species being evaluated is present and there are nearby documented records. Species was not observed during wildlife surveys.
- **High potential:** suitable habitat for the species being evaluated is present and there are recent documented records of the species occurring within or adjacent to the BSA. Species was not observed during wildlife surveys.
- **Present:** suitable habitat for the species being evaluated is present and the species has been documented on BSA. Species may or may not have been observed during wildlife surveys.

TABLE 2. SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR WITHIN THE BSA

<i>Scientific Name</i>	Status*	Habitat	Potential to Occur within the BSA
Common Name			
Invertebrates			
<i>Bombus occidentalis</i> Western bumble bee	SCE	Valley and foothill grasslands of Coastal California east to the Sierra Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Unlikely. The only CNDDDB records within the database search was for bees collected for museum specimens from 1951 to 1968. Vegetation removal, if required would be minimal and would not be likely to prevent bumble bees from foraging.
<i>Callophrys mossii bayensis</i> San Bruno elfin butterfly	FE	Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain (San Mateo County). Colonies are located on steep, north facing slopes within the fog belt. Larval host plan is <i>Sedum spathulifolium</i> .	None. The microhabitat of steep north-facing slopes, rock outcrops, and mountain peaks are absent from the BSA.
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco.	None. Serpentine rock outcrops are absent from the BSA.
<i>Icaricia icarioides missionensis</i> Mission blue butterfly	FE	Inhabits grasslands and coastal prairies of the San Francisco peninsula. Three larval host plants are; <i>Lupinus albifrons</i> , <i>L. varicolor</i> , and <i>L. Formosus</i> .	None. The BSA is developed. No <i>Lupinus</i> species were observed during the July 7, 2025, site survey.
<i>Speyeria zerene myrtleae</i> Myrtle's silverspot butterfly	FE	Restricted to the foggy, coastal dunes/hills of the Point Reyes peninsula.	None. The CNDDDB described this species as extirpated from San Mateo County.

<i>Scientific Name</i>	Status*	Habitat	Potential to Occur within the BSA
Common Name			
<i>Danaus Plexippus, pop. 1</i> Monarch butterfly	FPT	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (<i>eucalyptus</i> , Monterey pine, cypress), with nectar and water sources nearby.	None. Although there is a grove of eucalyptus trees just east of the BSA along Roosevelt Creek there are no records for this species at this location. The nearest CNDDDB occurrence (#65) for monarch butterflies roosting in a grove of eucalyptus (approximately 2.1 miles northwest), the grove would not be disturbed by the Project.
Fish			
<i>Accipenser medirostris pop. 1</i> Green sturgeon – southern DPS	FT	Aquatics, estuarine, marine (bay) and Sacramento/San Joaquin flowing waters.	None. There is no suitable aquatic habitat present in the BSA.
<i>Eucyclogobius newberryi</i> Tidewater goby	FE	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River (Del Norte County).	None. There is no suitable aquatic habitat present in the BSA.
<i>Oncorhynchus mykiss irideus pop. 8</i> Steelhead – central California coast DPS	FT	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County. Also includes the drainages of San Francisco and San Pablo Bay.	None. There is no suitable aquatic habitat present in the BSA.
<i>Spirinchus thaleichthys Pop. 2</i> Longfin smelt – San Francisco Bay-Delta DPS	FE, ST	Pelagic and anadromous within the Sacramento-San Joaquin River Delta, San Francisco Bay, and Gulf of the Farallones. Spawns in lower freshwater reaches of Sacramento and San Joaquin Rivers.	None. There is no suitable aquatic habitat present in the BSA.

<i>Scientific Name</i>	Status*	Habitat	Potential to Occur within the BSA
Common Name			
Amphibians			
<i>Ambystoma californiense</i> pop. 1 California tiger salamander	FT, ST	Lives in vacant or mammal-occupied burrows throughout most of the year, in grassland, savanna, or open woodland habitats. Need underground refuges, and vernal pools or other seasonal water sources for breeding.	None. There is no suitable aquatic breeding habitat in or near the BSA.
<i>Dicamptodon ensatus</i> California giant salamander	SSC	Occur in west coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae occurs in cold, clear streams, occasionally in lakes and ponds. Adults occur in wet forests under rocks and logs near streams and lakes.	None. There is marginally suitable habitat in the Roosevelt Creek riparian corridor, however the Project site is developed and does not have the necessary features for the survival of this species.
<i>Aneides niger</i> Santa Cruz black salamander	SSC	Occur in mixed deciduous and coniferous woodlands and coastal grassland in San Mateo, Santa Cruz, and Santa Clara counties. Adults occur under rocks, talus, and damp woody debris.	None. There is marginally suitable habitat in the Roosevelt Creek riparian corridor, however the Project site is developed and does not have the necessary features for the survival of this species.
<i>Rana draytonii</i> California red-legged frog	FT, SSC	Lowland and foothills in or near permanent sources of deep water with dense, shrubby or emergent vegetation.	Unlikely. This species could transit through Roosevelt Creek in the BSA while foraging or dispersing however there is no suitable breeding habitat in the creek and the uplands within the Project footprint does not provide suitable breeding habitat; therefore, this species is highly unlikely to be impacted by the project.

<i>Scientific Name</i>	Status*	Habitat	Potential to Occur within the BSA
Common Name			
<i>Rana boylei</i> pop. 4 Foothill yellow-legged frog – central coast DPS	FE SE,	Sierra Nevada from South Fork American River subbasin (HU 8) in El Dorado County south to Tehachapi Mountains in Kern County. Party shaded shallow streams and riffles, with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	None. This species is not known to occur in Roosevelt Creek adjacent to the BSA and would not occur in the developed Project footprint.
Reptiles			
<i>Actinemys marmorata</i> Northwestern pond turtle	FPT, SSC	Streams, ponds, lakes, and permanent and ephemeral wetlands. Nest in terrestrial habitat usually in dry soil with sparse vegetation.	None. The BSA, including Roosevelt Creek, does not provide suitable foraging, basking, or breeding opportunities.
<i>Thamnophis sirtalis tetrataenia</i> San Francisco garter snake	FE, SE, FP	Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	Unlikely. The nearest CNDDDB occurrence (31) is approximately 1.3 miles southeast of the BSA where an individual snake was found at this unspecified location in the 1980's. Roosevelt Creek provides suitable foraging habitat however there are no CNDDDB records for this species in the creek or surrounding area therefore it is unlikely that they occur in the BSA vicinity.
Birds			
<i>Circus hudsonius</i> Northern harrier	SSC	Coastal salt marsh and freshwater marshes; nests and forages in grasslands; nests on ground in shrubby vegetation, usually at marsh edges.	None. There is no suitable nesting habitat in the BSA or vicinity.

<i>Scientific Name</i>	Status*	Habitat	Potential to Occur within the BSA
Common Name			
<i>Elanus caeruleus</i> White-tailed kite	FP	Open grassland and agricultural areas throughout Central California.	Low. This raptor could nest in the eucalyptus grove at the eastern edge of the BSA. Preconstruction nesting bird surveys are recommended.
<i>Accipiter striatus</i> Sharp-shinned hawk (nesting)	WL	Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. All habitats except alpine, open prairie, and bare desert used in winter.	Low. This raptor could nest in the eucalyptus grove at the eastern edge of the BSA. Preconstruction nesting bird surveys are recommended.
<i>Accipiter cooperii</i> Copper's hawk (nesting)	WL	Nests primarily in deciduous forests; forages in open woodlands.	Low. This raptor could nest in the taller riparian vegetation and eucalyptus grove at the eastern edge of the BSA. Preconstruction nesting bird surveys are recommended.
<i>Buteo regalis</i> Ferruginous hawk (wintering)	BCC/WL	Inhabits open country. Winters in small numbers along California coast and inland valleys.	None. This raptor could occur in the general area in the winter; however the Project is not likely to disturb wintering hawks.
<i>Buteo swainsonii</i> Swainson's hawk (nesting)	BCC/ST	Breeds in stands with few trees in juniper-sage flats, riparian corridors and oak savannah. Requires suitable adjacent foraging areas such as	None. This raptor may occur in the vicinity in the winter however there is no suitable breeding habitat.
<i>Aquila chrysaetos</i> Golden eagle (nesting and wintering)	BCC/WL/FP	Typically frequents rolling foothills, mountain areas, sage-juniper flats and deserts.	None. This eagle could occur in the general area in the winter; however the Project is not likely to disturb wintering hawks. There is no suitable nesting habitat in or near the BSA.
<i>Falco peregrinus anatum</i> American peregrine falcon	FD, SD, BCC, FP	Nest near wetlands, lake rivers, or other water, on cliffs, banks, dunes, mounds, also, human-made structures. Nests consist of a scrape or a depression or ledge in an open site.	None. There is no suitable nesting habitat in the BSA or vicinity.

<i>Scientific Name</i>	Status*	Habitat	Potential to Occur within the BSA
Common Name			
<i>Falco columbarius</i> Merlin (wintering)	WL	Breeds in Canada, winters in a variety of California habitats, including grasslands, savannahs, wetlands, etc.	None. This species could occur in the general area in the winter; however the Project is not likely to disturb wintering hawks.
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	FE, SE, FP	Occur in 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.	None. There is no suitable habitat for this species in or near the BSA.
<i>Lateralis jamaicensis coturniculus</i> California black rail	ST, FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays.	None. Marshes and wet meadows are absent from the BSA and surrounding area.
<i>Charadrius nivosus nivosus</i> Western snowy plover	FT, SSC, BCC	Sandy beaches, salt pond levees and shores of large alkali lakes.	None. There is no suitable nesting habitat present in the BSA or surrounding area.
<i>Brachyramphus marmoratus</i> Marbled murrelet (nesting)	FT, SE	Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas fir. Feeds near-shore; nests inland along the coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz.	None. There is no old-growth redwood forest in or near the BSA.
<i>Asio flammeus</i> Short-eared owl (nesting)	SSC	Found in marshes, both freshwater and salt, lowland meadows, irrigated alfalfa fields. Tule patches/full grass needed for nesting and daytime seclusion. Nests on dry ground in a depression concealed in vegetation.	None. There is no suitable nesting habitat present in the BSA or surrounding area.

<i>Scientific Name</i>	Status*	Habitat	Potential to Occur within the BSA
Common Name			
<i>Athene cunicularia</i> Burrowing owl	SCE, SSC, BCC	Nests in open, dry annual or perennial grasslands, deserts, and scrublands, characterized by low-growing vegetation.	None. No suitable open areas with low-growing vegetation for nesting in the BSA or surroundings.
<i>Contopus cooperi</i> Olive sided flycatcher (nesting)	BCC/SSC	Uncommon to common, summer resident in a wide variety of forest and woodland habitats below 2800 meters throughout California. Requires large, tall trees, usually conifers, for nesting and roosting sites.	Low. A fairly common nesting species in Half Moon Bay in areas with taller trees particularly on the inland side of the city where taller eucalyptus and Monterey cypress occur.
<i>Lanius ludovicianus</i> Loggerhead shrike	BCC/SSC	Habitat includes open areas such as desert, grasslands, and savannah. Nests in thickly foliated trees or tall shrubs. Forages in open habitats which contain trees, fence posts, utility poles, and other perches.	None. The San Mateo County Breeding Bird Atlas indicates past probable breeding just south of Half Moon Bay. Small numbers occur in Half Moon Bay in winter and during migration. If shrikes transit through the area in the winter or during migration, they are not likely to be disturbed by the Project.
<i>Progne subis</i> Purple martin	SSC	Uses a variety of wooded, low-elevation habitats throughout California. Uses hardwood and hardwood-conifer habitats as well as riparian habitats. Now a rare and local breeder on the coast and in interior mountain ranges.	Unlikely. Breeding populations of purple martins are extremely rare, however this species should be included in preconstruction nesting bird surveys.
<i>Riparia riparia</i> Bank swallow	ST	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, or ocean to dig nesting holes.	None. No vertical banks/cliffs in or near the BSA.
<i>Geothlypis trichas sinuosa</i> Saltmarsh common yellowthroat	BCC, SSC	Resident of the San Francisco Bay region, in fresh and saltwater marshes.	None. No marshes are present or in the BSA.

<i>Scientific Name</i>	Status*	Habitat	Potential to Occur within the BSA
<i>Septophaga petechia</i> Yellow warbler	SSC, BCC	Breeds in deciduous riparian woodlands, widespread during fall migration.	Low. The San Mateo Breeding Bird Atlas lists this species as a nesting species in riparian habitat within Half Moon Bay. Nesting yellow warblers have been documented along Pilarcitos Creek in the riparian area behind Safeway and in the riparian areas upstream from the Main Street Bridge. Species is common in Half Moon Bay during fall migration.
<i>Melospiza melodia pusillula</i> Alameda song sparrow	SSC, BCC	Resident of salt marshes border south arm of San Francisco Bay. Inhabits <i>Salicornia</i> marshes; nests low in <i>Grindelia</i> bushes and <i>Salicornia</i> .	None. The BSA is not within or near a salt marsh.
<i>Ammodramus savannarum</i> Grasshopper sparrow	SSC	Found in dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches.	None. No suitable grassland habitat present for nesting.
<i>Passerculus sandwichensis alaudinus</i> Bryant's sparrow	SSC	Occupies low tidally influenced habitats, adjacent ruderal areas, moist grasslands within and just above the fog belt, and, infrequently in drier grasses.	None. No suitable grassland habitat present for nesting.
<i>Passerculus sandwichensis rostratus</i> Large-billed savannah sparrow (wintering)	SSC	Breeding habitat limited to open, low salt marsh vegetation, including grasses, picklewood, etc. around the mouth of the Colorado River and adjacent coastlines of the uppermost Gulf of California. Winters along shorelines.	None There is no suitable breeding habitat present in the BSA for this species however they could winter in the vicinity. The Project is not likely to impact wintering birds.
Mammals			

<i>Scientific Name</i>	Status*	Habitat	Potential to Occur within the BSA
Common Name			
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	SSC	Ranges throughout California in mesic areas. Roosts in the open, hanging from walls and ceiling. Extremely sensitive to human disturbance.	None. The house within the BSA does not provide suitable roosting conditions for this species.
<i>Antrozous palidus</i> Pallid bat	SSC	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires nearby water.	None. While this species could roost in the riparian corridor of Roosevelt Creek, the BSA is developed and does not provide a woodland or forest setting.
<i>Nyctinomops macrotis</i> Big free-tailed bat	SSC	Occurs in low-lying areas in Southern California. Needs high cliffs or rocky outcrops for roosting sites. Feed principally on large moths.	None. The BSA is outside of the range of this species. In addition, there are no high cliffs or rocky outcrops in or near the BSA.
<i>Taxidea taxus</i> American badger	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils in open, uncultivated ground.	None. There are no suitable open areas with friable soils in or near the BSA.
<i>Reithrodontomys raviventris</i> Salt-marsh harvest mouse	FE, SE, FP	Only occurs in the saline emergent wetlands of the San Francisco Bay and its tributaries. Pickleweed is primary habitat, but it may occur in other marsh vegetation types and in adjacent upland areas.	None. The BSA is beyond the range of this species.
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	SSC	Forest habitats of moderate canopy and moderate to dense understory. Constructs nests of shredded grass leaves and other material.	None. There is marginally suitable habitat in the riparian corridor of Roosevelt Creek, however this species would not occur in the developed area associated with the house.

* Status:

FE: Federal Endangered

Fully Protected

FT: Federal Threatened

FPT: Federal Proposed Threatened
FD: Federal Delisted
SD: State Delisted
SE: California State Endangered
ST: California State Threatened
SCE: California State Candidate Endangered
SSC: CDFW Species of Special Concern
SD: State Delisted
BCC: USFWS Bird Species of Conservation Concern
WL: CDFW Watch List

4.3.2 Wildlife Survey Results

Wildlife observed during the reconnaissance level survey included Anna's hummingbird (*Calypte anna*), California scrub-jay (*Aphelocoma californica*), white-crowned sparrow (*Zonotrichia leucophrys*), song sparrow (*Melospiza melodia*), and house sparrow (*Passer domesticus*). No special-status wildlife species were observed. Special-status species with potential to occur in the riparian corridor in the BSA include California red-legged frog (*Rana draytonii*), and San Francisco garter snake. These species are described below along with their potential to occur in the Project footprint.

4.3.2.1 California Red-legged Frog

California red-legged frogs (CRLF) are a federally threatened species and a state species of special concern. They occur throughout the Sierra Nevada foothills and the Coast Range Mountains in southern Mendocino County, southward to northern Baja California Mexico. Breeding populations are believed to be extirpated from the California Central Valley. Adult frogs are large, capable of growing up to five inches long. Their overall color varies from brown, gray, olive, or reddish brown with the ventral surface having a whitish or cream color with gray or black mottling and overall red or reddish orange. Although the red coloration is variable among individuals, the underside of the feet in most adult frogs are almost always red. CRLF are typically found in ponds, marshes, streams, lagoons, and similar waterways that provide breeding and foraging opportunities. CRLF breeding usually occurs from late November (after the onset of rain) to late April in ponded or slow-moving water. Females attach clusters of numerous eggs are attached to emergent vegetation. Hatching occurs in 6-14 days depending on water temperatures. Larvae metamorphose the following spring. (Thomson et al. 2016).

There are 33 CRLF CNDDDB occurrences within a five-mile radius of the BSA (Appendix A; Figure 5) however none occur within Roosevelt Creek. The nearest CNDDDB record are for a CRLF observed in Frenchman's Creek in 2007 at a location approximately one mile east of the BSA (occurrence 925). This species could transit through Roosevelt Creek in the BSA while foraging or dispersing however there is no suitable breeding habitat in the creek and the uplands within the Project footprint does not provide suitable breeding habitat; therefore, this species is not expected to be impacted by the project.

4.3.2.2 San Francisco Garter Snake

The San Francisco garter snake (SFGS) is a federal and state endangered, and a state fully protected species. This subspecies of garter snake is found only on the San Francisco Peninsula from near the southern San Francisco County line south to northern Santa Cruz County. They are found in or adjacent to shallow freshwater aquatic habitats with gradual transitions to water. They tend to avoid steeply sloped banks. Terrestrial habitats consist of contiguous uplands meadow or riparian vegetation adjacent to their preferred aquatic habitat. They have a greenish-blue or blue belly and red on top of the head. Their dorsal coloration is typically black or dark brown with striping that varies from cream, yellow, blue, or pale green. Adult snakes commonly grow to 39 inches in length but can sometimes be as long as 47 inches. The mating season for SFGS extends

from February to May and can resume briefly in the fall. Fertilized females give birth in the summer to brood sizes ranging from six to 35 young. (USFWS 2020).

According to CDFW (email from Brian Acord to Sandra Etchell dated July 22, 2025, there are five CNDDDB occurrences within a five-mile radius of the BSA and two of those occurrences are within a three-mile radius. The nearest CNDDDB occurrence (31) is approximately 1.3 miles southeast of the BSA. An individual snake was found at this unspecified location in the 1980's. Roosevelt Creek provides suitable foraging habitat however there are no CNDDDB records for this species in the creek or surrounding area therefore it is unlikely that they occur in the BSA vicinity.

4.3.2.3 Nesting Birds

Birds nest in a variety of habitats and substrates. There is abundant suitable nesting habitat throughout the BSA. Several birds were observed during the reconnaissance level survey. Birds that could either nest or winter in the area that are listed Appendix C of the Half Moon Bay LUP (City of Half Moon Bay 2020) include:

- White tailed kite (*Elanus caeruleus*)
- Sharp-shinned hawk (*Accipiter striatus*)
- Cooper's hawk (*Accipiter cooperii*)
- Olive sided flycatcher (*Contopus cooperi*)
- Purple martin (*Progne subis*)
- Yellow warbler (*Septophaga petechia*)

These birds, habitat descriptions and potential for occurrence are included in Table 2 below and should be included in the preconstruction nesting birds surveys.

4.4 Wildlife Movement and Migration Corridors

The ACE database mapped the BSA region as a Rank 1 Having Limiting Connectivity Movement in regards to the movement of terrestrial wildlife. This ranking is defined as consisting of areas where land use may limit options for providing connectivity (e.g., agriculture, urban) or no connectivity importance has been identified in models. Some mammals that likely move through the area include coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), mountain lion (*Puma concolor*), bobcat (*Lynx rufus*), mule deer (*Odocoileus hemionus*), and Virginia opossum (*Didelphis virginiana*).

4.5 Sensitive Natural Community Surveys

The Central Valley Arroyo Willow Riparian Forest in the BSA is not a sensitive natural community (CDFW 2025) due to the presence of *Rubus* species it is ranked as S4. However riparian corridors receive other protection as ESHAs and are also within CDFW jurisdiction.

4.6 Critical Habitat

The BSA is not within USFWS or NOAA designated critical habitat (USFWS 2025c, NOAA 2025).

4.7 Aquatic Resources

The following sections summarize the findings of aquatic resources delineation surveys performed within the BSA.

4.7.1 Potentially Jurisdictional Wetlands and Other Waters

No potentially jurisdictional wetlands were found within the BSA. Roosevelt Creek is a jurisdictional water of the U.S. and State because it falls within the regulatory criteria described above in Section 2.

5 Conclusions and Recommendations

The following conclusions and recommendations are included to summarize the findings of this report and to provide measures to protect biological resources in the BSA and the Project footprint.

1. The ESHA buffer zones described in section 2.3.1 are shown in Appendix A Figure 3. The City will make the final decision for the setback buffer.
2. Aquatic resources, and special-status wildlife species will be protected by the establishment of a buffer zone, so no further protection is recommended.
3. Preconstruction nesting bird survey should be conducted during bird breeding season (February 1 through August 31) by a qualified biologist who is familiar with the nesting behavior of a variety of species and can establish protective buffers around the nest based upon the type of construction activity. Nest buffers should be adhered to by all construction related personnel and can only be removed by the biologist after the nest is no longer active.
4. Other than non-native, invasive species that will be removed as part of the riparian corridor enhancement effort, vegetation removal, if necessary, should be kept to a minimum. All work in the riparian corridor must be conducted by manual labor with the use of hand tools. Work should be conducted outside of bird breeding season (September 1 through January 31) in order to prevent the inadvertent destruction of bird nests. Only enhancement work described in the Project Description above can be conducted without a CDFW Streambed Alteration Agreement.

6 References

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Appendices

Appendix B Database Query Results



SOURCE: Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Maxar



SOURCE: Maxar, Microsoft, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

FIGURE 2



- ★ Project Location
- ◻ Biological Study Area - 200ft
- ◻ Riparian Forest
- ◻ Riparian Forest Buffer - 25ft
- ◻ Riparian Forest Buffer - 35ft
- ◻ Roosevelt Creek
- ◻ Parcel Boundaries

SOURCE: Microsoft, Vantor, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

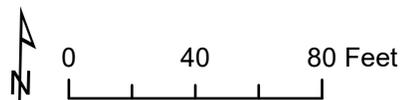


FIGURE 3
Riparian Corridor Buffer Zones
117 Alameda Ave, Half Moon Bay



SOURCE: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

FIGURE 4



SOURCE: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

FIGURE 5

Appendix B Database Query Results



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Half Moon Bay (3712244) OR Montara Mountain (3712254) OR San Mateo (3712253) OR Woodside (3712243) OR La Honda (3712233) OR San Gregorio (3712234)) AND Taxonomic Group (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Acanthomintha duttonii</i> San Mateo thorn-mint	PDLAM01040	Endangered	Endangered	G1	S1	1B.1
<i>Agrostis blasdalei</i> Blasdale's bent grass	PMPOA04060	None	None	G2G3	S2	1B.2
<i>Allium peninsulare var. franciscanum</i> Franciscan onion	PMLIL021R1	None	None	G4G5T2	S2	1B.2
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
<i>Aphyllon robbinsii</i> Robbins' broomrape	PDORO040Q0	None	None	G1	S1	1B.1
<i>Arctostaphylos andersonii</i> Anderson's manzanita	PDERI04030	None	None	G2	S2	1B.2
<i>Arctostaphylos montaraensis</i> Montara manzanita	PDERI042W0	None	None	G1	S1	1B.2
<i>Arctostaphylos regismontana</i> Kings Mountain manzanita	PDERI041C0	None	None	G2	S2	1B.2
<i>Astragalus pycnostachyus var. pycnostachyus</i> coastal marsh milk-vetch	PDFAB0F7B2	None	None	G2T2	S2	1B.2
<i>Centromadia parryi ssp. parryi</i> pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
<i>Chloropyron maritimum ssp. palustre</i> Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
<i>Chorizanthe cuspidata var. cuspidata</i> San Francisco Bay spineflower	PDPGN04081	None	None	G2T1	S1	1B.2
<i>Cirsium andrewsii</i> Franciscan thistle	PDAST2E050	None	None	G3	S3	1B.2
<i>Cirsium fontinale var. fontinale</i> fountain thistle	PDAST2E161	Endangered	Endangered	G2T1	S1	1B.1
<i>Collinsia multicolor</i> San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<i>Dirca occidentalis</i> western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
<i>Eriophyllum latilobum</i> San Mateo woolly sunflower	PDAST3N060	Endangered	Endangered	G1	S1	1B.1
<i>Fissidens pauperculus</i> minute pocket moss	NBMUS2W0U0	None	None	G3?	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Fritillaria biflora</i> var. <i>ineziana</i> Hillsborough chocolate lily	PMLIL0V0M1	None	None	G3G4T1	S1	1B.1
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Grindelia hirsutula</i> var. <i>maritima</i> San Francisco gumplant	PDAST470D3	None	None	G5T1Q	S1	3.2
<i>Hesperevax sparsiflora</i> var. <i>brevifolia</i> short-leaved evax	PDASTE5011	None	None	G4T3	S3	1B.2
<i>Hesperolinon congestum</i> Marin western flax	PDLIN01060	Threatened	Threatened	G1	S1	1B.1
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
<i>Horkelia marinensis</i> Point Reyes horkelia	PDROS0W0B0	None	None	G2	S2	1B.2
<i>Hypogymnia schizidiata</i> island tube lichen	NLT0032640	None	None	G2G3	S2	1B.3
<i>Lasthenia californica</i> ssp. <i>macrantha</i> perennial goldfields	PDAST5L0C5	None	None	G3T2	S2	1B.2
<i>Leptosiphon croceus</i> coast yellow leptosiphon	PDPLM09170	None	Endangered	G1	S1	1B.1
<i>Leptosiphon rosaceus</i> rose leptosiphon	PDPLM09180	None	None	G1	S1	1B.1
<i>Lessingia arachnoidea</i> Crystal Springs lessingia	PDAST5S0C0	None	None	G2	S2	1B.2
<i>Limnanthes douglasii</i> ssp. <i>ornduffii</i> Ornduff's meadowfoam	PDLIM02039	None	None	G4T1	S1	1B.1
<i>Malacothamnus arcuatus</i> var. <i>arcuatus</i> arcuate bushmallow	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
<i>Microseris paludosa</i> marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	PDBOR0V061	None	None	G3T1Q	S1	1B.2
<i>Polemonium carneum</i> Oregon polemonium	PDPLM0E050	None	None	G3G4	S2	2B.2
<i>Potentilla hickmanii</i> Hickman's cinquefoil	PDROS1B370	Endangered	Endangered	G1	S1	1B.1
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Silene scouleri ssp. scouleri</i> Scouler's catchfly	PDCAR0U1MC	None	None	G5T4T5	S2S3	2B.2
<i>Silene verecunda ssp. verecunda</i> San Francisco campion	PDCAR0U213	None	None	G5T1	S1	1B.2
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Triphysaria floribunda</i> San Francisco owl's-clover	PDSCR2T010	None	None	G2?	S2?	1B.2
<i>Triquetrella californica</i> coastal triquetrella	NBMUS7S010	None	None	G2	S2	1B.2
<i>Usnea longissima</i> Methuselah's beard lichen	NLLEC5P420	None	None	G5	S4	4.2

Record Count: 45



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



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

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Acipenser medirostris pop. 1</i> green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	SSC
<i>Actinemys marmorata</i> northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
<i>Ambystoma californiense pop. 1</i> California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
<i>Aneides niger</i> Santa Cruz black salamander	AAAAD01070	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
<i>Brachyramphus marmoratus</i> marbled murrelet	ABNNN06010	Threatened	Endangered	G3	S2	
<i>Calicina minor</i> Edgewood blind harvestman	ILARA13020	None	None	G1	S1	
<i>Callophrys mossii bayensis</i> San Bruno elfin butterfly	IILEPE2202	Endangered	None	G4T2	S2	
<i>Charadrius nivosus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Danaus plexippus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	Proposed Threatened	None	G4T1T2Q	S2	
<i>Dicamptodon ensatus</i> California giant salamander	AAAAH01020	None	None	G2G3	S2S3	SSC
<i>Dipodomys venustus venustus</i> Santa Cruz kangaroo rat	AMAFD03042	None	None	G4T1	S1	
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Eumetopias jubatus</i> Steller sea lion	AMAJC03010	Delisted	None	G3	S2	
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened	None	G4G5T1	S3	
<i>Falco columbarius</i> merlin	ABNKD06030	None	None	G5	S3S4	WL
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Icaricia icarioides missionensis</i> Mission blue butterfly	IILEPG801A	Endangered	None	G5T2	S2	
<i>Ischnura gemina</i> San Francisco forktail damselfly	IIODO72010	None	None	G2	S2	
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
<i>Lichnanthe ursina</i> bumblebee scarab beetle	IICOL67020	None	None	G2	S2	
<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S	None	None	G5T2T3	S2	SSC
<i>Microcina edgewoodensis</i> Edgewood Park micro-blind harvestman	ILARA47010	None	None	G1	S1	
<i>Myotis thysanodes</i> fringed myotis	AMACC01090	None	None	G4	S3	
<i>Nannopterum auritum</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Oncorhynchus mykiss irideus pop. 8</i> steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T3Q	S3	SSC
<i>Pomatiopsis californica</i> Pacific walker	IMGASJ9020	None	None	G1	S1	
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S2	FP
<i>Rana boylei pop. 4</i> foothill yellow-legged frog - central coast DPS	AAABH01054	Threatened	Endangered	G3T2	S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S3	FP
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S3	
<i>Sorex vagrans paludivagus</i> Monterey vagrant shrew	AMABA01072	None	None	G5T1	S2	
<i>Speyeria zerene myrtleae</i> Myrtle's silverspot butterfly	IILEPJ608C	Endangered	None	G5T1	S1	
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	None	Threatened	G5	S1	
<i>Spirinchus thaleichthys pop. 2</i> longfin smelt - San Francisco Bay-Delta DPS	AFCHB03040	Endangered	Threatened	G5TNRQ	S1	
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis sirtalis tetrataenia</i> San Francisco gartersnake	ARADB3613B	Endangered	Endangered	G5T2Q	S2	FP
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	

Record Count: 49

IPaC resource list

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

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

Location

San Mateo County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building

Endangered species

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

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

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

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

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

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

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

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

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

Birds

NAME	STATUS
California Least Tern <i>Sternula antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Marbled Murrelet <i>Brachyramphus marmoratus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4467	Threatened
Western Snowy Plover <i>Charadrius nivosus nivosus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

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

Amphibians

NAME	STATUS
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California Red-legged Frog *Rana draytonii* Threatened

Wherever found

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

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

Foothill Yellow-legged Frog *Rana boylei* Threatened

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

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

Fishes

NAME

STATUS

Tidewater Goby *Eucyclogobius newberryi* Endangered

Wherever found

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

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

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus* Proposed Threatened

Wherever found

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

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

Critical habitats

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

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

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

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information](#)

[on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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/1626	Breeds Jan 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> 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

Probability of Presence Summary

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

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that

week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

- 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 $0.05/0.25 = 0.2$.
- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Breeding Season (■)

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

Survey Effort (|)

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

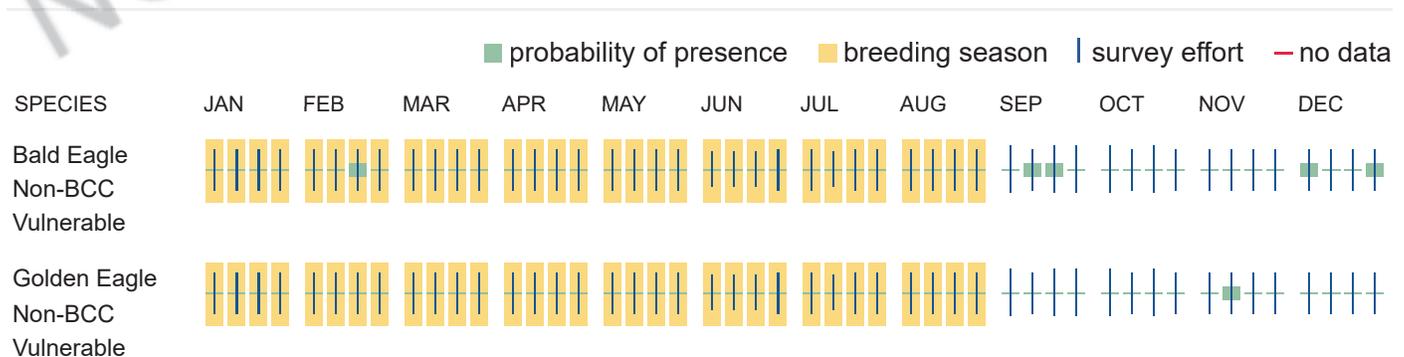
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

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

Survey Timeframe

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



Bald & Golden Eagles FAQs

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

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

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 line or no data line (red horizontal) 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 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 and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are 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 resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), 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.

Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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 $0.05/0.25 = 0.2$.

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.

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.

Migratory birds

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

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

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases [birds of concern](#), including [Birds of Conservation Concern \(BCC\)](#), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the [Nationwide avoidance and minimization measures for birds](#) document, and any other project-specific avoidance and minimization measures suggested at the link [Measures for avoiding and minimizing impacts to birds](#) for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory](#)

[Birds and Eagles document](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Allen's Hummingbird <i>Selasphorus sasin</i> 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
Ashy Storm-petrel <i>Hydrobates homochroa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/7237	Breeds May 1 to Jan 15
Bald Eagle <i>Haliaeetus leucocephalus</i> 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/1626	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</i> 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/8	Breeds Apr 1 to Aug 15
Black Oystercatcher <i>Haematopus bachmani</i> 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 Skimmer <i>Rynchops niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15

<p>Black Storm-petrel <i>Hydrobates melania</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 15 to Nov 15
<p>Black Turnstone <i>Arenaria melanocephala</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere
<p>Brandt's Cormorant <i>Urile penicillatus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 15 to Sep 15
<p>Bullock's Oriole <i>Icterus bullockii</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Mar 21 to Jul 25
<p>California Gull <i>Larus californicus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 1 to Jul 31
<p>California Thrasher <i>Toxostoma redivivum</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jan 1 to Jul 31
<p>Clark's Grebe <i>Aechmophorus clarkii</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jun 1 to Aug 31
<p>Common Yellowthroat <i>Geothlypis trichas sinuosa</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/2084</p>	Breeds May 20 to Jul 31
<p>Elegant Tern <i>Thalasseus elegans</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/8561</p>	Breeds Apr 5 to Aug 5

<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Heermann's Gull <i>Larus heermanni</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 31
<p>Lawrence's Goldfinch <i>Spinus lawrencei</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9464</p>	Breeds Mar 20 to Sep 20
<p>Marbled Godwit <i>Limosa fedoa</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Northern Harrier <i>Circus hudsonius</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/8350</p>	Breeds Apr 1 to Sep 15
<p>Nuttall's Woodpecker <i>Dryobates nuttallii</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9410</p>	Breeds Apr 1 to Jul 20
<p>Olive-sided Flycatcher <i>Contopus cooperi</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31
<p>Red Knot <i>Calidris canutus roselaari</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/8880</p>	Breeds elsewhere

<p>Santa Barbara Song Sparrow <i>Melospiza melodia graminea</i> 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/5513</p>	Breeds Mar 1 to Sep 5
<p>Scripps's Murrelet <i>Synthliboramphus scrippsi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Feb 20 to Jul 31
<p>Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480</p>	Breeds elsewhere
<p>Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910</p>	Breeds Mar 15 to Aug 10
<p>Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743</p>	Breeds Jun 1 to Aug 31
<p>Western Gull <i>Larus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 21 to Aug 25
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere
<p>Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental](#)

[Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

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

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

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

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

Breeding Season (■)

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

Survey Effort (|)

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

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

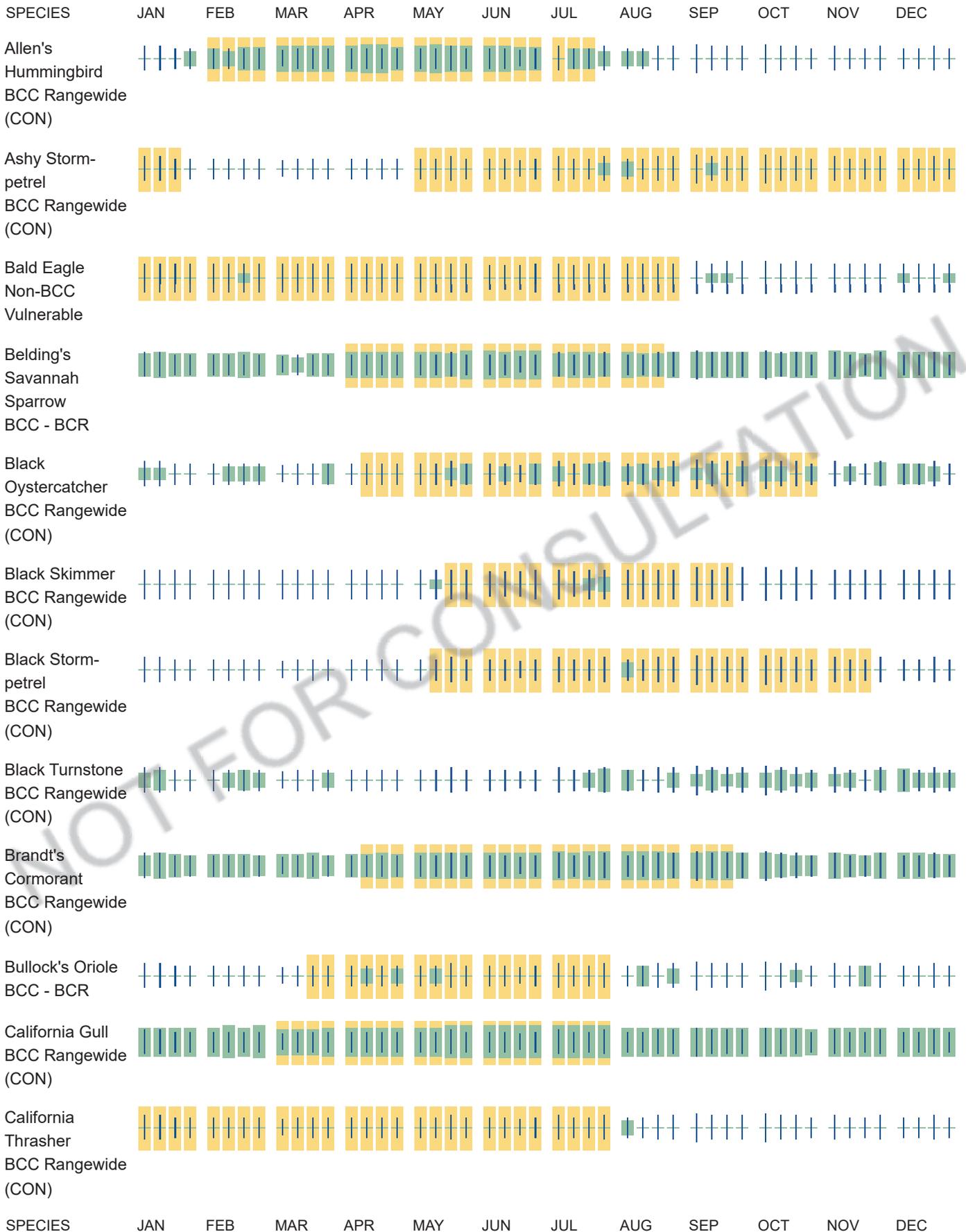
No Data (-)

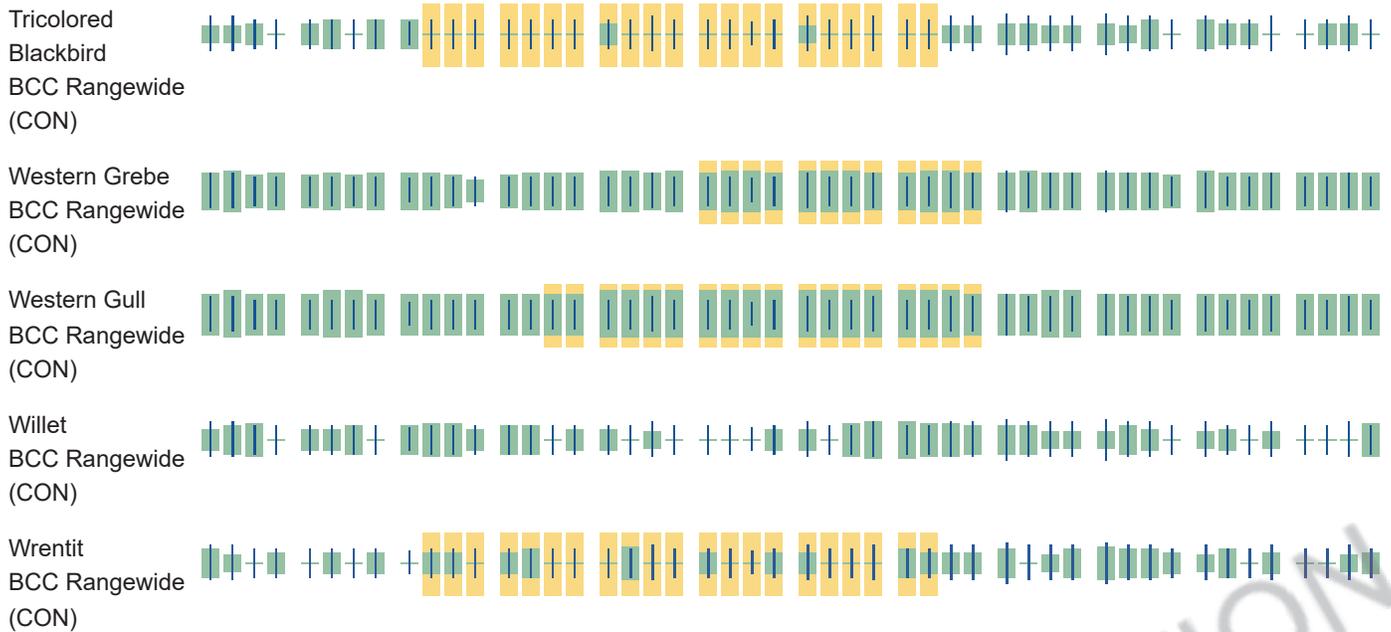
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

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

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





Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed 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 [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

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) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection 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, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

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

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

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

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

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view 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 IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), 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 [Bald and Golden Eagle Protection 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 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 BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

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.

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 look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 does not represent all birds present in your project area. 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 and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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 $0.05/0.25 = 0.2$.

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.

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.

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

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

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

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

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

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

Appendix C Observed Species

Reconnaissance Level Surveys conducted July 7, 2025

Plant Species Observed

Scientific Name	Common Name
<i>Conium maculatum</i> *	Poison hemlock
<i>Cotoneaster franchetii</i> *	Cotoneaster
<i>Delairea odorata</i> *	Cape ivy
<i>Equisetum arvense</i>	Common horsetail
<i>Eucalyptus globulus</i> *	Tasmanium bluegum
<i>Hedera helix</i> *	English ivy
<i>Helminthotheca echioides</i> *	Bristly ox-tongue
<i>Raphanus sativus</i> *	Wild radish
<i>Rubus armeniacus</i> *	Himalayan blackberry
<i>Salix lasiolepis</i>	Arroyo willow
<i>Teucrius fruticans</i> *	Shrubby germander
<i>Tropaeolum majus</i> *	Garden nasturtium

*Non-native

Wildlife Species Observed

Scientific Name	Common name
<i>Calypte anna</i>	Anna's hummingbird
<i>Aphelocoma californica</i>	California scrub jay
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
<i>Melospiza melodia</i>	Song sparrow
<i>Passer domesticus</i>	House sparrow

Appendix D
Representative Photographs

Representative Photos
July 7, 2025



Photo 1. Southern edge of property (cleared by previous owner) and edge of riparian corridor. Facing east.



Photo 2. Edge of riparian corridor along Alameda Avenue. Facing south.



Photo 3. Naples Creek and example of riparian vegetation. Facing east.



Photo 4. Riparian corridor from second floor balcony. Facing southeast.



Photo 5. Three vegetation communities. Landscaped back yard (shorter vegetation in front) and transition to riparian corridor (medium vegetation) with Eucalyptus grove in background (tall trees).



Photo 6. South side of residence showing paved path, gravel pat and landscape shrubs (adding up to approximately 15 to 20 feet in width).