Appendix C

Biological Resources Supporting Information

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- NMFS Concurrence Letter
- USFWS Official Species List 2019
- USFWS Updated Species List 2020
- USFWS Re-evaluation Letter
- CNDDB 9-Quad Species List
- CNPS 9-Quad Species List
- VA Alameda Special Status Species Summary Table

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404-4731

April 9, 2021 **Refer to NMFS No:** WCRO-2021-00707

Glenn M. Elliott
Director, Environmental Program Office (003C2)
Office of Construction and Facilities Management
Department of Veterans Affairs
810 Vermont Avenue, NW
Washington, D.C. 20420

Re: Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Alameda Point Multi-Specialty Outpatient Clinic Project in Alameda County, California

Dear Mr. Elliott:

On May 6, 2020, NOAA's National Marine Fisheries Service (NMFS) received your request for a written concurrence that the Department of Veterans Affairs' (VA) implementation of the Alameda Point Multi-Specialty Outpatient Clinic Project (Project) is not likely to adversely affect (NLAA) species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA). This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA and implementing regulations at 50 CFR 402.

Thank you also for your request for consultation pursuant to the essential fish habitat (EFH) provisions in Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. 1855(b)) for this action.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The document will be available within two weeks at the Environmental Consultation Organizer [https://eco.fisheries.noaa.gov]. A complete record of this consultation is on file at NMFS North-Central Coast Office, Santa Rosa, California.

Consultation History

The VA requested formal consultation with NMFS by letter on May 6, 2020. On June 11, 2020, NMFS requested additional information by email regarding construction details, and NMFS suggested revising the VA's EFH determination from 'no effect' to 'may adversely affect'. Construction details requested by NMFS included the following items: cofferdam and dewatering activities; pile driving; volume and location of riprap; use of herbicides for non-native plant control; and the stormwater management system. On July 9, 2020, the VA provided a response by email which addressed some of the above items. On August 14, 2020, NMFS

requested additional information by email regarding construction methods and post-construction effects. On November 2, 2020, the VA responded by email with information regarding construction of the Project's outfalls. On December 17, 2020, NMFS provided a list of outstanding information needs by email to orient the new VA project manager. On January 7, 2021, NMFS and the VA's consultant, HDR, Inc., discussed by telephone the consultation process and remaining information needs.

On March 2, 2021, the VA provided a letter to NMFS revising their ESA effects determination and requested concurrence with a finding of 'not likely to adversely affect' listed species and designated critical habitat. The March 2, 2021, VA letter also provided a response to a previous NMFS information request. On March 10, 2021, the VA transmitted the Project's Noxious Weed Control Plan, Stormwater Treatment System Operations and Maintenance Manual, Stormwater Pollution Prevention Plan, information regarding the amount and location of riprap, and additional information regarding cofferdams and dewatering for construction. On a March 18, 2021 conference call, NMFS, the VA, HDR, Inc. and the U.S. Army Corps of Engineers discussed the new Project materials provided to NMFS on March 10, 2021. On March 30, 2021, the VA revised the Project's EFH effects determination by email from 'no effect' to 'may adversely affect,' and provided the remaining information requested by NMFS regarding herbicide use, habitat effects clarification, and expected post-construction stormwater quantity and quality. Sufficient information was received on March 30, 2021, for NMFS to initiate consultation.

Proposed Action and Action Area

The VA proposes to construct a development within a 112-acre upland area on Alameda Point in the County of Alameda, California. Buildings and structures will consist of a Veterans Health Administration Outpatient Clinic, Veterans Benefits Administration Outreach Office, National Cemetery Administration Columbarium, and Conservation Management Office. The proposed development is located on a portion of the former Naval Air Station Alameda property known as the VA Transfer Parcel. Proposed construction activities that may affect San Francisco Bay (Bay) shoreline and waters consist of installation of new drainage outfalls, a new stormwater management system, and rock riprap shoreline stabilization. In addition to the new VA facilities, the Project proposes to restore 7.4 acres of tidal wetland habitat, approximately 3 acres of transition zone bounding the restored tidal marsh, and enhancement of an existing 13.7-acre muted tidal wetland area. The Project will be completed in four consecutive years, and will include two in-water work periods from June 15 through November 30.

Project activities occurring in upland areas that are not expected to affect Bay waters during construction will include the following: replacement of concrete and asphalt; excavation of trenches for stormwater pipes; drainage pipe installation; and construction of the development (buildings, sidewalks, and parking lots). Excavated materials will be stored at an onsite upland soil disposal area. Once the new drainage pipes and junction boxes are in place, the excavated area will be backfilled. The remaining deteriorated drainage pipes will be abandoned in place in upland areas. In addition, a 24-inch diameter stormwater pipe will be installed for future use by the City of Alameda. The pipe will be capped until this area adjacent to the VA property is built out. It is anticipated that the City of Alameda's development of this adjacent parcel will require

authorization from the Army Corps of Engineers (Corps) and result in a future section 7 consultation between NMFS and the Corps.

To provide permeability, infiltration, treatment, and reduction of stormwater runoff from impervious areas into the Bay and Oakland Inner Harbor (Harbor), the stormwater system will include 70 bioswales and several catch basins adjacent to roads and parking areas. Bioswales are permeable soil-based retention areas designed to remove common stormwater pollutants. The upland area of the project site will be graded to match the existing drainage patterns to the maximum extent possible. Due to the site topography and relative flatness (approximately 0.1% slope) of the upland area, there is no anticipated offsite run-on to this Project's development. The stormwater system will be sized to completely infiltrate stormwater flows up to a two-year storm. The Project will reduce impervious surfaces by 4.66 acres compared to existing conditions. In addition, the overall permeability of the area is expected to increase as a result of the Project's installation of bioswales and catch basins. The 10-year stormwater volume is expected to decrease from 57.6 cubic feet per second (cfs) pre-project to 52.4 cfs post-project. Additional information regarding the Project's stormwater management system is contained in the following Project documents: Stormwater Treatment System Operations and Maintenance Manual; Stormwater Narratives; and Stormwater Pollution Prevention Plan (SWPPP). The Project is undergoing a 401 Water Quality Certification with the San Francisco Regional Water Quality Control Board (SFRWQCB) in accordance with a Clean Water Act section 404 permit issued by the U.S. Army Corps of Engineers.

Outfalls will be installed in two locations on the north shore of Alameda Point that will discharge into the Harbor, one consisting of a single 36-inch diameter drainage pipe, and the other consisting of two 36-inch diameter drainage pipes. Outfall installation will consist of trenching, installation of flared concrete end sections, and rock riprap shoreline slope stabilization (described below). Outfall construction site isolation from Bay waters will be accomplished by installing a temporary cofferdam at each of the two outfall locations. Cofferdams will be constructed by driving up to 50 steel sheet piles during daylight hours with a vibratory hammer or hydraulic press to a depth of at least 10 feet into the mud substrate. Any existing rock riprap that may impede cofferdam installation will be temporarily removed. To avoid entrapment of fish the following will occur: all cofferdam construction will occur at low tide, fish will be able to volitionally leave the partially constructed cofferdam, and the bayward sheet piles will be installed last when water depths are less than two feet. Cofferdam installation will occur over approximately five days. If seepage through the ground occurs, dewatering will be accomplished by pumping the water to a sediment settling basin or tank before being discharged back to Bay waters. Discharged water will be tested and discharged in accordance with SFRWQCB requirements. The two cofferdams will temporarily occupy a total of 0.035 acres.

New rock riprap will be added to improve the existing rock riprap stabilization structure that exists along the shoreline at the two outfall locations. Rock will be placed surrounding new outfall structures using an excavator working from upland areas. New rock will be matched with the existing size of rock riprap (average three-foot diameter) and existing slope. The total amount of substrate area that will receive new rock fill will be 0.002 acres.

Restoration of the 7.4-acre tidal wetland habitat will involve excavation of the existing ground surface to elevations suitable for the establishment of pickleweed plant (*Salicornia spp.*). Pilot channels will be excavated to encourage development of a dendritic slough channel network. To provide adequate tidal exchange, an inlet channel will be constructed by removing a portion of existing rock riprap that bounds the southern end of the restored tidal wetland habitat area and lowering the elevation. To minimize tidal scour of the inlet channel, an existing 0.5 acre area of rock riprap (splash pad) will be constructed in the inlet channel that will allow full tidal exchange, and will connect with existing rock riprap at the site. The inlet channel rock area excavation and installation activities will temporarily disturb an additional 0.031 acres of substrate bayward of rock riprap that will be lowered, and will result in additional permanent rock fill of 0.002 acres bayward of the former rock riprap stabilization structure. To minimize the spread of suspended sediment, a turbidity curtain will be deployed to encircle the tidal inlet channel project site for construction of the inlet channel. To avoid fish entrapment, the turbidity curtain will be installed at low tide and installation will begin from shore and be pushed out into Bay waters. The inlet channel construction will occur only at low tide between June 15 and November 30.

The wetland enhancement area is an existing 13.7-acre muted tidal wetland that will remain separated from the 7.4-acre restored tidal wetland area by a levee. The wetland enhancement area is not directly connected to Bay waters, and only receives tidal water through seepage in the existing riprap stabilization structure during higher tide levels. This 13.7-acre site will be enhanced by non-native plant removal by manual, mechanical, and chemical methods (described below) followed by native planting.

A combination of mechanized, hand, and herbicide methods will be used to optimize control non-native invasive vegetation at the restored tidal wetland and muted tidal wetland enhancement area, depending upon the invasive plant species type and location within the site. Mechanical removal on site is the preferred method, and will be limited to the use of line trimmers and hand tools. Herbicide use is expected to decrease substantially over time, with a low level applied as needed. The herbicide Roundup Custom for Iceplant contains glyphosate, and will be applied in upland and aquatic sites on emerged weeds in fresh or brackish water. Roundup products will be applied with a surfactant (Magnify). Polaris for Invasive Sea Lavender contains Imazapyr, and will be applied in upland and aquatic areas. Polaris is rainfast in one hour, and application will occur at least two hours before high tide with a surfactant/modified vegetable oil (Competitor). A dye will be used to track herbicide use and minimize overspray. The specific dye has not yet been selected, and one of the following dyes that have been previously reviewed by NMFS for use in and near aquatic habitat will be selected for use: Dynamark U.V. Red, Dynamark U.V. Blue, Aquamark Blue, and Hi-Light Blue.

All herbicides shall be applied in accordance with regulations set by the California Department of Pesticide Regulation and according to labeled instruction. Aquatic formulations will not be applied to standing water, and application will be made in such a way as minimize overspray and wind-drift into water (low pressure drift resistant spray nozzles, anti-drift agents, spray shields, and any other means necessary). Herbicide treatments in the restored tidal wetland shall be timed to coincide with the ebb tide and, to the extent feasible, shall be conducted during tidal cycles that maximize the area that will not be inundated within 24 hours of herbicide application. More

details on herbicide application are included in the Project document, 'Noxious Weed Control Plan for Wetland Restoration and Enhancement Project at VA Alameda Point.'

Conservation Measures
The measures described below will be implemented during Project activities to avoid and minimize environmental effects:

1. During construction, the Project will treat all of the site stormwater runoff in accordance with the State Water Resources Control Board (SWRCB) Construction General Permit, Order No. 2009-0009-DWQ.

    a. To minimize discharge of water with high suspended sediment levels during construction, if water from dewatering activities cannot be contained on site, it would be pumped into suitable detention facilities or Baker tanks or equivalent with sufficient capacity to control the volume of water. Sediment will be allowed to settle out, and remaining water will be tested and discharged in accordance with SFRWQCB requirements.

    b. To minimize debris and sediment from entering Bay waters during construction, spoil sites and other debris areas will be located so they do not drain directly into any body of water. Spoil sites will be graded to reduce the potential for erosion.

    c. To minimize loose sediment from entering Bay waters during construction, sediment control measures will be implemented in all upland areas where construction occurs within 100 feet of water, including silt fencing, erosion control blankets, check dams, erosion control seeding, or alternate methods where appropriate.

    d. Prior to the completion of construction, permanent erosion control will be applied to remaining disturbed soil areas. Additional erosion control best management practices (BMPs) are included in the Project's draft SWPPP.

    e. A spill prevention and control plan will be implemented during construction to minimize chemical spills into Bay waters during construction. Measures will include equipment refueling and maintenance to occur outside of 200 feet from the Bay or Harbor. Spills will be reported to NMFS within 48 hours.

    f. Monitoring during construction will be implemented to ensure that erosion and sediment controls are limiting discharge and the site is in compliance with the Construction General Permit. Site inspections will occur before and after rain events. Water quality samples will be collected in association with a significant rain event. More information is included in the Project's draft SWPPP.

Operations and maintenance
To ensure optimal function of the stormwater management system post-construction, inspections and maintenance will be performed on a regular basis to remove sediment from bioswales, catch

basins, and outfalls to maintain the hydraulic capacity of the stormwater conveyances and treatment features. For the purposes of stormwater management maintenance and function, it is anticipated that non-chemical controls (*i.e.*, biological, physical, and cultural controls) will be implemented to address any pest problems.

Topography and vegetation monitoring will occur annually post-construction to map and measure habitat conditions in the restored tidal wetland and the tidal wetland enhancement area. More information on habitat monitoring is included in the Project document, 'Alameda Point Veterans Affairs Project Final Wetland Mitigation and Monitoring Plan'.

We considered, under the ESA whether or not the proposed action would cause any other activities and determined that it would not.

Action Area

The action area is located on the eastern shore of South San Francisco Bay (Bay), and generally bound by the Oakland Inner Harbor (Harbor) to the north, Bay waters to the west and south, and City of Alameda to the east. This Project's 112-acre development is a portion of the 624-acre VA-owned and managed VA Transfer Parcel, which is situated on Alameda Point, a peninsula that extends into the Bay in Alameda County, California. The action area includes the 112-acre development area, the northern shoreline of Alameda Point where two stormwater outfalls will be installed, and the southern shoreline on Alameda Point where the tidal wetland restoration and enhancement area will be located. The action area also includes all Harbor and Bay waters within 0.5 mile of the Project components where turbidity and stormwater effects may occur.

The VA Transfer Parcel was the former Alameda Naval Air Station, and the existing site is composed of several large runways, multiple taxiways, and side roads. The unpaved areas of the site are covered with ruderal vegetation and various upland seasonal wetland designated areas. The Harbor is a navigation channel between the cities of Oakland and Alameda. The Port of Oakland loads commercial cargo vessels on the northern shore of the Harbor. The shoreline and channel have been highly modified for various maritime-related industries including shipbuilding, military functions, shipping, and goods processing. Alameda Point was formerly a shallow mudflat that was filled as early as the late 1800's. Shoreline areas are dominated by industrial and transportation development including railroad beds, roads, buildings, and parking lots. Various contaminants are transported into the Bay by an assortment of sources such as urban uses, industrial outfalls, municipal wastewater outfalls, municipal stormwater, and legacy pollutants. The substrate at the shoreline is composed of sandy mud, and it is expected that typical benthic invertebrates of San Francisco Bay inhabit the substrate (*e.g.*, worms, bivalves, crustaceans).

Background and Action Agency's Effects Determination

The VA has determined that the Project may affect, but is not likely to adversely affect (NLAA) listed species and their critical habitat. This determination is based on the inclusion of conservation measures and the limited use of the habitat in the action area by listed fish species.

Available information indicates the following listed species (Distinct Population Segments [DPS]) under the jurisdiction of NMFS may be affected by the Project:

Central California Coast steelhead DPS *(Oncorhynchus mykiss)*
threatened (71 FR 834; January 5, 2006)
critical habitat (70 FR 52488; September 2, 2005);
North American green sturgeon southern DPS *(Acipenser medirostris)*
threatened (71 FR 17757; April 7, 2006)
critical habitat (74 FR 52300; October 9, 2009).

The life history of steelhead is summarized by NMFS (1996; 2016). Central California Coast (CCC) steelhead use the San Francisco Bay primarily as a migration corridor, passing through the Bay on their way to the ocean to rear as juveniles or to upstream areas to spawn as adults. Adult steelhead typically begin their upstream migrations in early December, and juvenile steelhead migrate downstream through the estuary during the late winter and spring months (Fukushima and Lesh 1998).

The life history of green sturgeon in California is summarized in NMFS (2015; 2018). The Southern DPS (sDPS) of North American green sturgeon spawn in the deep turbulent sections of the upper reaches of the Sacramento River. The sDPS green sturgeon are anadromous, making migrations as adults to the Sacramento River in the spring (Moyle *et al.* 1995). As juvenile green sturgeon age, they migrate downstream and live in the lower delta and bays of the San Francisco Estuary, spending up to four years there before entering the ocean. Within the San Francisco Estuary, information provided by Kelly *et al.* (2007) suggests depths less than 10 meters (33 feet) may be preferred during foraging and migration. Adult green sturgeon return from the ocean every few years to spawn, and generally show fidelity to their upper Sacramento River spawning sites. Adult sDPS green sturgeon enter the San Francisco Estuary in late winter through early spring (NMFS 2015) and juvenile, subadult, and adult sDPS green sturgeon may be present in the San Francisco Estuary and in the action area year-round.

Regarding EFH, the VA has determined that the proposed action may adversely affect EFH. The Project area is located within an area identified as EFH for various life stages of fish species managed under the Pacific Coast Groundfish Fishery Management Plan (FMP), the Coastal Pelagic Species FMP, and the Pacific Coast Salmon FMP. San Francisco Estuary, including the Project area, is also designated as an estuary habitat area of particular concern (HAPC) for various federally managed fish species as defined in the Pacific Salmon and Groundfish FMPs.[1]

ENDANGERED SPECIES ACT

Effects of the Action

Under the ESA, "effects of the action" are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved

[1] For more information on HAPCs designated under the Groundfish and Salmon FMPs, please see page 102 of the Groundfish FMP at http://www.pcouncil.org/wp-content/uploads/2017/03/GF_FMP_FinalThruA27-Aug2016.pdf, and page 6 of the Salmon FMP Appendix A at http://www.pcouncil.org/wp-content/uploads/Salmon_EFH_Appendix_A_FINAL_September-25.pdf.

in the action (50 CFR 402.02). In our analysis, which describes the effects of the proposed action, we considered 50 CFR 402.17(a) and (b). When evaluating whether the proposed action is not likely to adversely affect listed species or critical habitat, NMFS considers whether the effects are expected to be completely beneficial, insignificant, or discountable. Completely beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Effects are considered discountable if they are extremely unlikely to occur.

Effects to Species

During construction, the effects of the Project to the above-listed fish are reasonably likely to include elevated underwater sound levels, degraded water quality, and risk of fish entrapment. Upon completion of construction, the effects of the Project include changes to water quality from the improved stormwater management system. Juvenile and adult CCC steelhead migrate seasonally through South San Francisco Bay, and the Project's in-water work window (June 15 to November 30) for construction activities avoids the majority of this migration period. CCC steelhead are very unlikely to be present in the action area due to the Project's location and timing of in-water work. Thus, NMFS anticipates CCC steelhead will not be present in the action area during in-water construction activities. As presented below, impacts associated with in-water construction activities for this Project will be temporary and are expected to fully dissipate when construction activities cease; therefore, any effects to CCC steelhead during in-water construction activities are anticipated to be discountable.

For sDPS green sturgeon during construction, elevated underwater sound levels may co-occur with their presence in the action area during installation and removal of temporary sheet piles for cofferdam construction (June 15 to November 30). Vibratory or hydraulic methods will be used to drive the steel sheet piles. Based on results of hydroacoustic monitoring at various pile driving projects (Caltrans 2020), vibratory and hydraulic methods generate sound levels and sound wave forms that are not expected to cause physical injury or mortality of listed fish. Additionally, the small number of sheet piles (up to 50 sheet piles), installation during dry or shallow water conditions, and short duration of installation (approximately five days), reduces the risk of sturgeon exposure to elevated sound levels. If green sturgeon are present in the action area during the sheet pile installation or removal, elevated levels of underwater sound may startle green sturgeon and result in temporary dispersion from the action area. If green sturgeon were to react behaviorally to the sound produced by construction activities, adequate water depths and area within the adjacent open waters of the Harbor and Bay are expected to provide fish sufficient area to disperse for the duration of sheet pile driving and removal. Therefore, it is anticipated that the effects to sDPS green sturgeon from elevated underwater sound levels produced during construction activities will be insignificant.

Degraded water quality resulting from elevated levels of suspended sediment and potential contaminants (hereafter turbidity) may co-occur with the presence of sDPS green sturgeon due to turbidity during cofferdam installation and removal, dewatering within the cofferdam, silt curtain installation and removal, and temporary stormwater runoff during construction. If turbidity remains high for an extended period of time, the primary productivity of an aquatic area may be reduced (Cloern 1987) and fish may suffer reduced feeding ability and be prone to fish gill injury

(Benfield and Minello 1996; Nightingale and Simenstad 2001). However, temporary stormwater runoff during construction period is expected to be minimized due to the Project's proposed erosion and sediment control measures. Cofferdam and silt curtain installation and removal will occur during low tide, minimizing turbidity. The water pumped into the Harbor during cofferdam dewatering is expected to be only water seeping into the cofferdam, and will be pumped through a settling basin before discharge. The removal of the cofferdam and silt curtain will occur after turbidity within the enclosures is allowed to settle, and only small amounts of sediment are expected to suspend. The VA will discharge water into the Harbor pursuant to the National Pollutant Discharge Elimination System Construction General Permit (SWRCB Order No. 2009-0009-DWQ), and will operate under an approved SWPPP that must sufficiently control, treat, or dilute runoff to meet the standards of the San Francisco Bay Basin Water Quality Control Plan (Basin Plan; SFRWQCB 2015). The Project is designed to comply with these standards, which are expected to limit construction site discharge to levels that are protective of all beneficial uses in the Bay, including listed fish. Based on the above, it is expected that the effects to sDPS green sturgeon from degraded water quality during construction activities will be insignificant.

For sDPS green sturgeon during construction, in the absence of improper silt curtain configuration and deployment and temporary sheet pile cofferdam installation, there would be a risk of inclusion of green sturgeon within the enclosures, exposing fish to elevated levels of turbidity during construction activities. However, this potential effect will be avoided because the silt curtain will be deployed by hand at low tide and installation will start from shore, and be pushed out into Bay waters beginning from the bank and walking it slowly out where depths will be shallow. The silt curtain will have floats on top and weight on bottom that will span the entire water column, preventing fish from entering the work area during several weeks of deployment. The curtain material will be made from a sturdy fine mesh cloth that will prevent green sturgeon from being caught or trapped by gill or fin. The cofferdam will be installed at low tide and closed when depths are shallower than two feet. Bayward sheet piles will be installed last when water depths are less than two feet to allow fish to volitionally leave the partially constructed cofferdam. These avoidance measures will prevent inclusion of green sturgeon in the silt curtain and sheet pile cofferdam during Project activities.

The Project proposes to apply herbicides to control non-native vegetation, potentially exposing CCC steelhead and sDPS green sturgeon to toxins that may be harmful. However, the Project's application during low ebbing tides and reduced wind speeds are expected to minimize exposure to fish and the aquatic environment. Herbicides will be applied directly to target plants, and a dye will be used to aid in detecting and preventing drift from the targeted area. The application techniques are expected to give the applicator sufficient control and precision over the spray to prevent overspray, exposure of non-targeted areas, and will reduce the risk of herbicide discharge into tidal waters. If herbicide applications do reach a waterway, they are expected to dissipate or breakdown, depending on multiple abiotic factors. Glyphosate is highly soluble in water. Studies conducted in a forest ecosystem (Feng *et al.* 1990; Goldsborough *et al.* 1993; Newton *et al.* 1994) found that glyphosate dissipated from streams within 3-14 days. Imazapyr is soluble in water and degrades quickly in the presence of sunlight; therefore, water contamination is generally not a concern (WSDA 2003). One study completed in the state of Washington found that imazapyr was undetectable in the initial tidal exchange following direct application to estuarine sediments (WSDA 2003). Glyphosate and imazapyr are considered relatively non-toxic

to fish and do not bioaccumulate in the tissues of aquatic organisms (Gardener and Grue 1996; Giesy *et al.* 2000). The adjuvants (Magnify, Competitor) to be used have low toxicity (WSDA 2017). Available dyes (one of the following: Dynamark U.V. Red, Dynamark U.V. Blue, Aquamark Blue, and Hi-Light Blue) will be used in small amounts, and are agriculturally registered food-grade colorants that are highly unlikely to cause toxicity. For these reasons, the potential effects of herbicide application are expected to be insignificant to sDPS green sturgeon and CCC steelhead.

Upon completion of the Project, degraded water quality resulting from ongoing stormwater runoff may co-occur with CCC steelhead and sDPS green sturgeon. If not adequately addressed through management and treatment, long-term stormwater effects to listed species may include the following exposure in the receiving waterbody: flow volume changes; elevated water temperatures; regular contribution of fine sediment; and regular contribution of toxic pollutants. However, the expected volume of stormwater runoff from the 112-acre area is expected to decrease because permeable surfaces will increase as a result of Project activities, and runoff will be directed to approximately 70 new bioswale areas. The action area is not expected to receive significant off-site run-on due to the location and relatively flat grade of the area surrounding the action area. The Project's new stormwater management system is designed to divert and treat up to a two-year storm event. Regarding flows that exceed a two-year storm event, the VA will discharge stormwater pursuant to the SFRWQCB 401 Water Quality Certification for this Project, and will operate under a SWPPP and Stormwater Treatment System Operations and Maintenance Manual approved by the SFRWQCB that must sufficiently control, treat, or dilute runoff to meet the standards of the Basin Plan (SFRWQCB 2015). The Project is designed to comply with these standards, and is expected to improve the stormwater quality runoff compared to existing conditions.

Effects to Critical Habitat

The action area is located within designated critical habitat for CCC steelhead and sDPS green sturgeon. The physical and biological features (PBFs)[2] of designated critical habitat for CCC steelhead include estuarine areas free of obstruction with water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater; natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels; and juvenile and adult forage, including aquatic invertebrates and fishes, supporting growth and maturation. The PBFs of designated critical habitat for green sturgeon in estuarine areas include food resources, water flow, water quality, migratory corridor, water depth, and sediment quality.

During construction, effects to CCC steelhead and sDPS green sturgeon designated critical habitat will include elevated underwater sound levels, degraded water quality, and benthic (bottom) habitat disturbance. Post-construction effects will include changes to stormwater discharges, degraded water quality, altered benthic habitat, and tidal wetland habitat restoration.

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[2] The designation(s) of critical habitat for these species used the term primary constituent element (PCE) or essential features. The new critical habitat regulations (81 FR 7414) replace these terms with physical or biological features (PBFs). This shift in terminology does not change the approach used in conducting our analysis, whether the original designation identified PCEs, PBFs, or essential features. We use the term PBF from this point forward in this letter to mean PCE or essential feature, as appropriate for the specific critical habitat.

The Project's potential effects associated with elevated underwater sound levels, degraded water quality, and changes to stormwater flows on critical habitat are expected to be insignificant for the reasons presented above.

During construction, temporary disturbance will occur over 0.066 acres of intertidal benthic habitat for installation of two new stormwater outfalls (0.035 acres), and construction of the inlet channel to the tidal wetland restoration area (0.031 acres). Post-construction, permanent alteration of 0.004 acres of intertidal benthic habitat will occur from installation of the two new outfalls with rock riprap (0.002 acres), and the tidal wetland restoration rock splash pad (0.002 acres). These Project activities will exclude fish during cofferdam and turbidity curtain deployment, and benthic disturbance and permanent alteration could potentially reduce foraging area for CCC steelhead and sDPS green sturgeon that prey on benthic invertebrates inhabiting the substrate of the action area (*e.g.*, crustaceans, clams). However, disturbed and permanently altered areas during Project activities along the Harbor and Bay shorelines will impact only a small area of severely degraded habitat. The existing shorelines are highly modified and degraded from decades of industrial harbor and military airport use. These highly modified shorelines are unlikely to provide quality habitats for foraging and rearing by any life stage of steelhead and green sturgeon, and the Project is not expected to further degrade conditions. Substrate disturbed during construction is expected to return to pre-project conditions within a few weeks due to recolonization of benthic invertebrates from adjacent areas. For these reasons, the benthic habitat disturbance and alteration that will result from Project activities during construction is expected to be insignificant to CCC steelhead and sDPS green sturgeon designated critical habitat.

The restored tidal wetland habitat will be created by removing the rock riprap shoreline stabilization structure and excavating the existing upland area down to elevations suitable for the establishment of a pickleweed (*Salicornia spp.)* dominated tidal marsh. Pilot tidal channels will be excavated, and full tidal exchange will be restored to 7.4 acres that is expected to provide benefits to CCC steelhead and sDPS green sturgeon critical habitat in the action area. It is expected that within several months after tidal connectivity is restored, marsh vegetation and benthic invertebrates will begin recruiting to the newly excavated area. Juvenile steelhead, green sturgeon, and other estuarine fish will have access to the restored area during high tide and may benefit from increased opportunities for foraging and refuge. As the tide recedes, fish will be able to retreat to subtidal areas in adjacent shoreline areas (Levy and Northcote 1982; Hering *et al.* 2010). Detrital input from tidal wetland habitat supports invertebrate productivity within the wetland and on adjacent mudflats (Warwick and Price 1975). The productivity of crustaceans, polychaete worms, gastropod and bivalve mollusks, and other potential steelhead and green sturgeon invertebrate prey (Harvey *et al.* 1977) is expected to increase as a result of restoration. Based on the above, the restoration of 7.4 acres of tidal wetland habitat is expected to provide benefits to CCC steelhead and sDPS green sturgeon designated critical habitat.

Conclusion

Based on this analysis, NMFS concurs with the VA that the proposed action is not likely to adversely affect the subject listed species and designated critical habitats.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by the VA or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) the proposed action causes take; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the written concurrence; or (4) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA consultation.

MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

Section 305(b) of the MSA directs Federal agencies to consult with NMFS on all actions or proposed actions that may adversely affect EFH. Under the MSA, this consultation is intended to promote the conservation of EFH as necessary to support sustainable fisheries and the managed species' contribution to a healthy ecosystem. For the purposes of the MSA, EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity", and includes the associated physical, chemical, and biological properties that are used by fish (50 CFR 600.10). Adverse effect means any impact that reduces quality or quantity of EFH, and may include direct or indirect physical, chemical, or biological alteration of the waters or substrate and loss of (or injury to) benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects may result from actions occurring within EFH or outside of it and may include direct, indirect, site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) of the MSA also requires NMFS to recommend measures that can be taken by the action agency to conserve EFH. Such recommendations may include measures to avoid, minimize, mitigate, or otherwise offset the adverse effects of the action on EFH (50 CFR 600.905(b)).

Based on information provided by the VA and HDR, Inc., proposed construction activities are expected to result in elevated underwater sound levels, degraded water quality, and disturbance to benthic habitat. Post-construction effects may include degraded water quality, a change in stormwater flows, alteration to benthic habitat, and tidal wetland restoration. Therefore, NMFS has determined the proposed action would adversely affect EFH for various life stages of fish species managed under the Pacific Coast Groundfish FMP and the Coastal Pelagic Species FMP. However, as presented above, short-term effects during construction resulting from elevated underwater sound levels, degraded water quality, and disturbance to benthic substrate are expected to be minimal and localized.

Upon completion of the Project, herbicides will be used to control non-native terrestrial and aquatic vegetation, however effects are expected to be minimal and localized due to the herbicides selected and implementation of conservation measures. Stormwater discharges from upland areas are expected to decrease in quantity and improve in quality due to the overall increase in pervious surfaces and installation of bioswales. Installed rock riprap and outfall structures along the shoreline of Alameda Point will not further degrade the forage and refuge habitat functions of benthic habitat in the Project area. In addition, the tidal wetland habitat

restoration area is expected to provide forage and refuge benefits to federally managed fish under the Groundfish and Coastal Pelagic Species FMPs. Therefore, NMFS has no EFH conservation recommendations to provide.

The VA must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR 600. 920(l)). This concludes the MSA consultation.

Please direct questions regarding this letter to Brian Meux, North-Central Coast Office in Santa Rosa, California at (707) 575-1253, or via email at brian.meux@noaa.gov.

Sincerely,

Gary Stern
San Francisco Bay Branch Chief
North Central Coastal Office

cc: Warren Yip, VA West Region CFM, warren.yip@va.gov
Christine Modovsky, VA West Region CFM, christine.modovsky@va.gov
Elizabeth Exter, U.S. Army Corps of Engineers, elizabeth.exter@usace.army.mil
Copy to ARN File #151422WCR2020SR00104

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
San Francisco Bay-Delta Fish And Wildlife
650 Capitol Mall
Suite 8-300
Sacramento, CA 95814
Phone: (916) 930-5603 Fax: (916) 930-5654
http://kim_squires@fws.gov

In Reply Refer To:
Consultation Code: 08FBDT00-2019-SLI-0225
Event Code: 08FBDT00-2019-E-00514
Project Name: Alameda VA

June 21, 2019

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

To Whom It May Concern:

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

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

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

San Francisco Bay-Delta Fish And Wildlife
650 Capitol Mall
Suite 8-300
Sacramento, CA 95814
(916) 930-5603

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08FBDT00-2019-SLI-0225

Event Code: 08FBDT00-2019-E-00514

Project Name: Alameda VA

Project Type: ** OTHER **

Project Description: Alameda VA

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.786876543263666N122.32053074033223W

Counties: Alameda, CA | San Francisco, CA

Endangered Species Act Species

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

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

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

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

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse *Reithrodontomys raviventris* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail *Rallus longirostris obsoletus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) *Masticophis lateralis euryxanthus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5524	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
San Bruno Elfin Butterfly *Callophrys mossii bayensis* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3394	Endangered

Flowering Plants

NAME	STATUS
California Seablite *Suaeda californica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6310	Endangered

Critical habitats

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

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

IPaC resource list

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

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

NOT FOR CONSULTATION

Location

Alameda and San Francisco counties, California

Local offices

Sacramento Fish And Wildlife Office

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

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

San Francisco Bay-Delta Fish And Wildlife

(916) 930-5603
(916) 930-5654

650 Capitol Mall
Suite 8-300
Sacramento, CA 95814

http://kim_squires@fws.gov

NOT FOR CONSULTATION

Endangered species

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

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

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

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

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

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

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

NOT FOR CONSULTATION

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.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

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

Mammals

NAME	STATUS

Salt Marsh Harvest Mouse Reithrodontomys raviventris — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/613

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5524	Threatened
Green Sea Turtle Chelonia mydas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6199	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS

NOT FOR CONSULTATION

Delta Smelt Hypomesus transpacificus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
San Bruno Elfin Butterfly Callophrys mossii bayensis There is **proposed** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3394	Endangered

Flowering Plants

NAME	STATUS
California Seablite Suaeda californica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered

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.

NOT FOR CONSULTATION

Migratory birds

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

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

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

Additional information can be found using the following links:

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

- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

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

NOT FOR CONSULTATION

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Black Oystercatcher Haematopus bachmani This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9591	Breeds Apr 15 to Oct 31

Black Scoter Melanitta nigra — Breeds elsewhere
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.

Black Skimmer Rynchops niger — Breeds May 20 to Sep 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Black Storm-petrel Oceanodroma melania — Breeds May 15 to Nov 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Black Turnstone Arenaria melanocephala — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Black-footed Albatross Phoebastria nigripes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8033

Bonaparte's Gull Chroicocephalus philadelphia — Breeds elsewhere
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.

Brown Pelican Pelecanus occidentalis — Breeds Jan 15 to Sep 30
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/6034

Burrowing Owl Athene cunicularia — Breeds Mar 15 to Aug 31
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/9737

Clark's Grebe Aechmophorus clarkii — Breeds Jan 1 to Dec 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

NOT FOR CONSULTATION

Common Loon gavia immer — Breeds Apr 15 to Oct 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/4464

Common Murre Uria aalge — Breeds Apr 15 to Aug 15

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.

Common Tern Sterna hirundo — Breeds May 10 to Sep 10

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/4963

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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/2084

Double-crested Cormorant phalacrocorax auritus — Breeds Apr 20 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/3478

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Herring Gull Larus argentatus — Breeds Apr 20 to Aug 31

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

NOT FOR CONSULTATION

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Least Tern Sterna antillarum — Breeds Apr 20 to Sep 10
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.

Lewis's Woodpecker Melanerpes lewis — Breeds Apr 20 to Sep 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9408

Long-billed Curlew Numenius americanus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5511

Long-tailed Duck Clangula hyemalis — Breeds elsewhere
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/7238

Marbled Godwit Limosa fedoa — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Northern Fulmar Fulmarus glacialis — Breeds elsewhere
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.

Northern Gannet Morus bassanus — Breeds elsewhere
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.

NOT FOR CONSULTATION

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20

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/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Parasitic Jaeger Stercorarius parasiticus — Breeds elsewhere

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.

Pink-footed Shearwater Puffinus creatopus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-breasted Merganser Mergus serrator — Breeds elsewhere

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.

Red-necked Phalarope Phalaropus lobatus — Breeds elsewhere

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.

Red-throated Loon Gavia stellata — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Ring-billed Gull Larus delawarensis — Breeds elsewhere

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.

Rufous Hummingbird selasphorus rufus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

NOT FOR CONSULTATION

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Song Sparrow Melospiza melodia — Breeds Feb 20 to Sep 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee Pipilo maculatus clementae — Breeds Apr 15 to Jul 20
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/4243

Surf Scoter Melanitta perspicillata — Breeds elsewhere
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.

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Whimbrel Numenius phaeopus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9483

White-winged Scoter Melanitta fusca — Breeds elsewhere
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.

Willet Tringa semipalmata — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

NOT FOR CONSULTATION

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

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

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

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

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.

NOT FOR CONSULTATION

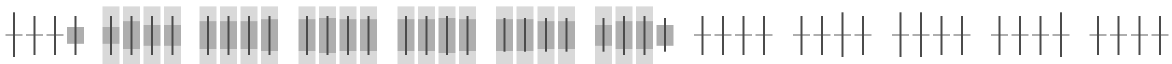
Survey Timeframe

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

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

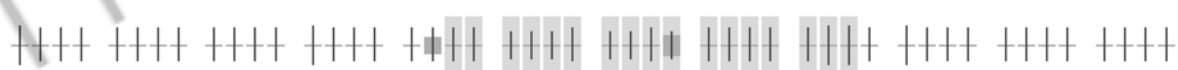
Allen's Hummingbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



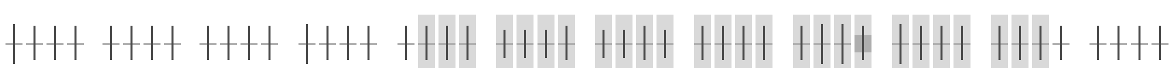
Black Oystercatcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Black Scoter
Non-BCC Vulnerable (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.)

Black Skimmer
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Black Storm-petrel
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Black Turnstone
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

NOT FOR CONSULTATION

Black-footed Albatross
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

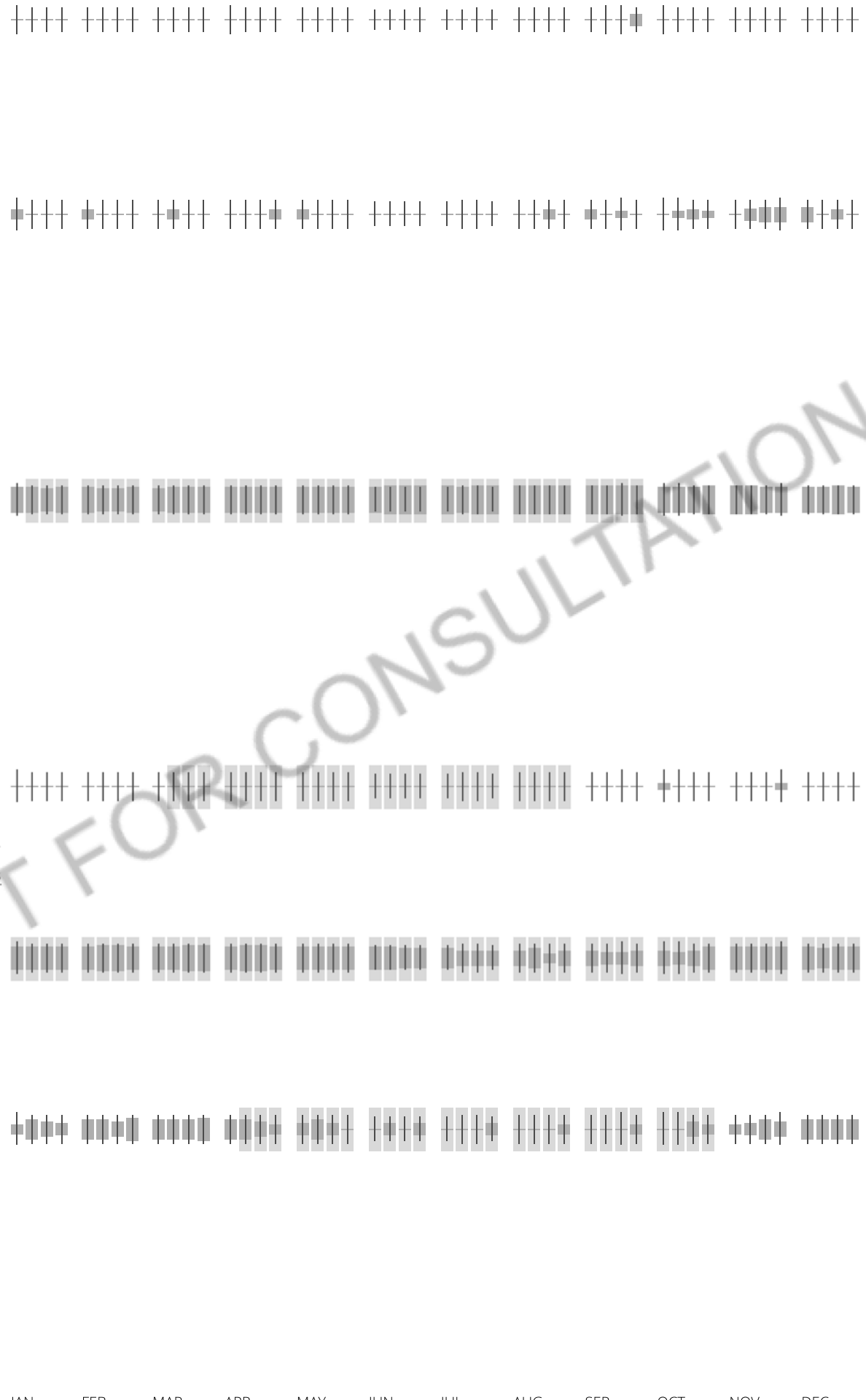
Bonaparte's Gull
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Brown Pelican
Non-BCC Vulnerable (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.)

Burrowing Owl
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Clark's Grebe
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Common Loon
Non-BCC Vulnerable (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.)



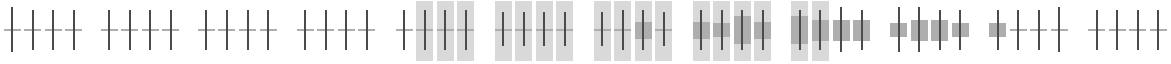
NOT FOR CONSULTATION

For detailed information in regard to this appendix item, please contact glenn.elliott@wsp.com

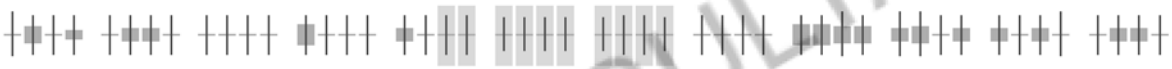
Appendix C to May 2021 Final SEA

Common Murre
Non-BCC Vulnerable (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.)

Common Tern
Non-BCC Vulnerable (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.)



Common Yellowthroat
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

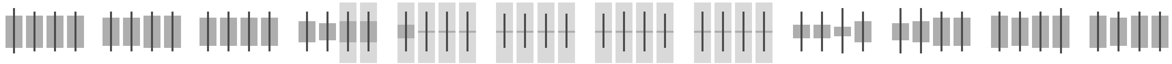


Double-crested Cormorant
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

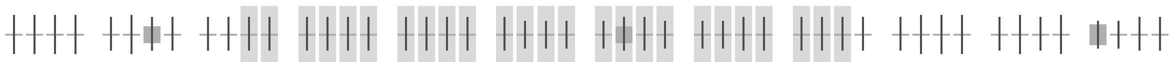
Golden Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

NOT FOR CONSULTATION

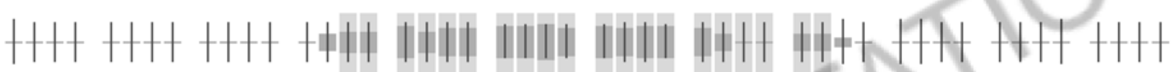
Herring Gull
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



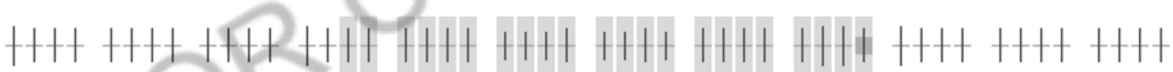
Lawrence's Goldfinch
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Least Tern
Non-BCC Vulnerable (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.)



Lewis's Woodpecker
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Long-billed Curlew
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Long-tailed Duck
Non-BCC Vulnerable (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.)

NOT FOR CONSULTATION

Marbled Godwit
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Northern Fulmar
Non-BCC Vulnerable (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.)

Northern Gannet
Non-BCC Vulnerable (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.)

Nuttall's Woodpecker
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Oak Titmouse
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Parasitic Jaeger
Non-BCC Vulnerable (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.)

NOT FOR CONSULTATION

For detailed information in regard to this appendix item, please contact glenn.elliott@vassar

Pink-footed Shearwater
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Red-breasted Merganser
Non-BCC Vulnerable (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.)

Red-necked Phalarope
Non-BCC Vulnerable (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.)

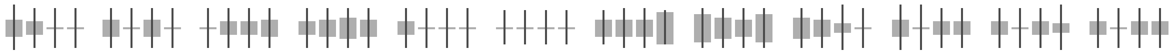
Red-throated Loon
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Ring-billed Gull
Non-BCC Vulnerable (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.)

NOT FOR CONSULTATION

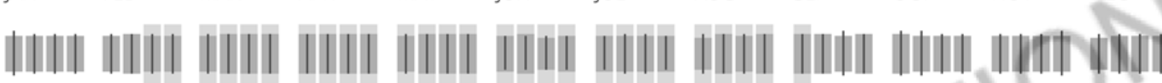
Rufous Hummingbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Short-billed Dowitcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

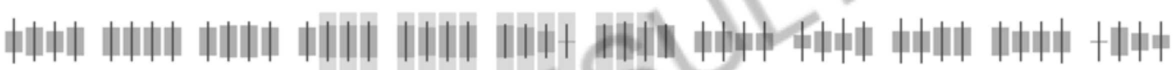


SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Song Sparrow
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

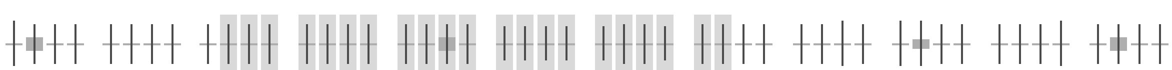


Spotted Towhee
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

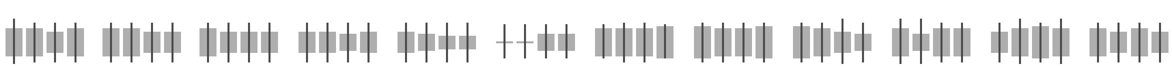


Surf Scoter
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Tricolored Blackbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Whimbrel
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



NOT FOR CONSULTATION

White-winged Scoter
Non-BCC Vulnerable (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.)

Willet
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wrentit
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Yellow-billed Magpie
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

NOT FOR CONSULTATION

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

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/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 migratory birds potentially occurring in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

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

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

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

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

NOT FOR CONSULTATION

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

NOT FOR CONSULTATION

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

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

This location overlaps the following wetlands:

ESTUARINE AND MARINE DEEPWATER

E1UBL

FRESHWATER EMERGENT WETLAND

PEM1Ch

FRESHWATER POND

PABHh
PUBHh
PUSCh

A full description for each wetland code can be found at the National Wetlands Inventory website

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 tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

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

NOT FOR CONSULTATION

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846

In Reply Refer to:
08ESMF00-
2009-F-0952-6

DEC 10 2019

Gus Ballis
Environmental Program Manager
Northern California Region
Department of Veterans Affairs
VA Northern California Heath Care System
10535 Hospital Way
Mather, California 95655

Subject: Proposed Changes to Naval Air Station Alameda Disposal and Reuse Project (Service file no. 81420-2009-F-0952-4)

Dear Mr. Ballis:

This letter is in response to your August 5, 2019, letter to the U.S. Fish and Wildlife Service (Service) regarding changes to the U.S. Department of Veteran's Affairs (VA) Alameda Outpatient Clinic and National Cemetary Complex Project proposed for construction at the decommissioned Naval Air Station Alameda. At issue are effects to the federally endangered California least tern (*Sternula antillarum*) and the federally threatened western snowy plover (*Charadrius nivosus nivosus*). Your letter was received in our office on August 13, 2019.

The Service's August 29, 2012, biological opinion covered the effects of the construction and operations of a VA outpatient clinic and national cemetery complex, along with the City of Alameda's redevelopment project at the former Naval Air Station Alameda. The VA is proposing three changes to the project description: 1) improvements to the existing stormwater management system; 2) the construction/restoration of a tidal marsh mitigation area; and 3) the installation of a temporary modular outpatient clinic.

The stormwaer management system improvements would be built to convey stromwater from the new VA facilities to the Bay. All work would be done approximately 2,100 feet from the California least tern colony and no adverse effects are anticipated to the birds from this activity, due to the distance from the colony.

The onsite mitigation area would consist of at least 8 acres of created tidal marsh habitat, a 13.7 acre tidal marsh enhancement area, and a 0.5 acre splash pad/maintenance road. All construction activities for this action will occur outside of the tern nesting period when the birds are not in Alameda, so no adverse effects will result from this activity.

The temporary modular complex will be constructed to allow medical outpatient services to be made available onsite prior to completion of the permanent facilities. The proposed complex would

include approximately 10,800 square feet of modular buildings and would be sited just south of the proposed north road that would be constructed within the footprint of disturbance previously evaluated in the 2012 Biological Opinion. The complex would consist of three modular trailers measuring 3,600 square feet each. The total height of the modular trailers would be at or below 20 feet. The complex would be installed in 2021 and is anticipated to be removed by 2026, within 3 months of opening the permanent facilities. The temporary modular complex has been sited outside the California least tern buffer which was described in the biological opinion; as a result, no additional adverse effects to California least terns would occur as a result of this project change.

Therefore, in summary, the proposed project changes will not result in any additional effects beyond those described in the August 2012 biological opinion and the conclusions for that biological opinion stand: the project is not likely to adversely affect the Western snowy plover and the project is not likely to jeopardize the California least tern.

Unless new information reveals effects of the project that may affect federally listed species or critical habitat in a manner not identified to date, or if a new species is listed or critical habitat is designated that may be affected by the proposed action, no further action pursuant to the Act is necessary for the proposed changes to Naval Air Station Alameda Disposal and Reuse Project.

If you have any questions regarding this letter, please contact Ryan Olah, Coast Bay Division Chief (ryan_olah@fws.gov) at the letterhead address or telephone (916) 414-6623.

Sincerely,

Ryan Olah
Division Chief, Coast Bay

CNDDB 9-Quad Species List 618 records.

Element Type	Scientific Name	Common Name	Element Code	Federal Status	State Status	CDFW Status	CA Rare Plant Rank	Quad Code	Quad Name	Data Status	Taxonomic Sort
Animals - Amphibians	Ambystoma californiense	California tiger salamander	AAAAA01180	Threatened	Threatened	WL	-	3712262	San Leandro	Mapped	Animals - Amphibians - Ambystomatidae - Ambystoma californiense
Animals - Amphibians	Ambystoma californiense	California tiger salamander	AAAAA01180	Threatened	Threatened	WL	-	3712272	Oakland East	Mapped	Animals - Amphibians - Ambystomatidae - Ambystoma californiense
Animals - Amphibians	Ambystoma californiense	California tiger salamander	AAAAA01180	Threatened	Threatened	WL	-	3712273	Oakland West	Mapped	Animals - Amphibians - Ambystomatidae - Ambystoma californiense
Animals - Amphibians	Dicamptodon ensatus	California giant salamander	AAAAH01020	None	None	SSC	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Amphibians - Dicamptodontidae - Dicamptodon ensatus
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	SSC	-	3712282	Briones Valley	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	SSC	-	3712272	Oakland East	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3712283	Richmond	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3712284	San Quentin	Mapped	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Arachnids	Banksula incredula	incredible harvestman	ILARA14100	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Arachnids - Phalangodidae - Banksula incredula
Animals - Arachnids	Microcina leei	Lee's micro-blind harvestman	ILARA47040	None	None	-	-	3712272	Oakland East	Mapped	Animals - Arachnids - Phalangodidae - Microcina leei
Animals - Arachnids	Microcina leei	Lee's micro-blind harvestman	ILARA47040	None	None	-	-	3712283	Richmond	Mapped	Animals - Arachnids - Phalangodidae - Microcina leei

Animals - Arachnids	Microcina tiburona	Tiburon micro-blind harvestman	ILARA47060	None	None	-	-	3712284	San Quentin	Mapped	Animals - Arachnids - Phalangodidae - Microcina tiburona
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	3712284	San Quentin	Mapped	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	3712283	Richmond	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	3712273	Oakland West	Mapped	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	3712264	San Francisco South	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	3712262	San Leandro	Mapped	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter gentilis	northern goshawk	ABNKC12060	None	None	SSC	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Accipitridae - Accipiter gentilis
Animals - Birds	Accipiter striatus	sharp-shinned hawk	ABNKC12020	None	None	WL	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Accipitridae - Accipiter striatus
Animals - Birds	Accipiter striatus	sharp-shinned hawk	ABNKC12020	None	None	WL	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Accipitridae - Accipiter striatus
Animals - Birds	Accipiter striatus	sharp-shinned hawk	ABNKC12020	None	None	WL	-	3712272	Oakland East	Unprocessed	Animals - Birds - Accipitridae - Accipiter striatus
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP , WL	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP , WL	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP , WL	-	3712283	Richmond	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Buteo regalis	ferruginous hawk	ABNKC19120	None	None	WL	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Accipitridae - Buteo regalis
Animals - Birds	Buteo regalis	ferruginous hawk	ABNKC19120	None	None	WL	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Accipitridae - Buteo regalis
Animals - Birds	Buteo regalis	ferruginous hawk	ABNKC19120	None	None	WL	-	3712272	Oakland East	Unprocessed	Animals - Birds - Accipitridae - Buteo regalis
Animals - Birds	Buteo swainsoni	Swainson's hawk	ABNKC19070	None	Threatened	-	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Accipitridae - Buteo swainsoni
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3712283	Richmond	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3712284	San Quentin	Mapped	Animals - Birds - Accipitridae - Circus hudsonius

Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3712272	Oakland East	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3712262	San Leandro	Mapped	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3712262	San Leandro	Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3712272	Oakland East	Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3712284	San Quentin	Mapped	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3712283	Richmond	Mapped and Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3712283	Richmond	Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Eremophila alpestris actia	California horned lark	ABPAT02011	None	None	WL	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Alaudidae - Eremophila alpestris actia
Animals - Birds	Eremophila alpestris actia	California horned lark	ABPAT02011	None	None	WL	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Alaudidae - Eremophila alpestris actia
Animals - Birds	Eremophila alpestris actia	California horned lark	ABPAT02011	None	None	WL	-	3712264	San Francisco South	Unprocessed	Animals - Birds - Alaudidae - Eremophila alpestris actia
Animals - Birds	Anser albifrons elgasi	tule greater white-fronted goose	ABNJB03043	None	None	SSC	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Anatidae - Anser albifrons elgasi
Animals - Birds	Branta hutchinsii leucopareia	cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	WL	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Birds - Anatidae - Branta hutchinsii leucopareia
Animals - Birds	Chaetura vauxi	Vaux's swift	ABNUA03020	None	None	SSC	-	3712284	San Quentin	Unprocessed	Animals - Birds - Apodidae - Chaetura vauxi
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3712262	San Leandro	Unprocessed	Animals - Birds - Ardeidae - Ardea alba

Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3712273	Oakland West	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3712273	Oakland West	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3712264	San Francisco South	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3712283	Richmond	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Botaurus lentiginosus	American bittern	ABNGA01020	None	None	-	-	3712273	Oakland West	Unprocessed	Animals - Birds - Ardeidae - Botaurus lentiginosus
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3712273	Oakland West	Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3712262	San Leandro	Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3712283	Richmond	Mapped and Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	3712283	Richmond	Mapped and Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	3712262	San Leandro	Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax

Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	3712264	San Francisco South	Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	3712273	Oakland West	Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Charadrius alexandrinus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Birds - Charadriidae - Charadrius alexandrinus nivosus
Animals - Birds	Charadrius alexandrinus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	3712272	Oakland East	Unprocessed	Animals - Birds - Charadriidae - Charadrius alexandrinus nivosus
Animals - Birds	Charadrius alexandrinus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	3712263	Hunters Point	Mapped	Animals - Birds - Charadriidae - Charadrius alexandrinus nivosus
Animals - Birds	Charadrius alexandrinus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius alexandrinus nivosus
Animals - Birds	Charadrius alexandrinus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	3712283	Richmond	Unprocessed	Animals - Birds - Charadriidae - Charadrius alexandrinus nivosus
Animals - Birds	Pica nuttalli	yellow-billed magpie	ABPAV09020	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Birds - Corvidae - Pica nuttalli
Animals - Birds	Pica nuttalli	yellow-billed magpie	ABPAV09020	None	None	-	-	3712273	Oakland West	Unprocessed	Animals - Birds - Corvidae - Pica nuttalli
Animals - Birds	Falco columbarius	merlin	ABNKD06030	None	None	WL	-	3712272	Oakland East	Unprocessed	Animals - Birds - Falconidae - Falco columbarius
Animals - Birds	Falco columbarius	merlin	ABNKD06030	None	None	WL	-	3712262	San Leandro	Unprocessed	Animals - Birds - Falconidae - Falco columbarius
Animals - Birds	Falco columbarius	merlin	ABNKD06030	None	None	WL	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Falconidae - Falco columbarius
Animals - Birds	Falco columbarius	merlin	ABNKD06030	None	None	WL	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Falconidae - Falco columbarius
Animals - Birds	Falco mexicanus	prairie falcon	ABNKD06090	None	None	WL	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Falconidae - Falco mexicanus
Animals - Birds	Falco mexicanus	prairie falcon	ABNKD06090	None	None	WL	-	3712264	San Francisco South	Unprocessed	Animals - Birds - Falconidae - Falco mexicanus
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	3712264	San Francisco South	Mapped	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	3712273	Oakland West	Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum

Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Spinus lawrencei	Lawrence's goldfinch	ABPBY06100	None	None	-	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Fringillidae - Spinus lawrencei
Animals - Birds	Spinus lawrencei	Lawrence's goldfinch	ABPBY06100	None	None	-	-	3712283	Richmond	Unprocessed	Animals - Birds - Fringillidae - Spinus lawrencei
Animals - Birds	Spinus lawrencei	Lawrence's goldfinch	ABPBY06100	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Birds - Fringillidae - Spinus lawrencei
Animals - Birds	Riparia riparia	bank swallow	ABPAU08010	None	Threatened	-	-	3712264	San Francisco South	Mapped	Animals - Birds - Hirundinidae - Riparia riparia
Animals - Birds	Riparia riparia	bank swallow	ABPAU08010	None	Threatened	-	-	3712274	San Francisco North	Mapped	Animals - Birds - Hirundinidae - Riparia riparia
Animals - Birds	Xanthocephalus xanthocephalus	yellow-headed blackbird	ABPBXB3010	None	None	SSC	-	3712283	Richmond	Mapped	Animals - Birds - Icteridae - Xanthocephalus xanthocephalus
Animals - Birds	Lanius ludovicianus	loggerhead shrike	ABPBR01030	None	None	SSC	-	3712283	Richmond	Unprocessed	Animals - Birds - Laniidae - Lanius ludovicianus
Animals - Birds	Lanius ludovicianus	loggerhead shrike	ABPBR01030	None	None	SSC	-	3712264	San Francisco South	Unprocessed	Animals - Birds - Laniidae - Lanius ludovicianus
Animals - Birds	Lanius ludovicianus	loggerhead shrike	ABPBR01030	None	None	SSC	-	3712272	Oakland East	Unprocessed	Animals - Birds - Laniidae - Lanius ludovicianus
Animals - Birds	Lanius ludovicianus	loggerhead shrike	ABPBR01030	None	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Birds - Laniidae - Lanius ludovicianus
Animals - Birds	Hydroprogne caspia	Caspian tern	ABNNM08020	None	None	-	-	3712283	Richmond	Mapped	Animals - Birds - Laridae - Hydroprogne caspia
Animals - Birds	Hydroprogne caspia	Caspian tern	ABNNM08020	None	None	-	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Laridae - Hydroprogne caspia
Animals - Birds	Larus californicus	California gull	ABNNM03110	None	None	WL	-	3712262	San Leandro	Unprocessed	Animals - Birds - Laridae - Larus californicus
Animals - Birds	Rynchops niger	black skimmer	ABNNM14010	None	None	SSC	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Birds - Laridae - Rynchops niger
Animals - Birds	Sternula antillarum browni	California least tern	ABNNM08103	Endangered	Endangered	FP	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Birds - Laridae - Sternula antillarum browni
Animals - Birds	Sternula antillarum browni	California least tern	ABNNM08103	Endangered	Endangered	FP	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Birds - Laridae - Sternula antillarum browni
Animals - Birds	Sternula antillarum browni	California least tern	ABNNM08103	Endangered	Endangered	FP	-	3712283	Richmond	Unprocessed	Animals - Birds - Laridae - Sternula antillarum browni
Animals - Birds	Thalasseus elegans	elegant tern	ABNNM08040	None	None	WL	-	3712263	Hunters Point	Unprocessed	Animals - Birds - Laridae - Thalasseus elegans
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3712283	Richmond	Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Baeolophus inornatus	oak titmouse	ABPAW01100	None	None	-	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Paridae - Baeolophus inornatus

Animals - Birds	Baeolophus inornatus	oak titmouse	ABPAW01100	None	None	-	-	3712283	Richmond	Unprocessed	Animals - Birds - Paridae - Baeolophus inornatus
Animals - Birds	Baeolophus inornatus	oak titmouse	ABPAW01100	None	None	-	-	3712273	Oakland West	Unprocessed	Animals - Birds - Paridae - Baeolophus inornatus
Animals - Birds	Baeolophus inornatus	oak titmouse	ABPAW01100	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Birds - Paridae - Baeolophus inornatus
Animals - Birds	Geothlypis trichas sinuosa	saltmarsh common yellowthroat	ABPBX1201A	None	None	SSC	-	3712273	Oakland West	Mapped	Animals - Birds - Parulidae - Geothlypis trichas sinuosa
Animals - Birds	Geothlypis trichas sinuosa	saltmarsh common yellowthroat	ABPBX1201A	None	None	SSC	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Birds - Parulidae - Geothlypis trichas sinuosa
Animals - Birds	Geothlypis trichas sinuosa	saltmarsh common yellowthroat	ABPBX1201A	None	None	SSC	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Birds - Parulidae - Geothlypis trichas sinuosa
Animals - Birds	Geothlypis trichas sinuosa	saltmarsh common yellowthroat	ABPBX1201A	None	None	SSC	-	3712283	Richmond	Unprocessed	Animals - Birds - Parulidae - Geothlypis trichas sinuosa
Animals - Birds	Geothlypis trichas sinuosa	saltmarsh common yellowthroat	ABPBX1201A	None	None	SSC	-	3712284	San Quentin	Unprocessed	Animals - Birds - Parulidae - Geothlypis trichas sinuosa
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3712283	Richmond	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3712272	Oakland East	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Ammodramus savannarum	grasshopper sparrow	ABPBXA0020	None	None	SSC	-	3712272	Oakland East	Unprocessed	Animals - Birds - Passerellidae - Ammodramus savannarum
Animals - Birds	Ammodramus savannarum	grasshopper sparrow	ABPBXA0020	None	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Birds - Passerellidae - Ammodramus savannarum
Animals - Birds	Ammodramus savannarum	grasshopper sparrow	ABPBXA0020	None	None	SSC	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Passerellidae - Ammodramus savannarum
Animals - Birds	Melospiza melodia maxillaris	Suisun song sparrow	ABPBXA301K	None	None	SSC	-	3712282	Briones Valley	Mapped	Animals - Birds - Passerellidae - Melospiza melodia maxillaris
Animals - Birds	Melospiza melodia maxillaris	Suisun song sparrow	ABPBXA301K	None	None	SSC	-	3712284	San Quentin	Unprocessed	Animals - Birds - Passerellidae - Melospiza melodia maxillaris
Animals - Birds	Melospiza melodia pusillula	Alameda song sparrow	ABPBXA301S	None	None	SSC	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Birds - Passerellidae - Melospiza melodia pusillula
Animals - Birds	Melospiza melodia pusillula	Alameda song sparrow	ABPBXA301S	None	None	SSC	-	3712283	Richmond	Mapped and Unprocessed	Animals - Birds - Passerellidae - Melospiza melodia pusillula

Animals - Birds	Melospiza melodia pusillula	Alameda song sparrow	ABPBXA301S	None	None	SSC	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Birds - Passerellidae - Melospiza melodia pusillula
Animals - Birds	Melospiza melodia pusillula	Alameda song sparrow	ABPBXA301S	None	None	SSC	-	3712272	Oakland East	Mapped	Animals - Birds - Passerellidae - Melospiza melodia pusillula
Animals - Birds	Melospiza melodia pusillula	Alameda song sparrow	ABPBXA301S	None	None	SSC	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Birds - Passerellidae - Melospiza melodia pusillula
Animals - Birds	Melospiza melodia pusillula	Alameda song sparrow	ABPBXA301S	None	None	SSC	-	3712264	San Francisco South	Mapped	Animals - Birds - Passerellidae - Melospiza melodia pusillula
Animals - Birds	Melospiza melodia pusillula	Alameda song sparrow	ABPBXA301S	None	None	SSC	-	3712263	Hunters Point	Mapped	Animals - Birds - Passerellidae - Melospiza melodia pusillula
Animals - Birds	Melospiza melodia samuelis	San Pablo song sparrow	ABPBXA301W	None	None	SSC	-	3712283	Richmond	Mapped and Unprocessed	Animals - Birds - Passerellidae - Melospiza melodia samuelis
Animals - Birds	Melospiza melodia samuelis	San Pablo song sparrow	ABPBXA301W	None	None	SSC	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Birds - Passerellidae - Melospiza melodia samuelis
Animals - Birds	Melospiza melodia samuelis	San Pablo song sparrow	ABPBXA301W	None	None	SSC	-	3712274	San Francisco North	Mapped	Animals - Birds - Passerellidae - Melospiza melodia samuelis
Animals - Birds	Passerculus sandwichensis alaudinus	Bryant's savannah sparrow	ABPBX99011	None	None	SSC	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Passerellidae - Passerculus sandwichensis alaudinus
Animals - Birds	Passerculus sandwichensis alaudinus	Bryant's savannah sparrow	ABPBX99011	None	None	SSC	-	3712272	Oakland East	Unprocessed	Animals - Birds - Passerellidae - Passerculus sandwichensis alaudinus
Animals - Birds	Passerculus sandwichensis alaudinus	Bryant's savannah sparrow	ABPBX99011	None	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Birds - Passerellidae - Passerculus sandwichensis alaudinus
Animals - Birds	Pelecanus occidentalis californicus	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	3712273	Oakland West	Unprocessed	Animals - Birds - Pelecanidae - Pelecanus occidentalis californicus
Animals - Birds	Pelecanus occidentalis californicus	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	3712263	Hunters Point	Unprocessed	Animals - Birds - Pelecanidae - Pelecanus occidentalis californicus
Animals - Birds	Pelecanus occidentalis californicus	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	3712264	San Francisco South	Unprocessed	Animals - Birds - Pelecanidae - Pelecanus occidentalis californicus
Animals - Birds	Pelecanus occidentalis californicus	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Pelecanidae - Pelecanus occidentalis californicus
Animals - Birds	Phalacrocorax auritus	double-crested cormorant	ABNFD01020	None	None	WL	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Birds - Phalacrocoracidae - Phalacrocorax auritus
Animals - Birds	Phalacrocorax auritus	double-crested cormorant	ABNFD01020	None	None	WL	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Birds - Phalacrocoracidae - Phalacrocorax auritus

Animals - Birds	Phalacrocorax auritus	double-crested cormorant	ABNFD01020	None	None	WL	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Birds - Phalacrocoracidae - Phalacrocorax auritus
Animals - Birds	Phalacrocorax auritus	double-crested cormorant	ABNFD01020	None	None	WL	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Birds - Phalacrocoracidae - Phalacrocorax auritus
Animals - Birds	Coturnicops noveboracensis	yellow rail	ABNME01010	None	None	SSC	-	3712273	Oakland West	Mapped	Animals - Birds - Rallidae - Coturnicops noveboracensis
Animals - Birds	Coturnicops noveboracensis	yellow rail	ABNME01010	None	None	SSC	-	3712272	Oakland East	Mapped	Animals - Birds - Rallidae - Coturnicops noveboracensis
Animals - Birds	Coturnicops noveboracensis	yellow rail	ABNME01010	None	None	SSC	-	3712262	San Leandro	Mapped	Animals - Birds - Rallidae - Coturnicops noveboracensis
Animals - Birds	Coturnicops noveboracensis	yellow rail	ABNME01010	None	None	SSC	-	3712282	Briones Valley	Mapped	Animals - Birds - Rallidae - Coturnicops noveboracensis
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3712274	San Francisco North	Mapped	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3712283	Richmond	Mapped and Unprocessed	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3712264	San Francisco South	Mapped	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	3712273	Oakland West	Mapped	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Birds	Rallus obsoletus obsoletus	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Birds - Rallidae - Rallus obsoletus obsoletus
Animals - Birds	Rallus obsoletus obsoletus	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Birds - Rallidae - Rallus obsoletus obsoletus
Animals - Birds	Rallus obsoletus obsoletus	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Birds - Rallidae - Rallus obsoletus obsoletus
Animals - Birds	Rallus obsoletus obsoletus	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	3712263	Hunters Point	Mapped and Unprocessed	Animals - Birds - Rallidae - Rallus obsoletus obsoletus

Animals - Birds	Rallus obsoletus obsoletus	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Birds - Rallidae - Rallus obsoletus obsoletus
Animals - Birds	Rallus obsoletus obsoletus	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	3712283	Richmond	Mapped and Unprocessed	Animals - Birds - Rallidae - Rallus obsoletus obsoletus
Animals - Birds	Rallus obsoletus obsoletus	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Birds - Rallidae - Rallus obsoletus obsoletus
Animals - Birds	Rallus obsoletus obsoletus	California Ridgway's rail	ABNME05011	Endangered	Endangered	FP	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Rallidae - Rallus obsoletus obsoletus
Animals - Birds	Numenius americanus	long-billed curlew	ABNNF07070	None	None	WL	-	3712284	San Quentin	Unprocessed	Animals - Birds - Scolopacidae - Numenius americanus
Animals - Birds	Numenius americanus	long-billed curlew	ABNNF07070	None	None	WL	-	3712283	Richmond	Unprocessed	Animals - Birds - Scolopacidae - Numenius americanus
Animals - Birds	Numenius americanus	long-billed curlew	ABNNF07070	None	None	WL	-	3712272	Oakland East	Unprocessed	Animals - Birds - Scolopacidae - Numenius americanus
Animals - Birds	Asio flammeus	short-eared owl	ABNSB13040	None	None	SSC	-	3712272	Oakland East	Unprocessed	Animals - Birds - Strigidae - Asio flammeus
Animals - Birds	Asio flammeus	short-eared owl	ABNSB13040	None	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Birds - Strigidae - Asio flammeus
Animals - Birds	Asio flammeus	short-eared owl	ABNSB13040	None	None	SSC	-	3712284	San Quentin	Mapped	Animals - Birds - Strigidae - Asio flammeus
Animals - Birds	Asio otus	long-eared owl	ABNSB13010	None	None	SSC	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Strigidae - Asio otus
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3712274	San Francisco North	Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3712283	Richmond	Mapped and Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3712272	Oakland East	Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3712264	San Francisco South	Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Selasphorus rufus	rufous hummingbird	ABNUC51020	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Birds - Trochilidae - Selasphorus rufus
Animals - Birds	Selasphorus rufus	rufous hummingbird	ABNUC51020	None	None	-	-	3712273	Oakland West	Unprocessed	Animals - Birds - Trochilidae - Selasphorus rufus
Animals - Birds	Selasphorus rufus	rufous hummingbird	ABNUC51020	None	None	-	-	3712283	Richmond	Unprocessed	Animals - Birds - Trochilidae - Selasphorus rufus
Animals - Birds	Empidonax traillii	willow flycatcher	ABPAE33040	None	Endangered	-	-	3712282	Briones Valley	Unprocessed	Animals - Birds - Tyrannidae - Empidonax traillii

Animals - Crustaceans	Caecidotea tomalensis	Tomales isopod	ICMAL01220	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Crustaceans - Asellidae - Caecidotea tomalensis
Animals - Fish	Acipenser medirostris	green sturgeon	AFCAA01030	Threatened	None	SSC	-	3712284	San Quentin	Unprocessed	Animals - Fish - Acipenseridae - Acipenser medirostris
Animals - Fish	Acipenser transmontanus	white sturgeon	AFCAA01050	None	None	SSC	-	3712263	Hunters Point	Unprocessed	Animals - Fish - Acipenseridae - Acipenser transmontanus
Animals - Fish	Acipenser transmontanus	white sturgeon	AFCAA01050	None	None	SSC	-	3712262	San Leandro	Unprocessed	Animals - Fish - Acipenseridae - Acipenser transmontanus
Animals - Fish	Archoplites interruptus	Sacramento perch	AFCQB07010	None	None	SSC	-	3712283	Richmond	Mapped	Animals - Fish - Centrarchidae - Archoplites interruptus
Animals - Fish	Archoplites interruptus	Sacramento perch	AFCQB07010	None	None	SSC	-	3712282	Briones Valley	Mapped	Animals - Fish - Centrarchidae - Archoplites interruptus
Animals - Fish	Mylopharodon conocephalus	hardhead	AFCJB25010	None	None	SSC	-	3712264	San Francisco South	Mapped	Animals - Fish - Cyprinidae - Mylopharodon conocephalus
Animals - Fish	Pogonichthys macrolepidotus	Sacramento splittail	AFCJB34020	None	None	SSC	-	3712284	San Quentin	Unprocessed	Animals - Fish - Cyprinidae - Pogonichthys macrolepidotus
Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	SSC	-	3712274	San Francisco North	Unprocessed	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	SSC	-	3712264	San Francisco South	Mapped	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	SSC	-	3712273	Oakland West	Mapped	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	SSC	-	3712272	Oakland East	Mapped	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Hypomesus transpacificus	Delta smelt	AFCHB01040	Threatened	Endangered	-	-	3712273	Oakland West	Unprocessed	Animals - Fish - Osmeridae - Hypomesus transpacificus
Animals - Fish	Hypomesus transpacificus	Delta smelt	AFCHB01040	Threatened	Endangered	-	-	3712274	San Francisco North	Unprocessed	Animals - Fish - Osmeridae - Hypomesus transpacificus
Animals - Fish	Hypomesus transpacificus	Delta smelt	AFCHB01040	Threatened	Endangered	-	-	3712284	San Quentin	Unprocessed	Animals - Fish - Osmeridae - Hypomesus transpacificus
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	3712283	Richmond	Mapped	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Fish - Osmeridae - Spirinchus thaleichthys

Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	3712272	Oakland East	Mapped	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	3712262	San Leandro	Mapped	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	3712263	Hunters Point	Mapped and Unprocessed	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Spirinchus thaleichthys	longfin smelt	AFCHB03010	Candidate	Threatened	-	-	3712264	San Francisco South	Mapped	Animals - Fish - Osmeridae - Spirinchus thaleichthys
Animals - Fish	Thaleichthys pacificus	eulachon	AFCHB04010	Threatened	None	-	-	3712284	San Quentin	Mapped	Animals - Fish - Osmeridae - Thaleichthys pacificus
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	3712284	San Quentin	Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Lampetra ayresii	river lamprey	AFBAA02030	None	None	SSC	-	3712284	San Quentin	Unprocessed	Animals - Fish - Petromyzontidae - Lampetra ayresii
Animals - Fish	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3712284	San Quentin	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 11
Animals - Fish	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3712273	Oakland West	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 11
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	3712283	Richmond	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3712283	Richmond	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3712284	San Quentin	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3712282	Briones Valley	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3712273	Oakland West	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3712272	Oakland East	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3712262	San Leandro	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8

Animals - Fish	Oncorhynchus tshawytscha pop. 13	chinook salmon - Central Valley fall / late fall-run ESU	AFCHA0205N	None	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 13
Animals - Fish	Oncorhynchus tshawytscha pop. 13	chinook salmon - Central Valley fall / late fall-run ESU	AFCHA0205N	None	None	SSC	-	3712274	San Francisco North	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 13
Animals - Fish	Oncorhynchus tshawytscha pop. 13	chinook salmon - Central Valley fall / late fall-run ESU	AFCHA0205N	None	None	SSC	-	3712284	San Quentin	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 13
Animals - Fish	Oncorhynchus tshawytscha pop. 30	chinook salmon - upper Klamath and Trinity Rivers ESU	AFCHA02056	None	Candidate Endangered	SSC	-	3712284	San Quentin	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 30
Animals - Fish	Oncorhynchus tshawytscha pop. 6	chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	-	-	3712284	San Quentin	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 6
Animals - Fish	Oncorhynchus tshawytscha pop. 6	chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	-	-	3712274	San Francisco North	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 6
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3712274	San Francisco North	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3712282	Briones Valley	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3712284	San Quentin	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3712283	Richmond	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3712273	Oakland West	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3712272	Oakland East	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3712283	Richmond	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis

Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Cicindela hirticollis gravida	sandy beach tiger beetle	IICOL02101	None	None	-	-	3712274	San Francisco North	Mapped	Animals - Insects - Carabidae - Cicindela hirticollis gravida
Animals - Insects	Cicindela hirticollis gravida	sandy beach tiger beetle	IICOL02101	None	None	-	-	3712273	Oakland West	Mapped	Animals - Insects - Carabidae - Cicindela hirticollis gravida
Animals - Insects	Cicindela hirticollis gravida	sandy beach tiger beetle	IICOL02101	None	None	-	-	3712263	Hunters Point	Mapped	Animals - Insects - Carabidae - Cicindela hirticollis gravida
Animals - Insects	Cicindela hirticollis gravida	sandy beach tiger beetle	IICOL02101	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Insects - Carabidae - Cicindela hirticollis gravida
Animals - Insects	Ischnura gemina	San Francisco forktail damselfly	IIODO72010	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Insects - Coenagrionidae - Ischnura gemina
Animals - Insects	Hydroporus leechi	Leech's skyline diving beetle	IICOL55040	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Insects - Dytiscidae - Hydroporus leechi
Animals - Insects	Lichnanthe ursina	bumblebee scarab beetle	IICOL67020	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Insects - Glaphyridae - Lichnanthe ursina
Animals - Insects	Lichnanthe ursina	bumblebee scarab beetle	IICOL67020	None	None	-	-	3712274	San Francisco North	Mapped	Animals - Insects - Glaphyridae - Lichnanthe ursina
Animals - Insects	Dufourea stagei	Stage's dufourine bee	IIHYM22010	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Insects - Halictidae - Dufourea stagei
Animals - Insects	Adela oplerella	Opler's longhorn moth	IILEE0G040	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Insects - Incurvariidae - Adela oplerella
Animals - Insects	Adela oplerella	Opler's longhorn moth	IILEE0G040	None	None	-	-	3712284	San Quentin	Mapped	Animals - Insects - Incurvariidae - Adela oplerella
Animals - Insects	Callophrys mossii bayensis	San Bruno elfin butterfly	IILEPE2202	Endangered	None	-	-	3712264	San Francisco South	Mapped	Animals - Insects - Lycaenidae - Callophrys mossii bayensis
Animals - Insects	Plebejus icarioides missionensis	Mission blue butterfly	IILEPG801A	Endangered	None	-	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Insects - Lycaenidae - Plebejus icarioides missionensis
Animals - Insects	Plebejus icarioides missionensis	Mission blue butterfly	IILEPG801A	Endangered	None	-	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Insects - Lycaenidae - Plebejus icarioides missionensis
Animals - Insects	Trachusa gummifera	San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	-	-	3712274	San Francisco North	Mapped	Animals - Insects - Megachilidae - Trachusa gummifera
Animals - Insects	Trachusa gummifera	San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Insects - Megachilidae - Trachusa gummifera
Animals - Insects	Trachusa gummifera	San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	-	-	3712263	Hunters Point	Mapped	Animals - Insects - Megachilidae - Trachusa gummifera
Animals - Insects	Trachusa gummifera	San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	-	-	3712273	Oakland West	Mapped	Animals - Insects - Megachilidae - Trachusa gummifera

Animals - Insects	Danaus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	None	None	-	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Danaus plexippus pop. 1
Animals - Insects	Danaus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	None	None	-	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Danaus plexippus pop. 1
Animals - Insects	Danaus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	None	None	-	-	3712264	San Francisco South	Unprocessed	Animals - Insects - Nymphalidae - Danaus plexippus pop. 1
Animals - Insects	Danaus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	None	None	-	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Danaus plexippus pop. 1
Animals - Insects	Danaus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	None	None	-	-	3712284	San Quentin	Mapped	Animals - Insects - Nymphalidae - Danaus plexippus pop. 1
Animals - Insects	Danaus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	None	None	-	-	3712283	Richmond	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Danaus plexippus pop. 1
Animals - Insects	Euphydryas editha bayensis	Bay checkerspot butterfly	IILEPK4055	Threatened	None	-	-	3712274	San Francisco North	Mapped	Animals - Insects - Nymphalidae - Euphydryas editha bayensis
Animals - Insects	Euphydryas editha bayensis	Bay checkerspot butterfly	IILEPK4055	Threatened	None	-	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Euphydryas editha bayensis
Animals - Insects	Euphydryas editha bayensis	Bay checkerspot butterfly	IILEPK4055	Threatened	None	-	-	3712272	Oakland East	Mapped	Animals - Insects - Nymphalidae - Euphydryas editha bayensis
Animals - Insects	Speyeria callippe callippe	callippe silverspot butterfly	IILEPJ6091	Endangered	None	-	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Speyeria callippe callippe
Animals - Insects	Speyeria callippe callippe	callippe silverspot butterfly	IILEPJ6091	Endangered	None	-	-	3712274	San Francisco North	Mapped	Animals - Insects - Nymphalidae - Speyeria callippe callippe
Animals - Mammals	Zapus trinotatus orarius	Point Reyes jumping mouse	AMAFH01031	None	None	SSC	-	3712274	San Francisco North	Mapped	Animals - Mammals - Dipodidae - Zapus trinotatus orarius
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Dipodomys heermanni berkeleyensis	Berkeley kangaroo rat	AMAFD03061	None	None	-	-	3712272	Oakland East	Mapped	Animals - Mammals - Heteromyidae - Dipodomys heermanni berkeleyensis
Animals - Mammals	Dipodomys heermanni berkeleyensis	Berkeley kangaroo rat	AMAFD03061	None	None	-	-	3712282	Briones Valley	Mapped	Animals - Mammals - Heteromyidae - Dipodomys heermanni berkeleyensis
Animals - Mammals	Nyctinomops macrotis	big free-tailed bat	AMACD04020	None	None	SSC	-	3712282	Briones Valley	Mapped	Animals - Mammals - Molossidae - Nyctinomops macrotis

Animals - Mammals	Nyctinomops macrotis	big free-tailed bat	AMACD04020	None	None	SSC	-	3712283	Richmond	Mapped	Animals - Mammals - Molossidae - Nyctinomops macrotis
Animals - Mammals	Nyctinomops macrotis	big free-tailed bat	AMACD04020	None	None	SSC	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Mammals - Molossidae - Nyctinomops macrotis
Animals - Mammals	Microtus californicus sanpabloensis	San Pablo vole	AMAFF11034	None	None	SSC	-	3712283	Richmond	Mapped and Unprocessed	Animals - Mammals - Muridae - Microtus californicus sanpabloensis
Animals - Mammals	Microtus californicus sanpabloensis	San Pablo vole	AMAFF11034	None	None	SSC	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Mammals - Muridae - Microtus californicus sanpabloensis
Animals - Mammals	Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	AMAFF08082	None	None	SSC	-	3712283	Richmond	Unprocessed	Animals - Mammals - Muridae - Neotoma fuscipes annectens
Animals - Mammals	Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	AMAFF08082	None	None	SSC	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Mammals - Muridae - Neotoma fuscipes annectens
Animals - Mammals	Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	AMAFF08082	None	None	SSC	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Mammals - Muridae - Neotoma fuscipes annectens
Animals - Mammals	Reithrodontomys raviventris	salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	FP	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Mammals - Muridae - Reithrodontomys raviventris
Animals - Mammals	Reithrodontomys raviventris	salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	FP	-	3712262	San Leandro	Mapped and Unprocessed	Animals - Mammals - Muridae - Reithrodontomys raviventris
Animals - Mammals	Reithrodontomys raviventris	salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	FP	-	3712283	Richmond	Mapped and Unprocessed	Animals - Mammals - Muridae - Reithrodontomys raviventris
Animals - Mammals	Reithrodontomys raviventris	salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	FP	-	3712284	San Quentin	Mapped and Unprocessed	Animals - Mammals - Muridae - Reithrodontomys raviventris
Animals - Mammals	Enhydra lutris nereis	southern sea otter	AMAJF09012	Threatened	None	FP	-	3712274	San Francisco North	Mapped	Animals - Mammals - Mustelidae - Enhydra lutris nereis
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3712274	San Francisco North	Mapped	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3712272	Oakland East	Mapped	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Sorex vagrans halicoetes	salt-marsh wandering shrew	AMABA01071	None	None	SSC	-	3712262	San Leandro	Mapped	Animals - Mammals - Soricidae - Sorex vagrans halicoetes
Animals - Mammals	Sorex vagrans halicoetes	salt-marsh wandering shrew	AMABA01071	None	None	SSC	-	3712284	San Quentin	Mapped	Animals - Mammals - Soricidae - Sorex vagrans halicoetes

Animals - Mammals	Sorex vagrans halicoetes	salt-marsh wandering shrew	AMABA01071	None	None	SSC	-	3712283	Richmond	Mapped	Animals - Mammals - Soricidae - Sorex vagrans halicoetes
Animals - Mammals	Scapanus latimanus insularis	Angel Island mole	AMABB02032	None	None	-	-	3712274	San Francisco North	Mapped	Animals - Mammals - Talpidae - Scapanus latimanus insularis
Animals - Mammals	Scapanus latimanus parvus	Alameda Island mole	AMABB02031	None	None	SSC	-	3712262	San Leandro	Mapped	Animals - Mammals - Talpidae - Scapanus latimanus parvus
Animals - Mammals	Scapanus latimanus parvus	Alameda Island mole	AMABB02031	None	None	SSC	-	3712272	Oakland East	Mapped	Animals - Mammals - Talpidae - Scapanus latimanus parvus
Animals - Mammals	Scapanus latimanus parvus	Alameda Island mole	AMABB02031	None	None	SSC	-	3712273	Oakland West	Mapped	Animals - Mammals - Talpidae - Scapanus latimanus parvus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712273	Oakland West	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712272	Oakland East	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712283	Richmond	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712284	San Quentin	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712283	Richmond	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712282	Briones Valley	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712272	Oakland East	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712273	Oakland West	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712264	San Francisco South	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii

Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	3712272	Oakland East	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	3712283	Richmond	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	3712283	Richmond	Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	3712264	San Francisco South	Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	3712264	San Francisco South	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	3712273	Oakland West	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	3712274	San Francisco North	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	3712283	Richmond	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Myotis lucifugus	little brown bat	AMACC01010	None	None	-	-	3712274	San Francisco North	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis lucifugus
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3712274	San Francisco North	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3712282	Briones Valley	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mollusks	Helminthoglypta nickliniana bridgesi	Bridges' coast range shoulderband	IMGASC2362	None	None	-	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Mollusks - Helminthoglyptidae - Helminthoglypta nickliniana bridgesi
Animals - Mollusks	Helminthoglypta nickliniana bridgesi	Bridges' coast range shoulderband	IMGASC2362	None	None	-	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Mollusks - Helminthoglyptidae - Helminthoglypta nickliniana bridgesi
Animals - Mollusks	Helminthoglypta nickliniana bridgesi	Bridges' coast range shoulderband	IMGASC2362	None	None	-	-	3712283	Richmond	Mapped	Animals - Mollusks - Helminthoglyptidae - Helminthoglypta nickliniana bridgesi

Animals - Mollusks	Tryonia imitator	mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	-	-	3712284	San Quentin	Mapped	Animals - Mollusks - Hydrobiidae - Tryonia imitator
Animals - Mollusks	Tryonia imitator	mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	-	-	3712272	Oakland East	Mapped	Animals - Mollusks - Hydrobiidae - Tryonia imitator
Animals - Mollusks	Tryonia imitator	mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	-	-	3712273	Oakland West	Mapped	Animals - Mollusks - Hydrobiidae - Tryonia imitator
Animals - Mollusks	Tryonia imitator	mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	-	-	3712262	San Leandro	Mapped	Animals - Mollusks - Hydrobiidae - Tryonia imitator
Animals - Mollusks	Tryonia imitator	mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	-	-	3712263	Hunters Point	Mapped	Animals - Mollusks - Hydrobiidae - Tryonia imitator
Animals - Mollusks	Vespericola marinensis	Marin hesperian	IMGASA4140	None	None	-	-	3712274	San Francisco North	Mapped	Animals - Mollusks - Polygyridae - Vespericola marinensis
Animals - Mollusks	Anodonta californiensis	California floater	IMBIV04020	None	None	-	-	3712274	San Francisco North	Unprocessed	Animals - Mollusks - Unionidae - Anodonta californiensis
Animals - Mollusks	Anodonta californiensis	California floater	IMBIV04020	None	None	-	-	3712264	San Francisco South	Unprocessed	Animals - Mollusks - Unionidae - Anodonta californiensis
Animals - Mollusks	Anodonta oregonensis	Oregon floater	IMBIV04110	None	None	-	-	3712274	San Francisco North	Unprocessed	Animals - Mollusks - Unionidae - Anodonta oregonensis
Animals - Mollusks	Gonidea angulata	western ridged mussel	IMBIV19010	None	None	-	-	3712272	Oakland East	Unprocessed	Animals - Mollusks - Unionidae - Gonidea angulata
Animals - Reptiles	Masticophis lateralis euryxanthus	Alameda whipsnake	ARADB21031	Threatened	Threatened	-	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Reptiles - Colubridae - Masticophis lateralis euryxanthus
Animals - Reptiles	Masticophis lateralis euryxanthus	Alameda whipsnake	ARADB21031	Threatened	Threatened	-	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Reptiles - Colubridae - Masticophis lateralis euryxanthus
Animals - Reptiles	Masticophis lateralis euryxanthus	Alameda whipsnake	ARADB21031	Threatened	Threatened	-	-	3712283	Richmond	Mapped and Unprocessed	Animals - Reptiles - Colubridae - Masticophis lateralis euryxanthus
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3712283	Richmond	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3712282	Briones Valley	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3712274	San Francisco North	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3712272	Oakland East	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Thamnophis sirtalis tetrataenia	San Francisco gartersnake	ARADB3613B	Endangered	Endangered	FP	-	3712264	San Francisco South	Mapped and Unprocessed	Animals - Reptiles - Natricidae - Thamnophis sirtalis tetrataenia

Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3712272	Oakland East	Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3712273	Oakland West	Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3712274	San Francisco North	Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3712283	Richmond	Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Community - Terrestrial	Coastal Terrace Prairie	Coastal Terrace Prairie	CTT41100CA	None	None	-	-	3712284	San Quentin	Mapped	Community - Terrestrial - Coastal Terrace Prairie
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	3712284	San Quentin	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	3712283	Richmond	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	3712273	Oakland West	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	3712262	San Leandro	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Maritime Chaparral	Northern Maritime Chaparral	CTT37C10CA	None	None	-	-	3712272	Oakland East	Mapped	Community - Terrestrial - Northern Maritime Chaparral
Community - Terrestrial	Northern Maritime Chaparral	Northern Maritime Chaparral	CTT37C10CA	None	None	-	-	3712283	Richmond	Mapped	Community - Terrestrial - Northern Maritime Chaparral
Community - Terrestrial	Northern Maritime Chaparral	Northern Maritime Chaparral	CTT37C10CA	None	None	-	-	3712282	Briones Valley	Mapped	Community - Terrestrial - Northern Maritime Chaparral
Community - Terrestrial	Serpentine Bunchgrass	Serpentine Bunchgrass	CTT42130CA	None	None	-	-	3712284	San Quentin	Mapped	Community - Terrestrial - Serpentine Bunchgrass
Community - Terrestrial	Serpentine Bunchgrass	Serpentine Bunchgrass	CTT42130CA	None	None	-	-	3712272	Oakland East	Mapped	Community - Terrestrial - Serpentine Bunchgrass
Community - Terrestrial	Valley Needlegrass Grassland	Valley Needlegrass Grassland	CTT42110CA	None	None	-	-	3712283	Richmond	Mapped	Community - Terrestrial - Valley Needlegrass Grassland
Plants - Bryophytes	Fissidens pauperculus	minute pocket moss	NBMUS2W0U0	None	None	-	1B.2	3712282	Briones Valley	Mapped	Plants - Bryophytes - Fissidentaceae - Fissidens pauperculus
Plants - Bryophytes	Fissidens pauperculus	minute pocket moss	NBMUS2W0U0	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Bryophytes - Fissidentaceae - Fissidens pauperculus
Plants - Bryophytes	Triquetrella californica	coastal triquetrella	NBMUS7S010	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Bryophytes - Pottiaceae - Triquetrella californica
Plants - Bryophytes	Triquetrella californica	coastal triquetrella	NBMUS7S010	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Bryophytes - Pottiaceae - Triquetrella californica

Plants - Bryophytes	Triquetrella californica	coastal triquetrella	NBMUS7S010	None	None	-	1B.2	3712284	San Quentin	Mapped	Plants - Bryophytes - Pottiaceae - Triquetrella californica
Plants - Lichens	Hypogymnia schizidiata	island tube lichen	NLT0032640	None	None	-	1B.3	3712274	San Francisco North	Mapped	Plants - Lichens - Parmeliaceae - Hypogymnia schizidiata
Plants - Vascular	Allium peninsulare var. franciscanum	Franciscan onion	PMLIL021R1	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Alliaceae - Allium peninsulare var. franciscanum
Plants - Vascular	Cicuta maculata var. bolanderi	Bolander's water-hemlock	PDAPI0M051	None	None	-	2B.1	3712282	Briones Valley	Mapped	Plants - Vascular - Apiaceae - Cicuta maculata var. bolanderi
Plants - Vascular	Eryngium jepsonii	Jepson's coyote-thistle	PDAPI0Z130	None	None	-	1B.2	3712282	Briones Valley	Mapped	Plants - Vascular - Apiaceae - Eryngium jepsonii
Plants - Vascular	Eryngium jepsonii	Jepson's coyote-thistle	PDAPI0Z130	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Apiaceae - Eryngium jepsonii
Plants - Vascular	Sanicula maritima	adobe sanicle	PDAPI1Z0D0	None	Rare	-	1B.1	3712272	Oakland East	Mapped	Plants - Vascular - Apiaceae - Sanicula maritima
Plants - Vascular	Sanicula maritima	adobe sanicle	PDAPI1Z0D0	None	Rare	-	1B.1	3712273	Oakland West	Mapped	Plants - Vascular - Apiaceae - Sanicula maritima
Plants - Vascular	Sanicula maritima	adobe sanicle	PDAPI1Z0D0	None	Rare	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Apiaceae - Sanicula maritima
Plants - Vascular	Sanicula maritima	adobe sanicle	PDAPI1Z0D0	None	Rare	-	1B.1	3712262	San Leandro	Mapped	Plants - Vascular - Apiaceae - Sanicula maritima
Plants - Vascular	Sanicula maritima	adobe sanicle	PDAPI1Z0D0	None	Rare	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Apiaceae - Sanicula maritima
Plants - Vascular	Centromadia parryi ssp. congdonii	Congdon's tarplant	PDAST4R0P1	None	None	-	1B.1	3712262	San Leandro	Mapped	Plants - Vascular - Asteraceae - Centromadia parryi ssp. congdonii
Plants - Vascular	Centromadia parryi ssp. parryi	pappose tarplant	PDAST4R0P2	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Asteraceae - Centromadia parryi ssp. parryi
Plants - Vascular	Cirsium andrewsii	Franciscan thistle	PDAST2E050	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Asteraceae - Cirsium andrewsii
Plants - Vascular	Cirsium andrewsii	Franciscan thistle	PDAST2E050	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Asteraceae - Cirsium andrewsii
Plants - Vascular	Cirsium andrewsii	Franciscan thistle	PDAST2E050	None	None	-	1B.2	3712282	Briones Valley	Mapped	Plants - Vascular - Asteraceae - Cirsium andrewsii
Plants - Vascular	Cirsium hydrophilum var. vaseyi	Mt. Tamalpais thistle	PDAST2E1G2	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Asteraceae - Cirsium hydrophilum var. vaseyi
Plants - Vascular	Cirsium occidentale var. compactum	compact cobwebby thistle	PDAST2E1Z1	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Asteraceae - Cirsium occidentale var. compactum
Plants - Vascular	Grindelia hirsutula var. maritima	San Francisco gumplant	PDAST470D3	None	None	-	3.2	3712264	San Francisco South	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Grindelia hirsutula var. maritima
Plants - Vascular	Grindelia hirsutula var. maritima	San Francisco gumplant	PDAST470D3	None	None	-	3.2	3712274	San Francisco North	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Grindelia hirsutula var. maritima
Plants - Vascular	Helianthella castanea	Diablo helianthella	PDAST4M020	None	None	-	1B.2	3712282	Briones Valley	Mapped	Plants - Vascular - Asteraceae - Helianthella castanea

Plants - Vascular	Helianthella castanea	Diablo helianthella	PDAST4M020	None	None	-	1B.2	3712283	Richmond	Mapped	Plants - Vascular - Asteraceae - Helianthella castanea
Plants - Vascular	Helianthella castanea	Diablo helianthella	PDAST4M020	None	None	-	1B.2	3712264	San Francisco South	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Helianthella castanea
Plants - Vascular	Helianthella castanea	Diablo helianthella	PDAST4M020	None	None	-	1B.2	3712263	Hunters Point	Mapped	Plants - Vascular - Asteraceae - Helianthella castanea
Plants - Vascular	Helianthella castanea	Diablo helianthella	PDAST4M020	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Asteraceae - Helianthella castanea
Plants - Vascular	Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	PDAST4R065	None	None	-	1B.2	3712273	Oakland West	Mapped	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. congesta
Plants - Vascular	Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	PDAST4R065	None	None	-	1B.2	3712263	Hunters Point	Mapped	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. congesta
Plants - Vascular	Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	PDAST4R065	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. congesta
Plants - Vascular	Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	PDAST4R065	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. congesta
Plants - Vascular	Hesperevax caulescens	hogwallow starfish	PDASTE5020	None	None	-	4.2	3712282	Briones Valley	Unprocessed	Plants - Vascular - Asteraceae - Hesperevax caulescens
Plants - Vascular	Hesperevax sparsiflora var. brevifolia	short-leaved evax	PDASTE5011	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Asteraceae - Hesperevax sparsiflora var. brevifolia
Plants - Vascular	Holocarpha macradenia	Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	-	1B.1	3712273	Oakland West	Mapped	Plants - Vascular - Asteraceae - Holocarpha macradenia
Plants - Vascular	Holocarpha macradenia	Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	-	1B.1	3712282	Briones Valley	Mapped	Plants - Vascular - Asteraceae - Holocarpha macradenia
Plants - Vascular	Holocarpha macradenia	Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	-	1B.1	3712283	Richmond	Mapped	Plants - Vascular - Asteraceae - Holocarpha macradenia
Plants - Vascular	Isocoma arguta	Carquinez goldenbush	PDAST57050	None	None	-	1B.1	3712282	Briones Valley	Mapped	Plants - Vascular - Asteraceae - Isocoma arguta
Plants - Vascular	Lasthenia conjugens	Contra Costa goldfields	PDAST5L040	Endangered	None	-	1B.1	3712262	San Leandro	Mapped	Plants - Vascular - Asteraceae - Lasthenia conjugens
Plants - Vascular	Layia carnosa	beach layia	PDAST5N010	Endangered	Endangered	-	1B.1	3712263	Hunters Point	Mapped	Plants - Vascular - Asteraceae - Layia carnosa
Plants - Vascular	Layia carnosa	beach layia	PDAST5N010	Endangered	Endangered	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Asteraceae - Layia carnosa
Plants - Vascular	Layia carnosa	beach layia	PDAST5N010	Endangered	Endangered	-	1B.1	3712273	Oakland West	Mapped	Plants - Vascular - Asteraceae - Layia carnosa
Plants - Vascular	Layia carnosa	beach layia	PDAST5N010	Endangered	Endangered	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Asteraceae - Layia carnosa

Plants - Vascular	Lessingia germanorum	San Francisco lessingia	PDAST5S010	Endangered	Endangered	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Asteraceae - Lessingia germanorum
Plants - Vascular	Lessingia germanorum	San Francisco lessingia	PDAST5S010	Endangered	Endangered	-	1B.1	3712264	San Francisco South	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Lessingia germanorum
Plants - Vascular	Lessingia hololeuca	woolly-headed lessingia	PDAST5S030	None	None	-	3	3712282	Briones Valley	Unprocessed	Plants - Vascular - Asteraceae - Lessingia hololeuca
Plants - Vascular	Lessingia hololeuca	woolly-headed lessingia	PDAST5S030	None	None	-	3	3712284	San Quentin	Unprocessed	Plants - Vascular - Asteraceae - Lessingia hololeuca
Plants - Vascular	Micropus amphibolus	Mt. Diablo cottonweed	PDAST6D030	None	None	-	3.2	3712274	San Francisco North	Unprocessed	Plants - Vascular - Asteraceae - Micropus amphibolus
Plants - Vascular	Microseris paludosa	marsh microseris	PDAST6E0D0	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Asteraceae - Microseris paludosa
Plants - Vascular	Monolopia gracilens	woodland woollythreads	PDAST6G010	None	None	-	1B.2	3712262	San Leandro	Mapped	Plants - Vascular - Asteraceae - Monolopia gracilens
Plants - Vascular	Monolopia gracilens	woodland woollythreads	PDAST6G010	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Asteraceae - Monolopia gracilens
Plants - Vascular	Pentachaeta bellidiflora	white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Asteraceae - Pentachaeta bellidiflora
Plants - Vascular	Pentachaeta bellidiflora	white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Asteraceae - Pentachaeta bellidiflora
Plants - Vascular	Pentachaeta bellidiflora	white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	-	1B.1	3712284	San Quentin	Mapped	Plants - Vascular - Asteraceae - Pentachaeta bellidiflora
Plants - Vascular	Senecio aphanactis	chaparral ragwort	PDAST8H060	None	None	-	2B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Asteraceae - Senecio aphanactis
Plants - Vascular	Stebbinsoseris decipiens	Santa Cruz microseris	PDAST6E050	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Asteraceae - Stebbinsoseris decipiens
Plants - Vascular	Symphyotrichum lentum	Suisun Marsh aster	PDASTE8470	None	None	-	1B.2	3712284	San Quentin	Mapped	Plants - Vascular - Asteraceae - Symphyotrichum lentum
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	3712283	Richmond	Mapped	Plants - Vascular - Boraginaceae - Amsinckia lunaris
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	3712282	Briones Valley	Mapped	Plants - Vascular - Boraginaceae - Amsinckia lunaris
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Boraginaceae - Amsinckia lunaris
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Boraginaceae - Amsinckia lunaris
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	3712273	Oakland West	Mapped	Plants - Vascular - Boraginaceae - Amsinckia lunaris
Plants - Vascular	Plagiobothrys chorisianus var. chorisianus	Choris' popcornflower	PDBOR0V061	None	None	-	1B.2	3712273	Oakland West	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys chorisianus var. chorisianus

Plants - Vascular	Plagiobothrys chorisianus var. chorisianus	Choris' popcornflower	PDBOR0V061	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys chorisianus var. chorisianus
Plants - Vascular	Plagiobothrys chorisianus var. chorisianus	Choris' popcornflower	PDBOR0V061	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys chorisianus var. chorisianus
Plants - Vascular	Plagiobothrys diffusus	San Francisco popcornflower	PDBOR0V080	None	Endangered	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys diffusus
Plants - Vascular	Plagiobothrys diffusus	San Francisco popcornflower	PDBOR0V080	None	Endangered	-	1B.1	3712272	Oakland East	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys diffusus
Plants - Vascular	Plagiobothrys glaber	hairless popcornflower	PDBOR0V0B0	None	None	-	1A	3712274	San Francisco North	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys glaber
Plants - Vascular	Plagiobothrys glaber	hairless popcornflower	PDBOR0V0B0	None	None	-	1A	3712284	San Quentin	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys glaber
Plants - Vascular	Arabis blepharophylla	coast rockcress	PDBRA06040	None	None	-	4.3	3712284	San Quentin	Unprocessed	Plants - Vascular - Brassicaceae - Arabis blepharophylla
Plants - Vascular	Arabis blepharophylla	coast rockcress	PDBRA06040	None	None	-	4.3	3712274	San Francisco North	Unprocessed	Plants - Vascular - Brassicaceae - Arabis blepharophylla
Plants - Vascular	Arabis blepharophylla	coast rockcress	PDBRA06040	None	None	-	4.3	3712264	San Francisco South	Unprocessed	Plants - Vascular - Brassicaceae - Arabis blepharophylla
Plants - Vascular	Erysimum franciscanum	San Francisco wallflower	PDBRA160A0	None	None	-	4.2	3712264	San Francisco South	Unprocessed	Plants - Vascular - Brassicaceae - Erysimum franciscanum
Plants - Vascular	Erysimum franciscanum	San Francisco wallflower	PDBRA160A0	None	None	-	4.2	3712274	San Francisco North	Unprocessed	Plants - Vascular - Brassicaceae - Erysimum franciscanum
Plants - Vascular	Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	PDBRA2G012	None	None	-	1B.2	3712262	San Leandro	Mapped	Plants - Vascular - Brassicaceae - Streptanthus albidus ssp. peramoenus
Plants - Vascular	Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	PDBRA2G012	None	None	-	1B.2	3712272	Oakland East	Mapped and Unprocessed	Plants - Vascular - Brassicaceae - Streptanthus albidus ssp. peramoenus
Plants - Vascular	Streptanthus glandulosus ssp. niger	Tiburon jewelflower	PDBRA2G0T0	Endangered	Endangered	-	1B.1	3712284	San Quentin	Mapped	Plants - Vascular - Brassicaceae - Streptanthus glandulosus ssp. niger
Plants - Vascular	Viburnum ellipticum	oval-leaved viburnum	PDCPR07080	None	None	-	2B.3	3712282	Briones Valley	Mapped	Plants - Vascular - Caprifoliaceae - Viburnum ellipticum
Plants - Vascular	Viburnum ellipticum	oval-leaved viburnum	PDCPR07080	None	None	-	2B.3	3712273	Oakland West	Mapped	Plants - Vascular - Caprifoliaceae - Viburnum ellipticum
Plants - Vascular	Arenaria paludicola	marsh sandwort	PDCAR040L0	Endangered	Endangered	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Caryophyllaceae - Arenaria paludicola
Plants - Vascular	Silene scouleri ssp. scouleri	Scouler's catchfly	PDCAR0U1MC	None	None	-	2B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Caryophyllaceae - Silene scouleri ssp. scouleri

Plants - Vascular	Silene verecunda ssp. verecunda	San Francisco campion	PDCAR0U213	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Caryophyllaceae - Silene verecunda ssp. verecunda
Plants - Vascular	Silene verecunda ssp. verecunda	San Francisco campion	PDCAR0U213	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Caryophyllaceae - Silene verecunda ssp. verecunda
Plants - Vascular	Spergularia macrotheca var. longistyla	long-styled sand-spurrey	PDCAR0W062	None	None	-	1B.2	3712282	Briones Valley	Mapped	Plants - Vascular - Caryophyllaceae - Spergularia macrotheca var. longistyla
Plants - Vascular	Spergularia macrotheca var. longistyla	long-styled sand-spurrey	PDCAR0W062	None	None	-	1B.2	3712283	Richmond	Mapped	Plants - Vascular - Caryophyllaceae - Spergularia macrotheca var. longistyla
Plants - Vascular	Spergularia macrotheca var. longistyla	long-styled sand-spurrey	PDCAR0W062	None	None	-	1B.2	3712284	San Quentin	Mapped	Plants - Vascular - Caryophyllaceae - Spergularia macrotheca var. longistyla
Plants - Vascular	Spergularia macrotheca var. longistyla	long-styled sand-spurrey	PDCAR0W062	None	None	-	1B.2	3712262	San Leandro	Mapped	Plants - Vascular - Caryophyllaceae - Spergularia macrotheca var. longistyla
Plants - Vascular	Extriplex joaquinana	San Joaquin spearscale	PDCHE041F3	None	None	-	1B.2	3712273	Oakland West	Mapped	Plants - Vascular - Chenopodiaceae - Extriplex joaquinana
Plants - Vascular	Suaeda californica	California seablite	PDCHE0P020	Endangered	None	-	1B.1	3712273	Oakland West	Mapped	Plants - Vascular - Chenopodiaceae - Suaeda californica
Plants - Vascular	Suaeda californica	California seablite	PDCHE0P020	Endangered	None	-	1B.1	3712262	San Leandro	Mapped	Plants - Vascular - Chenopodiaceae - Suaeda californica
Plants - Vascular	Suaeda californica	California seablite	PDCHE0P020	Endangered	None	-	1B.1	3712263	Hunters Point	Mapped	Plants - Vascular - Chenopodiaceae - Suaeda californica
Plants - Vascular	Suaeda californica	California seablite	PDCHE0P020	Endangered	None	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Chenopodiaceae - Suaeda californica
Plants - Vascular	Suaeda californica	California seablite	PDCHE0P020	Endangered	None	-	1B.1	3712283	Richmond	Mapped	Plants - Vascular - Chenopodiaceae - Suaeda californica
Plants - Vascular	Calystegia purpurata ssp. saxicola	coastal bluff morning-glory	PDCON040D2	None	None	-	1B.2	3712283	Richmond	Mapped	Plants - Vascular - Convolvulaceae - Calystegia purpurata ssp. saxicola
Plants - Vascular	Carex comosa	bristly sedge	PMCYP032Y0	None	None	-	2B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Cyperaceae - Carex comosa
Plants - Vascular	Carex comosa	bristly sedge	PMCYP032Y0	None	None	-	2B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Cyperaceae - Carex comosa
Plants - Vascular	Carex comosa	bristly sedge	PMCYP032Y0	None	None	-	2B.1	3712263	Hunters Point	Mapped	Plants - Vascular - Cyperaceae - Carex comosa
Plants - Vascular	Carex comosa	bristly sedge	PMCYP032Y0	None	None	-	2B.1	3712273	Oakland West	Mapped	Plants - Vascular - Cyperaceae - Carex comosa
Plants - Vascular	Carex praticola	northern meadow sedge	PMCYP03B20	None	None	-	2B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Cyperaceae - Carex praticola
Plants - Vascular	Equisetum palustre	marsh horsetail	PPEQU01050	None	None	-	3	3712274	San Francisco North	Unprocessed	Plants - Vascular - Equisetaceae - Equisetum palustre
Plants - Vascular	Arctostaphylos franciscana	Franciscan manzanita	PDERI040J3	Endangered	None	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos franciscana

Plants - Vascular	Arctostaphylos franciscana	Franciscan manzanita	PDERI040J3	Endangered	None	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos franciscana
Plants - Vascular	Arctostaphylos imbricata	San Bruno Mountain manzanita	PDERI040L0	None	Endangered	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos imbricata
Plants - Vascular	Arctostaphylos montana ssp. ravenii	Presidio manzanita	PDERI040J2	Endangered	Endangered	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos montana ssp. ravenii
Plants - Vascular	Arctostaphylos montana ssp. ravenii	Presidio manzanita	PDERI040J2	Endangered	Endangered	-	1B.1	3712274	San Francisco North	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos montana ssp. ravenii
Plants - Vascular	Arctostaphylos montaraensis	Montara manzanita	PDERI042W0	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos montaraensis
Plants - Vascular	Arctostaphylos pacifica	Pacific manzanita	PDERI040Z0	None	Endangered	-	1B.1	3712264	San Francisco South	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos pacifica
Plants - Vascular	Arctostaphylos pallida	pallid manzanita	PDERI04110	Threatened	Endangered	-	1B.1	3712272	Oakland East	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos pallida
Plants - Vascular	Arctostaphylos pallida	pallid manzanita	PDERI04110	Threatened	Endangered	-	1B.1	3712283	Richmond	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos pallida
Plants - Vascular	Arctostaphylos pallida	pallid manzanita	PDERI04110	Threatened	Endangered	-	1B.1	3712282	Briones Valley	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos pallida
Plants - Vascular	Amorpha californica var. napensis	Napa false indigo	PDFAB08012	None	None	-	1B.2	3712284	San Quentin	Mapped	Plants - Vascular - Fabaceae - Amorpha californica var. napensis
Plants - Vascular	Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	PDFAB0F641	None	None	-	4.2	3712274	San Francisco North	Unprocessed	Plants - Vascular - Fabaceae - Astragalus nuttallii var. nuttallii
Plants - Vascular	Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	PDFAB0F641	None	None	-	4.2	3712264	San Francisco South	Unprocessed	Plants - Vascular - Fabaceae - Astragalus nuttallii var. nuttallii
Plants - Vascular	Astragalus tener var. tener	alkali milk-vetch	PDFAB0F8R1	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Fabaceae - Astragalus tener var. tener
Plants - Vascular	Astragalus tener var. tener	alkali milk-vetch	PDFAB0F8R1	None	None	-	1B.2	3712262	San Leandro	Mapped	Plants - Vascular - Fabaceae - Astragalus tener var. tener
Plants - Vascular	Astragalus tener var. tener	alkali milk-vetch	PDFAB0F8R1	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Fabaceae - Astragalus tener var. tener
Plants - Vascular	Astragalus tener var. tener	alkali milk-vetch	PDFAB0F8R1	None	None	-	1B.2	3712273	Oakland West	Mapped	Plants - Vascular - Fabaceae - Astragalus tener var. tener
Plants - Vascular	Astragalus tener var. tener	alkali milk-vetch	PDFAB0F8R1	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Fabaceae - Astragalus tener var. tener
Plants - Vascular	Astragalus tener var. tener	alkali milk-vetch	PDFAB0F8R1	None	None	-	1B.2	3712283	Richmond	Mapped	Plants - Vascular - Fabaceae - Astragalus tener var. tener

Plants - Vascular	Hoita strobilina	Loma Prieta hoita	PDFAB5Z030	None	None	-	1B.1	3712283	Richmond	Mapped	Plants - Vascular - Fabaceae - Hoita strobilina
Plants - Vascular	Hoita strobilina	Loma Prieta hoita	PDFAB5Z030	None	None	-	1B.1	3712272	Oakland East	Mapped	Plants - Vascular - Fabaceae - Hoita strobilina
Plants - Vascular	Hoita strobilina	Loma Prieta hoita	PDFAB5Z030	None	None	-	1B.1	3712262	San Leandro	Mapped	Plants - Vascular - Fabaceae - Hoita strobilina
Plants - Vascular	Hosackia gracilis	harlequin lotus	PDFAB2A0D0	None	None	-	4.2	3712264	San Francisco South	Unprocessed	Plants - Vascular - Fabaceae - Hosackia gracilis
Plants - Vascular	Hosackia gracilis	harlequin lotus	PDFAB2A0D0	None	None	-	4.2	3712274	San Francisco North	Unprocessed	Plants - Vascular - Fabaceae - Hosackia gracilis
Plants - Vascular	Trifolium amoenum	two-fork clover	PDFAB40040	Endangered	None	-	1B.1	3712284	San Quentin	Mapped	Plants - Vascular - Fabaceae - Trifolium amoenum
Plants - Vascular	Trifolium amoenum	two-fork clover	PDFAB40040	Endangered	None	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Fabaceae - Trifolium amoenum
Plants - Vascular	Trifolium hydrophilum	saline clover	PDFAB400R5	None	None	-	1B.2	3712262	San Leandro	Mapped	Plants - Vascular - Fabaceae - Trifolium hydrophilum
Plants - Vascular	Trifolium hydrophilum	saline clover	PDFAB400R5	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Fabaceae - Trifolium hydrophilum
Plants - Vascular	Trifolium hydrophilum	saline clover	PDFAB400R5	None	None	-	1B.2	3712273	Oakland West	Mapped	Plants - Vascular - Fabaceae - Trifolium hydrophilum
Plants - Vascular	Trifolium hydrophilum	saline clover	PDFAB400R5	None	None	-	1B.2	3712284	San Quentin	Mapped	Plants - Vascular - Fabaceae - Trifolium hydrophilum
Plants - Vascular	Trifolium hydrophilum	saline clover	PDFAB400R5	None	None	-	1B.2	3712283	Richmond	Mapped	Plants - Vascular - Fabaceae - Trifolium hydrophilum
Plants - Vascular	Iris longipetala	coast iris	PMIRI092E0	None	None	-	4.2	3712282	Briones Valley	Unprocessed	Plants - Vascular - Iridaceae - Iris longipetala
Plants - Vascular	Iris longipetala	coast iris	PMIRI092E0	None	None	-	4.2	3712284	San Quentin	Unprocessed	Plants - Vascular - Iridaceae - Iris longipetala
Plants - Vascular	Iris longipetala	coast iris	PMIRI092E0	None	None	-	4.2	3712283	Richmond	Unprocessed	Plants - Vascular - Iridaceae - Iris longipetala
Plants - Vascular	Iris longipetala	coast iris	PMIRI092E0	None	None	-	4.2	3712274	San Francisco North	Unprocessed	Plants - Vascular - Iridaceae - Iris longipetala
Plants - Vascular	Iris longipetala	coast iris	PMIRI092E0	None	None	-	4.2	3712264	San Francisco South	Unprocessed	Plants - Vascular - Iridaceae - Iris longipetala
Plants - Vascular	Juglans californica	southern California black walnut	PDJUG02020	None	None	-	4.2	3712282	Briones Valley	Unprocessed	Plants - Vascular - Juglandaceae - Juglans californica
Plants - Vascular	Monardella sinuata ssp. nigrescens	northern curly-leaved monardella	PDLAM18162	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Lamiaceae - Monardella sinuata ssp. nigrescens
Plants - Vascular	Calochortus pulchellus	Mt. Diablo fairy-lantern	PMLIL0D160	None	None	-	1B.2	3712282	Briones Valley	Mapped and Unprocessed	Plants - Vascular - Liliaceae - Calochortus pulchellus
Plants - Vascular	Calochortus tiburonensis	Tiburon mariposa-lily	PMLIL0D1C0	Threatened	Threatened	-	1B.1	3712284	San Quentin	Mapped and Unprocessed	Plants - Vascular - Liliaceae - Calochortus tiburonensis

Plants - Vascular	Calochortus umbellatus	Oakland star-tulip	PMLIL0D1E0	None	None	-	4.2	3712284	San Quentin	Unprocessed	Plants - Vascular - Liliaceae - Calochortus umbellatus
Plants - Vascular	Calochortus umbellatus	Oakland star-tulip	PMLIL0D1E0	None	None	-	4.2	3712283	Richmond	Unprocessed	Plants - Vascular - Liliaceae - Calochortus umbellatus
Plants - Vascular	Calochortus umbellatus	Oakland star-tulip	PMLIL0D1E0	None	None	-	4.2	3712282	Briones Valley	Unprocessed	Plants - Vascular - Liliaceae - Calochortus umbellatus
Plants - Vascular	Calochortus umbellatus	Oakland star-tulip	PMLIL0D1E0	None	None	-	4.2	3712272	Oakland East	Unprocessed	Plants - Vascular - Liliaceae - Calochortus umbellatus
Plants - Vascular	Fritillaria liliacea	fragrant fritillary	PMLIL0V0C0	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Liliaceae - Fritillaria liliacea
Plants - Vascular	Fritillaria liliacea	fragrant fritillary	PMLIL0V0C0	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Liliaceae - Fritillaria liliacea
Plants - Vascular	Fritillaria liliacea	fragrant fritillary	PMLIL0V0C0	None	None	-	1B.2	3712283	Richmond	Mapped	Plants - Vascular - Liliaceae - Fritillaria liliacea
Plants - Vascular	Fritillaria liliacea	fragrant fritillary	PMLIL0V0C0	None	None	-	1B.2	3712284	San Quentin	Mapped	Plants - Vascular - Liliaceae - Fritillaria liliacea
Plants - Vascular	Fritillaria liliacea	fragrant fritillary	PMLIL0V0C0	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Liliaceae - Fritillaria liliacea
Plants - Vascular	Hesperolinon congestum	Marin western flax	PDLIN01060	Threatened	Threatened	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Linaceae - Hesperolinon congestum
Plants - Vascular	Hesperolinon congestum	Marin western flax	PDLIN01060	Threatened	Threatened	-	1B.1	3712284	San Quentin	Mapped and Unprocessed	Plants - Vascular - Linaceae - Hesperolinon congestum
Plants - Vascular	Malacothamnus arcuatus	arcuate bush-mallow	PDMAL0Q0E0	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Malvaceae - Malacothamnus arcuatus
Plants - Vascular	Clarkia concinna ssp. automixa	Santa Clara red ribbons	PDONA050A1	None	None	-	4.3	3712272	Oakland East	Mapped	Plants - Vascular - Onagraceae - Clarkia concinna ssp. automixa
Plants - Vascular	Clarkia franciscana	Presidio clarkia	PDONA050H0	Endangered	Endangered	-	1B.1	3712272	Oakland East	Mapped and Unprocessed	Plants - Vascular - Onagraceae - Clarkia franciscana
Plants - Vascular	Clarkia franciscana	Presidio clarkia	PDONA050H0	Endangered	Endangered	-	1B.1	3712274	San Francisco North	Mapped and Unprocessed	Plants - Vascular - Onagraceae - Clarkia franciscana
Plants - Vascular	Piperia michaelii	Michael's rein orchid	PMORC1X110	None	None	-	4.2	3712284	San Quentin	Unprocessed	Plants - Vascular - Orchidaceae - Piperia michaelii
Plants - Vascular	Castilleja affinis var. neglecta	Tiburon paintbrush	PDSCR0D013	Endangered	Threatened	-	1B.2	3712284	San Quentin	Mapped	Plants - Vascular - Orobanchaceae - Castilleja affinis var. neglecta
Plants - Vascular	Castilleja ambigua var. ambigua	johnny-nip	PDSCR0D401	None	None	-	4.2	3712284	San Quentin	Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja ambigua var. ambigua
Plants - Vascular	Castilleja ambigua var. ambigua	johnny-nip	PDSCR0D401	None	None	-	4.2	3712282	Briones Valley	Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja ambigua var. ambigua
Plants - Vascular	Castilleja ambigua var. ambigua	johnny-nip	PDSCR0D401	None	None	-	4.2	3712274	San Francisco North	Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja ambigua var. ambigua

Plants - Vascular	Castilleja ambigua var. ambigua	johnny-nip	PDSCR0D401	None	None	-	4.2	3712272	Oakland East	Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja ambigua var. ambigua
Plants - Vascular	Castilleja ambigua var. ambigua	johnny-nip	PDSCR0D401	None	None	-	4.2	3712273	Oakland West	Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja ambigua var. ambigua
Plants - Vascular	Castilleja ambigua var. ambigua	johnny-nip	PDSCR0D401	None	None	-	4.2	3712262	San Leandro	Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja ambigua var. ambigua
Plants - Vascular	Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	3712262	San Leandro	Mapped	Plants - Vascular - Orobanchaceae - Chloropyron maritimum ssp. palustre
Plants - Vascular	Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	3712273	Oakland West	Mapped	Plants - Vascular - Orobanchaceae - Chloropyron maritimum ssp. palustre
Plants - Vascular	Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Orobanchaceae - Chloropyron maritimum ssp. palustre
Plants - Vascular	Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Orobanchaceae - Chloropyron maritimum ssp. palustre
Plants - Vascular	Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	3712284	San Quentin	Mapped	Plants - Vascular - Orobanchaceae - Chloropyron maritimum ssp. palustre
Plants - Vascular	Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	-	1B.2	3712283	Richmond	Mapped	Plants - Vascular - Orobanchaceae - Chloropyron maritimum ssp. palustre
Plants - Vascular	Triphysaria floribunda	San Francisco owl's-clover	PDSCR2T010	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Orobanchaceae - Triphysaria floribunda
Plants - Vascular	Triphysaria floribunda	San Francisco owl's-clover	PDSCR2T010	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Orobanchaceae - Triphysaria floribunda
Plants - Vascular	Triphysaria floribunda	San Francisco owl's-clover	PDSCR2T010	None	None	-	1B.2	3712263	Hunters Point	Mapped	Plants - Vascular - Orobanchaceae - Triphysaria floribunda
Plants - Vascular	Meconella oregana	Oregon meconella	PDPAP0G030	None	None	-	1B.1	3712272	Oakland East	Mapped	Plants - Vascular - Papaveraceae - Meconella oregana
Plants - Vascular	Meconella oregana	Oregon meconella	PDPAP0G030	None	None	-	1B.1	3712282	Briones Valley	Mapped	Plants - Vascular - Papaveraceae - Meconella oregana
Plants - Vascular	Erythranthe laciniata	cut-leaved monkeyflower	PDSCR1B1L0	None	None	-	4.3	3712282	Briones Valley	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe laciniata
Plants - Vascular	Erythranthe laciniata	cut-leaved monkeyflower	PDSCR1B1L0	None	None	-	4.3	3712283	Richmond	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe laciniata
Plants - Vascular	Erythranthe laciniata	cut-leaved monkeyflower	PDSCR1B1L0	None	None	-	4.3	3712272	Oakland East	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe laciniata
Plants - Vascular	Erythranthe laciniata	cut-leaved monkeyflower	PDSCR1B1L0	None	None	-	4.3	3712273	Oakland West	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe laciniata

Plants - Vascular	Erythranthe nudata	bare monkeyflower	PDSCR1B200	None	None	-	4.3	3712284	San Quentin	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe nudata
Plants - Vascular	Collinsia corymbosa	round-headed Chinese-houses	PDSCR0H060	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Plantaginaceae - Collinsia corymbosa
Plants - Vascular	Collinsia corymbosa	round-headed Chinese-houses	PDSCR0H060	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Plantaginaceae - Collinsia corymbosa
Plants - Vascular	Collinsia multicolor	San Francisco collinsia	PDSCR0H0B0	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Plantaginaceae - Collinsia multicolor
Plants - Vascular	Collinsia multicolor	San Francisco collinsia	PDSCR0H0B0	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Plantaginaceae - Collinsia multicolor
Plants - Vascular	Calamagrostis ophitidis	serpentine reed grass	PMPOA170V0	None	None	-	4.3	3712284	San Quentin	Unprocessed	Plants - Vascular - Poaceae - Calamagrostis ophitidis
Plants - Vascular	Collomia diversifolia	serpentine collomia	PDPLM02020	None	None	-	4.3	3712284	San Quentin	Unprocessed	Plants - Vascular - Polemoniaceae - Collomia diversifolia
Plants - Vascular	Gilia capitata ssp. chamissonis	blue coast gilia	PDPLM040B3	None	None	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Polemoniaceae - Gilia capitata ssp. chamissonis
Plants - Vascular	Gilia capitata ssp. chamissonis	blue coast gilia	PDPLM040B3	None	None	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Polemoniaceae - Gilia capitata ssp. chamissonis
Plants - Vascular	Gilia capitata ssp. chamissonis	blue coast gilia	PDPLM040B3	None	None	-	1B.1	3712273	Oakland West	Mapped	Plants - Vascular - Polemoniaceae - Gilia capitata ssp. chamissonis
Plants - Vascular	Gilia millefoliata	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	3712273	Oakland West	Mapped	Plants - Vascular - Polemoniaceae - Gilia millefoliata
Plants - Vascular	Gilia millefoliata	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Polemoniaceae - Gilia millefoliata
Plants - Vascular	Gilia millefoliata	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Polemoniaceae - Gilia millefoliata
Plants - Vascular	Gilia millefoliata	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	3712262	San Leandro	Mapped	Plants - Vascular - Polemoniaceae - Gilia millefoliata
Plants - Vascular	Gilia millefoliata	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	3712263	Hunters Point	Mapped	Plants - Vascular - Polemoniaceae - Gilia millefoliata
Plants - Vascular	Gilia millefoliata	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Polemoniaceae - Gilia millefoliata
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3712283	Richmond	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3712272	Oakland East	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon ambiguus	serpentine leptosiphon	PDPLM09020	None	None	-	4.2	3712264	San Francisco South	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon ambiguus
Plants - Vascular	Leptosiphon grandiflorus	large-flowered leptosiphon	PDPLM090K0	None	None	-	4.2	3712264	San Francisco South	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon grandiflorus
Plants - Vascular	Leptosiphon grandiflorus	large-flowered leptosiphon	PDPLM090K0	None	None	-	4.2	3712272	Oakland East	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon grandiflorus

Plants - Vascular	Leptosiphon grandiflorus	large-flowered leptosiphon	PDPLM090K0	None	None	-	4.2	3712273	Oakland West	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon grandiflorus
Plants - Vascular	Leptosiphon grandiflorus	large-flowered leptosiphon	PDPLM090K0	None	None	-	4.2	3712283	Richmond	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon grandiflorus
Plants - Vascular	Leptosiphon grandiflorus	large-flowered leptosiphon	PDPLM090K0	None	None	-	4.2	3712274	San Francisco North	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon grandiflorus
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3712274	San Francisco North	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon latisectus
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3712264	San Francisco South	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon latisectus
Plants - Vascular	Leptosiphon rosaceus	rose leptosiphon	PDPLM09180	None	None	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Polemoniaceae - Leptosiphon rosaceus
Plants - Vascular	Leptosiphon rosaceus	rose leptosiphon	PDPLM09180	None	None	-	1B.1	3712263	Hunters Point	Mapped	Plants - Vascular - Polemoniaceae - Leptosiphon rosaceus
Plants - Vascular	Leptosiphon rosaceus	rose leptosiphon	PDPLM09180	None	None	-	1B.1	3712273	Oakland West	Mapped	Plants - Vascular - Polemoniaceae - Leptosiphon rosaceus
Plants - Vascular	Leptosiphon rosaceus	rose leptosiphon	PDPLM09180	None	None	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Polemoniaceae - Leptosiphon rosaceus
Plants - Vascular	Polemonium carneum	Oregon polemonium	PDPLM0E050	None	None	-	2B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Polemoniaceae - Polemonium carneum
Plants - Vascular	Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	PDPGN04081	None	None	-	1B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe cuspidata var. cuspidata
Plants - Vascular	Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	PDPGN04081	None	None	-	1B.2	3712273	Oakland West	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe cuspidata var. cuspidata
Plants - Vascular	Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	PDPGN04081	None	None	-	1B.2	3712264	San Francisco South	Mapped and Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe cuspidata var. cuspidata
Plants - Vascular	Chorizanthe robusta var. robusta	robust spineflower	PDPGN040Q2	Endangered	None	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe robusta var. robusta
Plants - Vascular	Chorizanthe robusta var. robusta	robust spineflower	PDPGN040Q2	Endangered	None	-	1B.1	3712262	San Leandro	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe robusta var. robusta
Plants - Vascular	Chorizanthe robusta var. robusta	robust spineflower	PDPGN040Q2	Endangered	None	-	1B.1	3712273	Oakland West	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe robusta var. robusta
Plants - Vascular	Chorizanthe robusta var. robusta	robust spineflower	PDPGN040Q2	Endangered	None	-	1B.1	3712272	Oakland East	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe robusta var. robusta

Plants - Vascular	Eriogonum luteolum var. caninum	Tiburon buckwheat	PDPGN083S1	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Polygonaceae - Eriogonum luteolum var. caninum
Plants - Vascular	Eriogonum luteolum var. caninum	Tiburon buckwheat	PDPGN083S1	None	None	-	1B.2	3712284	San Quentin	Mapped	Plants - Vascular - Polygonaceae - Eriogonum luteolum var. caninum
Plants - Vascular	Polygonum marinense	Marin knotweed	PDPGN0L1C0	None	None	-	3.1	3712272	Oakland East	Mapped	Plants - Vascular - Polygonaceae - Polygonum marinense
Plants - Vascular	Polygonum marinense	Marin knotweed	PDPGN0L1C0	None	None	-	3.1	3712273	Oakland West	Mapped	Plants - Vascular - Polygonaceae - Polygonum marinense
Plants - Vascular	Polygonum marinense	Marin knotweed	PDPGN0L1C0	None	None	-	3.1	3712262	San Leandro	Mapped	Plants - Vascular - Polygonaceae - Polygonum marinense
Plants - Vascular	Polygonum marinense	Marin knotweed	PDPGN0L1C0	None	None	-	3.1	3712263	Hunters Point	Mapped	Plants - Vascular - Polygonaceae - Polygonum marinense
Plants - Vascular	Heteranthera dubia	water star-grass	PMPON03010	None	None	-	2B.2	3712263	Hunters Point	Mapped	Plants - Vascular - Pontederiaceae - Heteranthera dubia
Plants - Vascular	Heteranthera dubia	water star-grass	PMPON03010	None	None	-	2B.2	3712273	Oakland West	Mapped	Plants - Vascular - Pontederiaceae - Heteranthera dubia
Plants - Vascular	Heteranthera dubia	water star-grass	PMPON03010	None	None	-	2B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Pontederiaceae - Heteranthera dubia
Plants - Vascular	Heteranthera dubia	water star-grass	PMPON03010	None	None	-	2B.2	3712274	San Francisco North	Mapped	Plants - Vascular - Pontederiaceae - Heteranthera dubia
Plants - Vascular	Stuckenia filiformis ssp. alpina	slender-leaved pondweed	PMPOT03091	None	None	-	2B.2	3712272	Oakland East	Mapped	Plants - Vascular - Potamogetonaceae - Stuckenia filiformis ssp. alpina
Plants - Vascular	Androsace elongata ssp. acuta	California androsace	PDPRI02031	None	None	-	4.2	3712282	Briones Valley	Unprocessed	Plants - Vascular - Primulaceae - Androsace elongata ssp. acuta
Plants - Vascular	Aspidotis carlotta-halliae	Carlotta Hall's lace fern	PPADI07020	None	None	-	4.2	3712284	San Quentin	Unprocessed	Plants - Vascular - Pteridaceae - Aspidotis carlotta-halliae
Plants - Vascular	Aspidotis carlotta-halliae	Carlotta Hall's lace fern	PPADI07020	None	None	-	4.2	3712274	San Francisco North	Unprocessed	Plants - Vascular - Pteridaceae - Aspidotis carlotta-halliae
Plants - Vascular	Ranunculus lobbii	Lobb's aquatic buttercup	PDRAN0L1J0	None	None	-	4.2	3712282	Briones Valley	Unprocessed	Plants - Vascular - Ranunculaceae - Ranunculus lobbii
Plants - Vascular	Ranunculus lobbii	Lobb's aquatic buttercup	PDRAN0L1J0	None	None	-	4.2	3712283	Richmond	Unprocessed	Plants - Vascular - Ranunculaceae - Ranunculus lobbii
Plants - Vascular	Horkelia cuneata var. sericea	Kellogg's horkelia	PDROS0W043	None	None	-	1B.1	3712274	San Francisco North	Mapped	Plants - Vascular - Rosaceae - Horkelia cuneata var. sericea
Plants - Vascular	Horkelia cuneata var. sericea	Kellogg's horkelia	PDROS0W043	None	None	-	1B.1	3712273	Oakland West	Mapped	Plants - Vascular - Rosaceae - Horkelia cuneata var. sericea
Plants - Vascular	Horkelia cuneata var. sericea	Kellogg's horkelia	PDROS0W043	None	None	-	1B.1	3712272	Oakland East	Mapped	Plants - Vascular - Rosaceae - Horkelia cuneata var. sericea
Plants - Vascular	Horkelia cuneata var. sericea	Kellogg's horkelia	PDROS0W043	None	None	-	1B.1	3712262	San Leandro	Mapped	Plants - Vascular - Rosaceae - Horkelia cuneata var. sericea

Plants - Vascular	Horkelia cuneata var. sericea	Kellogg's horkelia	PDROS0W043	None	None	-	1B.1	3712264	San Francisco South	Mapped	Plants - Vascular - Rosaceae - Horkelia cuneata var. sericea
Plants - Vascular	Horkelia marinensis	Point Reyes horkelia	PDROS0W0B0	None	None	-	1B.2	3712264	San Francisco South	Mapped	Plants - Vascular - Rosaceae - Horkelia marinensis
Plants - Vascular	Dirca occidentalis	western leatherwood	PDTHY03010	None	None	-	1B.2	3712272	Oakland East	Mapped	Plants - Vascular - Thymelaeaceae - Dirca occidentalis
Plants - Vascular	Dirca occidentalis	western leatherwood	PDTHY03010	None	None	-	1B.2	3712282	Briones Valley	Mapped	Plants - Vascular - Thymelaeaceae - Dirca occidentalis
Plants - Vascular	Dirca occidentalis	western leatherwood	PDTHY03010	None	None	-	1B.2	3712283	Richmond	Mapped	Plants - Vascular - Thymelaeaceae - Dirca occidentalis

CNPS California Native Plant Society

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

95 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3712284, 3712283, 3712282, 3712274, 3712273, 3712272, 3712264 3712263 and 3712262;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S3	G3
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4	G5?T3T4
Arabis blepharophylla	coast rockcress	Brassicaceae	perennial herb	Feb-May	4.3	S4	G4
Arctostaphylos franciscana	Franciscan manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr	1B.1	S1	G1
Arctostaphylos imbricata	San Bruno Mountain manzanita	Ericaceae	perennial evergreen shrub	Feb-May	1B.1	S1	G1
Arctostaphylos montana ssp. ravenii	Presidio manzanita	Ericaceae	perennial evergreen shrub	Feb-Mar	1B.1	S1	G3T1
Arctostaphylos montaraensis	Montara manzanita	Ericaceae	perennial evergreen shrub	Jan-Mar	1B.2	S1	G1
Arctostaphylos pacifica	Pacific manzanita	Ericaceae	evergreen shrub	Feb-Apr	1B.1	S1	G1
Arctostaphylos pallida	pallid manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	1B.1	S1	G1
Arenaria paludicola	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	May-Aug	1B.1	S1	G1
Aspidotis carlotta-halliae	Carlotta Hall's lace fern	Pteridaceae	perennial rhizomatous herb	Jan-Dec	4.2	S3	G3
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	Fabaceae	perennial herb	Jan-Nov	4.2	S4	G4T4
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S1	G2T1
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Calamagrostis ophitidis	serpentine reed grass	Poaceae	perennial herb	Apr-Jul	4.3	S3	G3

Calochortus pulchellus	Mt. Diablo fairy-lantern	Liliaceae	perennial bulbiferous herb	Apr-Jun	1B.2	S2	G2
Calochortus tiburonensis	Tiburon mariposa lily	Liliaceae	perennial bulbiferous herb	Mar-Jun	1B.1	S1	G1
Calochortus umbellatus	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	Mar-May	4.2	S3?	G3?
Calystegia purpurata ssp. saxicola	coastal bluff morning-glory	Convolvulaceae	perennial herb	(Mar)Apr-Sep	1B.2	S2S3	G4T2T3
Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	2B.1	S2	G5
Carex praticola	northern meadow sedge	Cyperaceae	perennial herb	May-Jul	2B.2	S2	G5
Castilleja affinis var. neglecta	Tiburon paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Apr-Jun	1B.2	S1S2	G4G5T1T2
Castilleja ambigua var. ambigua	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	4.2	S3S4	G4T4
Centromadia parryi ssp. congdonii	Congdon's tarplant	Asteraceae	annual herb	May-Oct(Nov)	1B.1	S1S2	G3T1T2
Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	annual herb	May-Nov	1B.2	S2	G3T2
Chloropyron maritimum ssp. palustre	Point Reyes bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	1B.2	S2	G4?T2
Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	Polygonaceae	annual herb	Apr-Jul(Aug)	1B.2	S1	G2T1
Chorizanthe robusta var. robusta	robust spineflower	Polygonaceae	annual herb	Apr-Sep	1B.1	S1	G2T1
Cirsium andrewsii	Franciscan thistle	Asteraceae	perennial herb	Mar-Jul	1B.2	S3	G3
Cirsium hydrophilum var. vaseyi	Mt. Tamalpais thistle	Asteraceae	perennial herb	May-Aug	1B.2	S1	G2T1
Cirsium occidentale var. compactum	compact cobwebby thistle	Asteraceae	perennial herb	Apr-Jun	1B.2	S2	G3G4T2
Clarkia concinna ssp. automixa	Santa Clara red ribbons	Onagraceae	annual herb	(Apr)May-Jun(Jul)	4.3	S3	G5?T3
Clarkia franciscana	Presidio clarkia	Onagraceae	annual herb	May-Jul	1B.1	S1	G1
Collinsia corymbosa	round-headed Chinese-houses	Plantaginaceae	annual herb	Apr-Jun	1B.2	S1	G1
Collinsia multicolor	San Francisco collinsia	Plantaginaceae	annual herb	(Feb)Mar-May	1B.2	S2	G2
Dirca occidentalis	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar(Apr)	1B.2	S2	G2
Equisetum palustre	marsh horsetail	Equisetaceae	perennial rhizomatous herb	unk	3	S1S3	G5
Eriogonum luteolum var. caninum	Tiburon buckwheat	Polygonaceae	annual herb	May-Sep	1B.2	S2	G5T2
Eriophorum gracile	slender cottongrass	Cyperaceae	perennial rhizomatous herb (emergent)	May-Sep	4.3	S4	G5
Eryngium jepsonii	Jepson's coyote thistle	Apiaceae	perennial herb	Apr-Aug	1B.2	S2?	G2?
Erysimum franciscanum	San Francisco wallflower	Brassicaceae	perennial herb	Mar-Jun	4.2	S3	G3

Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
Fissidens pauperculus	minute pocket moss	Fissidentaceae	moss		1B.2	S2	G3?
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2	G2
Gilia capitata ssp. chamissonis	blue coast gilia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G5T2
Gilia millefoliata	dark-eyed gilia	Polemoniaceae	annual herb	Apr-Jul	1B.2	S2	G2
Grindelia hirsutula var. maritima	San Francisco gumplant	Asteraceae	perennial herb	Jun-Sep	3.2	S1	G5T1Q
Helianthella castanea	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	1B.2	S2	G5T2
Hesperevax sparsiflora var. brevifolia	short-leaved evax	Asteraceae	annual herb	Mar-Jun	1B.2	S2	G4T3
Hesperolinon congestum	Marin western flax	Linaceae	annual herb	Apr-Jul	1B.1	S1	G1
Heteranthera dubia	water star-grass	Pontederiaceae	perennial herb (aquatic)	Jul-Oct	2B.2	S2	G5
Hoita strobilina	Loma Prieta hoita	Fabaceae	perennial herb	May-Jul(Aug-Oct)	1B.1	S2?	G2?
Holocarpha macradenia	Santa Cruz tarplant	Asteraceae	annual herb	Jun-Oct	1B.1	S1	G1
Horkelia cuneata var. sericea	Kellogg's horkelia	Rosaceae	perennial herb	Apr-Sep	1B.1	S1?	G4T1?
Horkelia marinensis	Point Reyes horkelia	Rosaceae	perennial herb	May-Sep	1B.2	S2	G2
Hypogymnia schizidiata	island rock lichen	Parmeliaceae	foliose lichen (null)		1B.3	S1	G2
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May	4.2	S3	G3
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G1
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	May-Jul(Aug-Sep)	1B.2	S2	G5T2
Layia carnosa	beach layia	Asteraceae	annual herb	Mar-Jul	1B.1	S2	G2
Leptosiphon acicularis	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	4.2	S4?	G4?
Leptosiphon rosaceus	rose leptosiphon	Polemoniaceae	annual herb	Apr-Jul	1B.1	S1	G1
Lessingia germanorum	San Francisco lessingia	Asteraceae	annual herb	(Jun)Jul-Nov	1B.1	S1	G1
Lessingia hololeuca	woolly-headed lessingia	Asteraceae	annual herb	Jun-Oct	3	S2S3	G3?
Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	perennial evergreen shrub	Apr-Sep	1B.2	S2	G2Q
Meconella oregana	Oregon meconella	Papaveraceae	annual herb	Mar-Apr	1B.1	S2	G2G3
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	annual herb	Mar-May	3.2	S3S4	G3G4
Microseris paludosa	marsh microseris	Asteraceae	perennial herb	Apr-Jun(Jul)	1B.2	S2	G2
Monardella antonina ssp. antonina	San Antonio Hills monardella	Lamiaceae	perennial rhizomatous herb	Jun-Aug	3	S1S3	G4T1T3Q

Monardella sinuata ssp. nigrescens	northern curly-leaved monardella	Lamiaceae	annual herb	(Apr)May-Jul(Aug-Sep)	1B.2	S2	G3T2
Monolopia gracilens	woodland woolythreads	Asteraceae	annual herb	(Feb)Mar-Jul	1B.2	S3	G3
Pentachaeta bellidiflora	white-rayed pentachaeta	Asteraceae	annual herb	Mar-May	1B.1	S1	G1
Piperia michaelii	Michael's rein orchid	Orchidaceae	perennial herb	Apr-Aug	4.2	S3	G3
Plagiobothrys chorisianus var. chorisianus	Choris' popcornflower	Boraginaceae	annual herb	Mar-Jun	1B.2	S1	G3T1Q
Plagiobothrys diffusus	San Francisco popcornflower	Boraginaceae	annual herb	Mar-Jun	1B.1	S1	G1Q
Polemonium carneum	Oregon polemonium	Polemoniaceae	perennial herb	Apr-Sep	2B.2	S2	G3G4
Polygonum marinense	Marin knotweed	Polygonaceae	annual herb	(Apr)May-Aug(Oct)	3.1	S2	G2Q
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	4.2	S3	G4
Sanicula maritima	adobe sanicle	Apiaceae	perennial herb	Feb-May	1B.1	S2	G2
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Silene scouleri ssp. scouleri	Scouler's catchfly	Caryophyllaceae	perennial herb	(Mar-May)Jun-Aug(Sep)	2B.2	S2S3	G5T4T5
Silene verecunda ssp. verecunda	San Francisco campion	Caryophyllaceae	perennial herb	(Feb)Mar-Jun(Aug)	1B.2	S1	G5T1
Spergularia macrotheca var. longistyla	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May(Jun)	1B.2	S2	G5T2
Stebbinsoseris decipiens	Santa Cruz microseris	Asteraceae	annual herb	Apr-May	1B.2	S2	G2
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	1B.2	S2	G2T2
Streptanthus glandulosus ssp. niger	Tiburon jewelflower	Brassicaceae	annual herb	May-Jun	1B.1	S1	G4T1
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S2S3	G5T5
Suaeda californica	California seablite	Chenopodiaceae	perennial evergreen shrub	Jul-Oct	1B.1	S1	G1
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	1B.2	S2	G2
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	Apr-Jun	1B.1	S1	G1
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2
Triphysaria floribunda	San Francisco owl's-clover	Orobanchaceae	annual herb	Apr-Jun	1B.2	S2?	G2?
Triquetrella californica	coastal triquetrella	Pottiaceae	moss		1B.2	S2	G2
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5

Suggested Citation

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Impacts Analyzed Y=Yes N=No	Rationale
Plants							
Allium peninsulare var. *franciscanum*	Franciscan onion	-	-	1B.2	Clay, volcanic, and often serpentinite soils in cismontane woodlands and valley and foothill grasslands. Elev: 70-1,000 ft (52-305 m). Blooms: Apr-Jun (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Amorpha californica var. *napensis*	Napa false indigo	-	-	1B.2	Chaparral, cismontane woodland, and openings in broadleafed forests. Elev: 390-6,565 ft (120-2,000 m.) Blooms: Apr-Jul (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Amsinckia lunaris	bent-flowered fiddleneck	-	-	1B.2	Coastal bluff scrub, cismontane woodland, valley & foothill grassland. Elev: 10-1,640 ft (3-500 m). Blooms: Mar-Jun (CNPS 2019).	N	Suitable habitat not present.
Arctostaphylos franciscana	Franciscan manzanita	FE	-	1B.1	Serpentinite soils in coastal scrub. Elev: 196-984 ft (60-300 m). Blooms: Feb-Apr. Single plant rediscovered in 2009 in northern San Francisco, previously considered extinct since 1947 (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Arctostaphylos imbricata	San Bruno manzanita	-	SE	1B.1	Rocky soils in chaparral and coastal scrub. Elev: 902-1,214 ft (275-370 m). Blooms: Feb-May. All occurrences are within the boundaries of the San Bruno Mountain Habitat Conservation Plan (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Arctostaphylos montana ssp. r*avenii*	Presidio manzanita	FE	SE	1B.1	Serpentinite outcrops in chaparral, coastal prairie, and coastal scrub habitats. Elev: 148-705 ft (45-215 m). Blooms: Feb-Mar. Known from only one extant native occurrence at the Presidio in San Francisco; five of six historical occurrences extirpated by urbanization (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Arctostaphylos montaraensis	Montara manzanita	-	-	1B.2	Maritime chaparral and coastal scrub. Elev: 262-1,640 ft (80-500 m). Blooms: Jan-Mar. Known from fewer than ten occurrences in San Mateo County (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Arctostaphylos pacifica	Pacific manzanita	-	SE	1B.1	Chaparral and coastal scrub habitats. Elev: undocumented. Blooms: Feb-Apr. Known only from San Bruno Mountain in San Mateo County (CNPS 2019).	N	Project outside known species range.
Arctostaphylos pallida	pallid manzanita	FT	SE	1B.1	Siliceous shale, sandy or gravelly soil. Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub. Elev: 607-1,526 ft (185-465 m) Blooms: Dec-Mar (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Arenaria paludicola	marsh sandwort	FE	SE	1B.1	Sandy openings in freshwater or brackish marshes and swamps. Elev: 10-558 ft (3-170 m). Blooms: May-Aug. Known from only two natural occurrences in Black Lake Canyon and at Oso Flaco Lake (CNPS 2019).	N	Project outside known species range.
Astragalus tener var. *tener*	alkali milk-vetch	-	-	1B.2	Alkaline soils. Playas, valley & foothill grassland (adobe clay), and vernal pools. Elev: 3-197 ft (1-60 m). Blooms: Mar-Jun (CNPS 2019).	N	Suitable habitat not present.
Balsamhoriza macrolepis	big-scale balsamroot	-	-	1B.2	Sometimes on serpentinite, in chaparral, cismontane woodland, and valley and foothill grasslands. Elev: 295-5,102 ft (90-1,555 m). Blooms: Mar-Jun (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Calochortus pulchellus	Mt. Diablo fairy-lantern	-	-	1B.2	Chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland. Elev: 98-2,756 ft (30-840 m). Blooms: Apr-Jun (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).

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Calochortus tiburonensis	Tiburon mariposa-lily	FT	FT	1B.1	Serpentinite soils in valley and foothill grassland habitats. Elev: 164-492 ft (50-150 m). Blooms: Mar-Jun. Known from only one occurrence at Ring Mountain Preserve on the Tiburon Peninsula (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Calystegia purpurata ssp. *saxicola*	coastal bluff morning-glory	-	-	1B.2	Coastal dunes, coastal scrub, north coast coniferous forest. Elev: 33-345 ft (10-105 m). Blooms: Mar-Sep (CNPS 2019).	N	Suitable habitat not present.
Carex comosa	bristly sedge	-	-	2B.1	Coastal prairies, valley and foothill grasslands, as well as marshes, swamps and lake margins. Elev: 0-2,051 ft (0-625 m). Blooms: May-Sep (CNPS 2019).	N	Suitable habitat not present.
Carex praticola	northern meadow sedge	-	-	2B.2	Mesic meadows and seeps. Elev: 0-10,500 ft (0-3,200 m). Blooms: May-Jul (CNPS 2019).	N	Suitable habitat not present.
Castilleja affinis ssp. neglecta	Tiburon paintbrush	FE	ST	1B.2	Serpentinite soil in valley and foothill grassland. Elev: 196-1,312 ft (60-400 m). Blooms: Apr-Jun (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Centromadia parryi ssp. *congdonii*	Congdon's tarplant	-	-	1B.1	Alkaline valley and foothill grasslands. Elev: 0-755 ft (0-230 m). Blooms: May-Nov (CNPS 2019).	N	Suitable habitat not present.
Centromadia parryi ssp. *parryi*	pappose tarplant	-	-	1B.2	Often in alkaline areas in chaparral, coastal prairie, meadows and seeps, coastal salt marshes and swamps, and vernally mesic valley and foothill grasslands. Elev: 0-1,378 ft (0-420 m). Blooms: May-Nov (CNPS 2019).	Y	Potentially suitable habitat present.
Chloropyron maritimum ssp. *palustre*	Point Reyes bird's-beak	-	-	1B.2	Coastal salt marshes & swamps. Elev: 0-33 ft (0-10 m). Blooms: Jun-Oct (CNPS 2019).	Y	Potentially suitable habitat present.
Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	-	-	1B.2	Sandy areas in coastal bluff scrub, coastal dunes, coastal prairies, and coastal scrub. Elev: 10-705 ft (3-215 m). Blooms: Apr-Aug (CNPS 2019).	N	Suitable habitat not present.
Chorizanthe robusta var. robusta	robust spineflower	FE	-	1B.1	Sandy or gravelly soils in maritime chaparral, coastal dunes, coastal scrub, and openings in cismontane woodland. Elev: 10-984 ft (3-300 m). Blooms: Apr-Sep (CNPS 2019).	N	Suitable habitat not present.
Cicuta maculata var. *bolanderi*	Bolander's water-hemlock	-	-	2.1	Coastal, fresh or brackish marshes and swamps. Elev: 0-656 ft (0-200 m). Blooms: Jul-Sep (CNPS 2019).	Y	Potentially suitable habitat present.
Cirsium andrewsii	Franciscan thistle	-	-	1B.2	Mesic, sometimes serpentinite soils. Broadleafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub. Elev: 0-492 ft (0-150 m). Blooms: Mar-Jul (CNPS 2019).	N	Suitable habitat not present.
Cirsium hydrophilum var. *vaseyi*	Mt. Tamalpais thistle	-	-	1B.2	Serpentinite seeps in broadleafed upland forest, chaparral, and meadows and seeps. Elev: 787-2,034 ft (240-620 m). Blooms: May-Aug. Known from fewer than twenty occurrences on Mt. Tamalpais (CNPS 2019).	N	Suitable habitat not present, site is below documented elevation range at 0-30 ft (0-9 m), and the Project is outside the known species range.
Cirsium occidentale var. *compactum*	compact cobwebby thistle	-	-	1B.2	Chaparral, coastal dunes, coastal prairie, coastal scrub. Elev: 16-492 ft (5-150 m). Blooms: Apr-Jun. Known from fewer than twenty occurrences in Los Angeles, Monterey, Santa Barbara, San Francisco (presumed extirpated), and San Luis Obispo counties (CNPS 2019).	N	Project outside known species range.
Clarkia franciscana	Presidio clarkia	FE	SE	1B.1	Coastal scrub and serpentinite valley and foothill grasslands. Elev: 82-1,099 ft (25-335 m). Blooms: May-Jul (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Collinsia corymbosa	round-headed Chinese-houses	-	-	1B.2	Coastal dunes. Elev: 0-66 ft (0-20 m). Blooms: Apr-Jun (CNPS 2019).	N	Suitable habitat not present.

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Collinsia multicolor	San Francisco collinsia	-	-	1B.2	Closed-cone coniferous forest and coastal scrub, sometimes associated with serpentinite soils. Elev: 100-825 ft (30-250 m). Blooms: Feb-May (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Dirca occidentalis	western leatherwood	-	-	1B.2	Mesic soils. Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland. Elev: 82-1,394 ft (25-425 m). Blooms: Jan-Apr (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Eriogonum luteolum var. caninum	Tiburon buckwheat	-	-	1B.2	Serpentinite, sandy or gravelly soils in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland. Elev: 0-2,297 ft (0-700 m). Blooms: May-Sep (CNPS 2014).	N	Suitable habitat not present.
Eryngium jepsonii	Jepson's coyote-thistle	-	-	1B.2	Clay soils in valley and foothill grasslands and vernal pools. Elev: 9-984 ft (3-300 m). Blooms: Apr-Aug (CNPS 2019).	N	Suitable habitat not present.
Extriplex joaquinana	San Joaquin spearscale	-	-	1B.2	Alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands. Elev: 3-2,755 ft (1-835 m). Blooms: Apr-Oct (CNPS 2019).	N	Suitable habitat not present.
Fissidens pauperculus	minute pocket moss	-	-	1B.2	Damp soils in stream beds and banks in North Coast coniferous forest. Has also been found inland in the Sierra Nevada foothills. Elev: 30-3,380 ft (10-1,024 m). (CNPS 2019).	N	Suitable habitat not present.
Fritillaria liliacea	fragrant fritillary	-	-	1B.2	Serpentinite soils in cismontane woodland, coastal prairie, coastal scrub, valley & foothill grassland. Elev: 10-1,345 ft (3-410 m). Blooms: Feb-Apr (CNPS 2019).	N	Suitable habitat not present.
Gilia capitata ssp. chamissonis	blue coast gilia	-	-	1B.1	Coastal dunes and coastal scrub. Elev: 7-656 ft (2-200 m). Blooms: Apr-Jul (CNPS 2019).	N	Suitable habitat not present.
Gilia millefoliata	dark-eyed gilia	-	-	1B.2	Coastal dunes. Elev: 5-100 ft (2-30 m). Blooms: Apr-Jul (CNPS 2019).	N	Suitable habitat not present.
Helianthella castanea	Diablo helianthella	-	-	1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland, broadleafed upland forest, and valley and foothill grasslands. Elev: 197-4,265 ft (60-1,300 m). Blooms: Mar-Jun (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Hemizonia congesta ssp. *congesta*	congested-headed hayfield tarplant	-	-	1B.2	Valley and foothill grasslands and sometimes roadsides. Elev: 67-1,837 ft (20-560 m). Blooms: Apr-Nov (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Hesperevax sparsifolia var. *brevifolia*	short-leaved evax	-	-	1B.2	Sandy coastal cliff scrub, coastal dunes, and coastal prairie. Elev:0-705 ft (0-215 m). Blooms: Mar-Jun (CNPS 2019).	N	Suitable habitat not present.
Hesperolinon congestum	Marin western flax	FT	ST	1B.1	Serpentinite soils in Chaparral and valley and foothill grassland habitats. Elev: 16-1,214 ft (5-370 m). Blooms: Apr-Jul (CNPS 2019).	N	Suitable habitat not present.
Heteranthera dubia	water star-grass	-	-	2B.2	Requires a pH of 7 or higher, usually in slightly eutrophic waters in alkaline, still, or slow-moving water in marshes and swamps. Elev: 98-4,905 ft (30-1,495 m). Blooms: Jul-Oct (CNPS 2019).	Y	Potentially suitable habitat present.
Hoita strobilina	Loma Prieta hoita	-	-	1B.1	Usually serpentinite, mesic soil in chaparral, cismontane woodland, riparian woodland. Elev: 98-2,822 ft (30-860 m). Blooms: May-Oct (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).

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Holocarpha macradenia	Santa Cruz tarplant	FT	SE	1B.1	Often clay or sandy soils in coastal prairie, coastal scrub, and valley/foothill grasslands. Elev: 33-722 ft (10-220 m). Blooms: Jun-Oct (CNPS 2019).	N	Suitable habitat not present.
Horkelia cuneata var. sericea	Kellog's horkelia	-	-	1B.1	Sandy or gravelly soils in openings in closed-cone coniferous forest, maritime chaparral, coastal dunes, coastal scrub. Elev: 33-656 ft (10-200 m). Blooms: Apr-Sep (CNPS 2019).	N	Suitable habitat not present.
Horkelia marinensis	Point Reyes horkelia	-	-	1B.2	Occurs in sandy coastal dunes, coastal prairie, and coastal scrub habitats. Elev: 15-2,477 ft (5-755 m). Blooms: May-Sep (CNPS 2019).	N	Suitable habitat not present.
Hypogymnia schizidiata	island rock lichen	-	-	1B.3	On bark and wood of hardwoods and conifers in closed-cone coniferous forest and chaparral. Elev: 1,180-1,330 ft (360-405 m). Blooms: data unavailable (CNPS 2019).	N	Suitable habitat not present.
Isocoma arguta	Carquinez goldenbush	-	-	1B.1	Alkaline valley and foothill grassland. Elev: 3-66 ft (1-20 m). Blooms: Aug-Dec (CNPS 2019).	N	Suitable habitat not present.
Lasthenia conjugens	Contra Costa goldfields	FE	-	1B.1	Mesic areas in vernal pools, cismontane woodland, alkaline playas, and valley and foothill grasslands. Elev: 0-1,542 ft (0-470 m). Blooms: Mar-Jun (CNPS 2019).	N	Suitable habitat not present.
Lathyrus jepsonii var. *jepsonii*	Delta tule pea	-	-	1B.2	Freshwater and brackish marshes and swamps. Elev: 0-13 ft (0-4 m). Blooms: May-Sep (CNPS 2019).	Y	Potentially suitable habitat present.
Layia carnosa	beach layia	FE	SE	1B.1	Coastal dunes and sandy coastal scrub. Elev: 0-197 ft (0-60 m). Blooms: Mar-Jul (CNPS 2019).	N	Suitable habitat not present.
Leptosiphon rosaceus	rose leptosiphon	-	-	1B.1	Coastal bluff scrub. Elev: 0-328 ft (0-100 m). Blooms: Apr-Jul (CNPS 2019).	N	Suitable habitat not present. S
Lessingia germanorum	San Francisco lessingia	FE	SE	1B.1	Coastal scrub/remnant dunes. Elev: 82-360 ft (25-110 m). Blooms: June-Nov. Known from only four occurrences at the Presidio in San Francisco County, and one on San Bruno Mountain (CNPS 2019).	N	Suitable habitat not present, site is below documented elevation range at 0-30 ft (0-9 m), and the Project is outside the known species range.
Malocothamnus arcuatus	arcuate bush-mallow	-	-	1B.2	Chaparral and cismontane woodland. Elev: 50-1,150 ft (15-335 m). Blooms: Apr-Sep (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Meconella oregana	Oregon meconella	-	-	1B.1	Coastal prairie and coastal scrub. Elev: 820-2,034 ft (250-620 m). Blooms: Mar-Apr (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Microseris paludosa	marsh microseris	-	-	1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland. Elev: 15-1,165 ft (5-355 m). Blooms: Apr-Jun (CNPS 2019).	N	Suitable habitat not present.
Monardella sinuata ssp. *nigrescens*	northern curly-leaved monardella	-	-	1B.2	Sandy soils in coastal dune, coastal scrub, and lower montane coniferous forest habitats throughout range. Also found in chaparral and ponderosa pine sandhills in Santa Cruz County. Elev: 0-984 ft (0-300 m). Blooms: Apr-Sep. Presumed extirpated from San Francisco County (CNPS 2019).	N	Project outside known species range. Not documented in Alameda County (CNPS 2019).
Monolopia gracilens	woodland woolythreads	-	-	1B.2	Serpentinite soil in chaparral openings, broadleafed upland forest openings, cismontane woodland, North Coast coniferous forest openings, and valley and foothill grassland. Elev: 328-3,937 ft (100-1,200 m). Blooms: Feb-Jul (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).

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Pentachaeta bellidiflora	white-rayed pentachaeta	FE	SE	1B.1	Cismontane woodlands and valley and foothill grasslands, often on serpentinite soils. Elev: 115-2,034 ft (35-620 m). Blooms: Mar-May. Presumed extirpated from Marin and Santa Cruz counties, with San Mateo containing the only known extant populations (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Plagiobothrys chorisianus var. *chorisianus*	Choris' popcorn-flower	-	-	1B.2	Mesic areas in chaparral, coastal prairie and coastal scrub. Elev: 49-525 ft (15-160 m). Blooms: Mar-Jun (CNPS 2019).	N	Suitable habitat not present.
Plagiobothrys diffusus	San Francisco popcorn-flower	-	SE	1B.1	Coastal prairie and valley and foothill grasslands. Elev: 197-1,181 ft (60-360 m). Blooms: Mar-Jun (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Polemonium carneum	Oregon polemonium	-	-	2B.2	Coastal prairie, coastal scrub, and lower montane coniferous forest. Elev: 0-6,004 ft (0-1830 m). Blooms: Apr-Sep (CNPS 2019).	N	Suitable habitat not present.
Sanicula maritima	adobe sanicle	-	SR	1B.1	Clay and serpentinite soils in chaparral, coastal prairie, meadows and seeps, and valley and foothill grassland. Elev: 98-787 ft (30-240 m). Blooms: Feb-May (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Senecio aphanactis	chaparral ragwort	-	-	2B.2	Sometimes alkaline in chaparral, cismontane woodland, and coastal scrub. Elev: 49-2,625 ft (15-800 m) Blooms: Jan-Apr (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Silene scouleri ssp. *scouleri*	Scouler's catchfly	-	-	2B.2	Coastal bluff scrub, coastal prairie, and valley and foothill grassland. Elev: 0-1,970 ft (0-600 m). Blooms: (Mar-May) Jun-Aug (Sep) (CNPS 2019).	N	Suitable habitat not present.
Silene verecunda ssp. verecunda	San Francisco campion	-	-	1B.2	Sandy soils in coastal bluff soil, chaparral, coastal prairies, coastal scrub, and valley and foothill grasslands. Elev: 98-2,116 ft (30-645 m). Blooms: Mar-Aug (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Spergularia macrotheca var. *longistyla*	long-styled sand-spurrey	-	-	1B.2	Alkaline soils in meadows, seeps, marshes, and swamps. Elev: 0-837 ft (0-255 m). Blooms: Feb-May (CNPS 2019).	Y	Potentially suitable habitat present.
Stebbinsoseris decipiens	Santa Cruz microseris	-	-	1B.2	Open areas, sometimes on serpentinite soils, in broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland habitats. Elev: 33-1,640 ft (10-500 m). Blooms: Apr-May (CNPS 2019).	N	Suitable habitat not present.
Streptanthus albidus ssp. *peramoenus*	most beautiful jewel-flower	-	-	1B.2	Serpentinite soil in chaparral, cismontane woodland, valley & foothill grassland. Elev: 312-3,281 ft (95-1,000 m). Blooms: Mar-Oct (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Streptanthus gladulosus ssp. *niger*	Tiburon jewelflower	FE	SE	1B.1	Serpentinite soils in valley and foothill grasslands. Elev: 98-492 ft (30-150 m). Blooms: May-Jun. Known from only two occurrences on the Tiburon Peninsula (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Stuckenia filiformis ssp. *alpina*	slender-leaved pondweed	-	-	2B.2	Assorted shallow freshwater marshes and swamps. Elev: 984-7,054 ft (300-2,150 m). Blooms: May-Jul (CNPS 2019).	N	Site is below documented elevation range at 0-30 ft (0-9 m).
Suaeda californica	California seablite	FE	-	1B.1	Coastal salt marshes and swamps. Elev: 0-49 ft (0-15 m). Blooms: Jul-Oct (CNPS 2019).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Symphyotrichum lentum	Suisun Marsh aster	-	-	1B.2	Brackish and freshwater marshes and swamps. Elev: 0-10 ft (0-3 m). Blooms: May-Nov (CNPS 2019).	Y	Potentially suitable habitat present.

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Trifolium amoenum	two-fork clover	FE	-	1B.1	Sometimes on serpentinite, in coastal bluff scrub and valley and foothill grassland. Elev: 16-1,362 ft (5-415 m). Blooms: Apr-Jun (CNPS 2019).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Trifolium hydrophilum	saline clover	-	-	1B.2	Marshes & swamps, valley & foothill grassland (mesic, alkaline), and vernal pools. Elev: 0-984 ft (0-300 m). Blooms: Apr-Jun (CNPS 2019).	N	Suitable habitat not present.
Triphysaria floribunda	San Francisco owl's-clover	-	-	1B.2	Usually serpentinite in coastal prairies, coastal scrub, and valley and foothill grasslands. Elev: 33-525 ft (10-160 m). Blooms: Apr-Jun (CNPS 2019).	N	Site lacks suitable soils and habitats.
Triquetrella californica	coastal triquetrella	-	-	1B.2	Moss that grows on soils in coastal bluff scrub and coastal scrub. Elev: 33-330 ft (10-100 m). Blooms: data unavailable (CNPS 2019).	N	Suitable habitat not present.
Viburnum ellipticum	oval-leaved viburnum	-	-	2B.3	Chaparral, cismontane woodland, and lower montane coniferous forest. Elev: 705-4,593 ft (215-1,400 m). Blooms: May-Jun (CNPS 2019).	N	Suitable habitat not present and site is below documented elevation range at 0-30 ft (0-9 m).
Invertebrates							
Callophrys mossii bayensis	San Bruno elfin butterfly	FE	-		Coastal grassland and low scrub of north-facing slopes, in the fog belt, where the larval host plant stonecrop (*Sedum spathulifolium*) grows. Known populations are restricted to San Mateo County (USFWS 2010).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Euphydryas editha bayensis	Bay checkerspot butterfly	FT	-		All currently occupied habitats occur on serpentine or serpentine-like grasslands that support at least two of the larval host plants: plantain (*Plantago erecta*), purple owl's-clover (*Castilleja densiflora*), and exserted paintbrush (*Castilleja exserta*) (USFWS 2009a).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Plebejus icarioides missionensis	Mission blue butterfly	FE	-		Coastal scrubland and grassland vegetation that contains at least one of the three larval host plants: silver lupine (*Lupinus albifrons*), manycolored lupine (*L. varicolor*), or summer lupine (*L. formosus*) (USFWS 2010).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Speyeria callippe callippe	callippe silverspot butterfly	FE	-		Native grassland and associated habitats containing the host plant: violet (*Viola pedunculata*). There are currently four populations considered to be *S. c. callippe,* which are located (1) on San Bruno Mountain in San Mateo County; (2) around Sears Point in Sonoma County; (3) in the hills in the City of Pleasanton in Alameda County; and (4) along the watershed that's east of the Calaveras Reservoir, east of the City of Milpitas, in Alameda County (USFWS 2009b).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Fish							
Acipenser medirostris	green sturgeon	FT	SSC		Adult and subadults spend most of their lives in the San Francisco Estuary and the Delta. Spawning occurs mostly in the mainstem of the Sacramento River. Young-of-the-year migrate down the Sacramento River to rear in the San Francisco Estuary (CalFish 2017).	Y	Suitable habitat present.

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Impacts Analyzed Y=Yes N=No	Rationale
Acipenser transmontanus	white sturgeon	-	SSC		Adult and subadults spend most of their lives in the San Francisco Estuary and the Delta. Spawning occurs mostly in the mainstem of the Sacramento River. Young-of-the-year migrate down the Sacramento River to rear in the San Francisco Estuary (CalFish 2017).	Y	Suitable habitat present.
Archoplites interruptus	Sacramento perch	-	SSC		Historically, Central Valley sloughs, slow-moving rivers, and lakes with beds of rooted emergent aquatic vegetation. Current distribution is artificially stocked farm ponds and reservoirs (USFWS 1996).	N	Project area outside the range for this species.
Entosphenus tridentatus	Pacific lamprey	-	SSC		Occurs along Pacific coast from Japan to Alaska and down to Baja California. Can be freshwater residents or anadromous. This species migrates long distances and is stopped only by major barriers such as dams. Need cold clear water with gravel for spawning. Young need slow flows and soft sediment for burrowing (Moyle et al. 2015).	N	Suitable habitat not present.
Eucyclogobius newberryi	tidewater goby	FE	SSC		Shallow coastal lagoons and the uppermost brackish zone of larger estuaries. Rarely found in marine or freshwater environments. Typically associated with still water, less than 3.3 ft (1 m) deep, with salinities of less than 12 parts per thousand (USFWS 2005).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Hypomesus transpacificus	delta smelt	FT	SE		Distribution includes the Sacramento River below Isleton, San Joaquin River below Mossdale, and Suisun Bay. Spawning areas include the Sacramento River below Sacramento, Mokelumne River system, Cache Slough, the delta, and Montezuma Slough (USFWS 1996).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Lampetra ayresii	river lamprey	-	SSC		Adults require clean, gravelly riffles in permanent streams for spawning, while the ammocoetes require sandy backwaters or stream edges in which to bury themselves, where water quality is continuously high and temperatures do not exceed 25°C. Occur in Sacramento-San Joaquin Delta and tributaries (Moyle et al. 2015).	N	Suitable habitat not present.
Mylophoradon conocephalus	hardhead	-	SSC		Small to large streams in a low to mid-elevation environments. May also inhabit lakes or reservoirs. Preferred stream temperature might easily exceed 20ºC, though these fish do not favor low dissolved oxygen levels. Usually found in clear deep streams with a slow but present flow. Though spawning may occur in pools, runs, or riffles, the bedding area will typically be characterized by gravel and rocky substrate. Occur from Sacramento-San Joaquin and Russian River drainages from the Pit River, Modoc County, in the north to the Kern River, Kern County in the south (UC Davis 2017).	N	Suitable habitat not present.
Oncorhynchus mykiss irideus	steelhead	FT	-		Spawning habitat = gravel-bottomed, fast-flowing, well-oxygenated rivers and streams. Non-spawning = estuarine, marine waters (Busby et al 1996).	Y	Suitable habitat present.

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Impacts Analyzed Y=Yes N=No	Rationale
Oncorhynchus tshawytscha	chinook salmon	FT	ST		Currently found in the Sacramento-San Joaquin River Delta, the Sacramento River and its tributaries, including American, Yuba and Feather rivers, and Mill, Deer and Butte Creeks. (NMFS 2009).	N	Project area outside the range for this species.
Pogonichthys macrolepidotus	Sacramento splittail	-	SSC		Prefer slow-moving sections of freshwater rivers and sloughs. Most abundant in Suisun Bay and marsh region. Largely absent from Sacramento River except during spawning (USFWS 1996).	N	Suitable habitat not present and project area is outside the range for this species.
Spirinchus thaleichthys	longfin smelt	FC	ST		Spatial distribution in a bay or estuary is seasonally variable, but typically found closer to the ocean in summer and move upstream in winter. Spawn in freshwater with peak breeding season between February and April (UC Davis 2017).	Y	Suitable habitat present.
Thaleichthys pacificus	eulachon	FT	-		Spend majority of their lives in the ocean, but return to natal streams to spawn and die. In California, spawning occurs from mid-March through May in the northern part of the state. Spawning migration occurs when water temperatures are 39.2-46.4°F (4-8°C), and may slow or stop if temperatures rise above or fall below the favorable range (UC Davis 2017).	N	Project area outside the range for this species.
Amphibians							
Ambystoma californiense	California tiger salamander, central population	FT	ST		Upland grassland, oak savanna, or oak woodland habitats with established populations of California ground squirrel (*Otospermophilus beecheyi*) and Botta's pocket gopher (*Thommomys bottae*), and preferably multiple breeding pools. Breeding may occur in natural vernal pools and ponds, as well as livestock ponds and modified ephemeral and permanent ponds (USFWS 2017).	N	Suitable habitat not present.
Dicamptodon ensatus	California giant salamander	-	SSC		Species known to inhabit wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages. Found from Mendocino County near Point Arena east into the coast rages into Lake and Glenn counties, south to Sonoma and Marin counties, continuing south of the San Francisco Bay from San Mateo County to southern Santa Cruz County (Nafis 2017).	N	Suitable habitat not present.

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Impacts Analyzed Y=Yes N=No	Rationale
Rana boylii	foothill yellow-legged frog	-	SCT, SSC		Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools. From sea level to 6700 ft (2030 m). Occurs in the Coast Ranges from the Oregon border south to the Transverse Mountains in Los Angeles Co., in most of northern California west of the Cascade crest, and along the western flank of the Sierra south to Kern Co. (Nafis 2017).	N	Suitable habitat not present.
Rana draytonii	California red-legged Frog	FT	-		Utilize a wide range of aquatic habitats from streams, deep pools, backwaters in streams/creeks, ponds, marshes, sag ponds, dune ponds, and lagoons for breeding. Summer Habitat includes spaces under boulders or rocks and organic debris, such as downed trees or logs; industrial debris; and agricultural features, such as drains, watering troughs, abandoned sheds, or hay-ricks (USFWS 2002a).	N	Suitable habitat not present.
Reptiles							
Emys marmorata	western pond turtle	-	SSC		Found in a wide variety of habitats throughout California, but associated with permanent ponds, lakes, streams, irrigation ditches, and permanent pools along intermittent streams. Occurs throughout California, west of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. (CDFW 2017).	N	Suitable habitat not present. All aquatic resources salty/brackish.
Chelonia mydas	green sea turtle	FT	-		Inhabits shallow waters of lagoons, bays, estuaries, mangroves, as well as eelgrass and seaweed beds. Prefers areas with abundant aquatic vegetation, such as pastures of seagrasses and algae, in shallow, protected water (Nafis 2017).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Masticophis lateralis euryxanthus	Alameda whipsnake (=striped racer)	FT	ST		Associated with chaparral and shrubland communities, but will range into adjacent grassland and woodlands (USFWS 2002b).	N	Suitable habitat not present.
Phrynosoma blainvillii	coast horned lizard	-	SSC		Occurs in valley-foothill hardwood, conifer and riparian habitats, as well as in pine-cypress, juniper and annual grassland habitats. Ranges up to 4,000 ft (1,219 m) in the Sierra Nevada foothills, and up to 6,000 ft (1,800 m) in the mountains of southern California (CDFW 2017).	N	Project area is outside the range for this species (Nafis 2017).
Thamnophis sirtalis tetrataenia	San Francisco garter snake	FE	SE/FP		Utilizes a wide variety of habitats, preferring grasslands or wetlands near ponds, marshes and sloughs. May overwinter in upland areas away from water (Nafis 2017).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Birds							

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Impacts Analyzed Y=Yes N=No	Rationale
Accipiter gentilis	northern goshawk	-	SSC		Mature and old-growth forests including Pacific Ponderosa pine, Jeffrey pine, Lodgepole pine, mixed conifer, Douglas-fir, mixed Redwood-Doulas-fir hardwood, and quaking aspen. Occurs in North Coast Ranges through Sierra Nevada, Klamath, Cascade, and Warner Mts., in Mt. Pinos and San Jacinto, San Bernardino, and White Mts. (Shuford and Gardali 2008).	N	Suitable habitat not present.
Ammodramus savannarum	grasshopper sparrow	-	SSC		Frequents dense, dry or well-drained grassland, especially native grassland with a mix of grasses and forbs for foraging and nesting. Uses scattered shrubs for singing perches (CDFW 2017).	Y	Suitable habitat present.
Anser albifrons elgasi	tule greater white-fronted goose	-	SSC		Winter migrant that's restricted to the vicinity of federal and state refuges and the Butte Sink in the Sacramento Valley, Grizzly Island Wildlife Area, and adjacent duck clubs in Suisun Marsh, and, marginally the Napa Marshes (Shuford and Gardali 2008).	N	Project area outside the range for this species.
Aquila chrysaetos	golden eagle	-	FP		Habitat includes rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops. Uncommon resident and migrant throughout California, except the center of the Central Valley. (CDFW 2017).	N	Suitable habitat not present.
Asio flammeus	short-eared owl	-	SSC		Found in open, treeless areas with elevated sites for perches, and dense vegetation for roosting and nesting. Associated with perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands. An uncommon winter migrant in southern California, including the Channel Islands. Breeding range includes coastal areas in Del Norte and Humboldt counties, the San Francisco Bay Delta, northeastern Modoc plateau, the east side of the Sierra from Lake Tahoe south to Inyo county, and the San Joaquin valley (CDFW 2017).	Y	Suitable habitat present.
Asio otus	long-eared owl	-	SSC		Riparian habitat required; also uses live oak thickets and other dense stands of trees. Found in dense conifer stands at high elevations (CDFW 2017).	N	Suitable habitat not present.
Athene cunicularia	burrowing owl	-	SSC		Nesting habitat includes open areas with mammal burrows, including rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub, vacant lots and human disturbed lands. Soils must be friable for burrows (Bates 2006).	Y	Documented onsite and suitable habitat present.
Buteo swainsoni	Swainson's hawk	-	ST		Nests in stands with few trees in riparian areas, juniper-sage flats, and oak savannah. Forages in adjacent grasslands, agricultural fields and pastures. Breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert (CDFW 2017).	N	Suitable habitat not present.
Chaetura vauxi	Vaux's swift	-	SSC		Prefers redwood and Douglas fir habitats with nest sites in large hollow trees and snags, especially tall, burnt-out stubs (CDFW 2017).	N	Suitable habitat not present.

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Charadrius alexandrinus nivosus	western snowy plover	FT	SSC		Coastal populations nest on dune-backed beaches, sand spits, beaches at creeks and river mouths, and salt pans at lagoons and estuaries (USFWS 2007). Inland populations nest along barren to sparsely vegetated flats and along shores of alkaline and saline lakes, reservoirs, ponds, braided river channels, agricultural wastewater ponds, and salt evaporation ponds (Shuford and Gardali 2008). Inland nesting areas occur at the Salton Sea, Mono Lake, and at isolated sites on the shores of alkali lakes in northeastern California, in the Central Valley, and southeastern deserts (CDFW 2017).	Y	Suitable habitat present.
Circus hudsonius	northern harrier	-	SSC		Nest on the ground in patches of dense, tall vegetation in undisturbed areas. Breed and forage in variety of open habitats such as marshes, wet meadows, weedy borders of lakes, rivers and steams, grasslands, pastures, croplands, sagebrush flats and desert sinks (Shuford and Gardali 2008).	Y	Suitable habitat present.
Coturnicops noveboracensis	yellow rail	-	SSC		Densely vegetated marshes. Require sedge marshes/meadows with moist soil or shallow standing water for breeding (Shuford and Gardali 2008).	Y	Suitable habitat present.
Elanus leucurus	white-tailed kite	-	FP		Yearlong resident in coastal and valley lowlands; rarely found away from agricultural areas. Inhabits herbaceous and open stages of most habitats in cismontane California (CDFW 2017).	N	Suitable habitat not present.
Empidonax traillii	willow flycatcher	-	SE		Obligate riparian breeders. Nest in willow or alder habitats associated with moist meadows, perennial streams, and smaller spring-fed or boggy areas (Craig and Williams 1998). Resident in the Sierra Nevada and Cascade Range. Breeds along the Santa Ynez river in Santa Barbara County and along the Santa Clara River in Ventura County (CDFW 2017)	N	Suitable habitat not present.
Falco peregrinus anatum	American peregrine falcon	FD	SD FP		Breeds near wetlands lakes, rivers, or other waters on cliffs, banks, dunes or mounds, mostly in woodland, forest and coastal habitats. Nest is a scrape on a depression or ledge in an open site. May use man-made structures, snags, or trees for nesting (CDFW 2017).	N	Suitable habitat not present.
Geothlypis tricha sinuosa	saltmarsh common yellowthroat	-	SSC		Breeds and winters in wet meadow, fresh emergent wetland, and saline emergent wetland habitats. Also breeds in valley foothill riparian, occasionally in desert riparian, annual grassland, and perennial grassland habitats (CDFW 2017).	Y	Suitable habitat present.

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Impacts Analyzed Y=Yes N=No	Rationale
Haliaeetus leucocephalus	bald eagle	FD	SE FP		Nests in large, old-growth, or dominant live tree with open branchwork, especially ponderosa pine. Requires large bodies of water or rivers with abundant fish, and adjacent snags. Permanent resident, and uncommon winter migrant, now restricted to breeding mostly in Butte, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Trinity cos. About half of the wintering population is in the Klamath Basin (CDFW 2017).	N	Project area outside the range for this species.
Lanius ludovicianus	loggerhead shrike	-	SSC		Breed in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground (Shuford and Gardali 2008).	Y	Documented onsite and suitable habitat present.
Laterallus jamaicensis coturniculus	California black rail	-	ST FP		Yearlong resident of saline, brackish, and fresh emergent wetlands (CDFW 2017).	Y	Suitable habitat present.
Melospiza melodia maxillaris	Suisun song sparrow	-	SSC		Confined to tidal salt and brackish marshes fringing Carquinez Strait and Suisun Bay east to Antioch, at the confluence of the San Joaquin and Sacramento Rivers (Shuford and Gardali 2008).	N	Project area outside the range for this species.
Melospiza melodia pusillula	Alameda song sparrow	-	SSC		Tidal salt marshes (Shuford and Gardali 2008).	Y	Suitable habitat present.
Melospiza melodia samuelis	San Pablo song sparrow	-	SSC		Tidal salt marshes (Shuford and Gardali 2008).	Y	Suitable habitat present.
Passerculus sandwichensis alaudinus	Bryant's savannah sparrow	-	SSC		Inhabits low tidally influenced habitats, adjacent ruderal areas, moist grasslands within and just above the fog belt, and, infrequently, drier grasslands (Shuford and Gardali 2008).	Y	Suitable habitat present.
Pelecanus occidentalis californicus	California brown pelican	FD	FP		Warm coastal marine and estuarine environments. Rare inland. Breeds primarily on islands (Cornell University 2017).	Y	Suitable habitat present.
Rallus obsoletus obsoletus	Ridgway's rail	FE	SE FP		Occur in tidal salt and brackish marshes with unrestricted daily tidal flows, adequate invertebrate prey, well developed tidal channel networks, and suitable nesting and escape cover as refugia during extreme high tides (USFWS 2013).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Riparia riparia	bank swallow	-	ST		Riparian areas with sandy, vertical bluffs or riverbanks. Also nest in earthen banks and bluffs, as well as sand and gravel pits (CDFW 2017).	N	Suitable habitat not present.
Rynchops niger	black skimmer	-	SSC		Requires calm, shallow water for foraging, and sand bars, beaches, or dikes for roosting and nesting (CDFW 2017).	Y	Suitable habitat present.
Setophaga petechia	yellow warbler	-	SSC		Breeding occurs from the coast range in Del Norte county, east to the Modoc plateau, south along the coast range to Santa Barbara and Ventura counties, and along the western slope of the Sierra Nevada south to Kern county (CDFW 2017).	N	Suitable habitat not present.
Sternula antillarum browni	California least tern	FE	SE FP		Nest and roost in colonies on open beaches, forage near shore ocean waters and in shallow estuaries ad lagoons (USFWS 2006).	Y	Suitable habitat present.
Xanthocephalus xanthocephalus	yellow-headed blackbird	-	SSC		Nest in marshes with tall, emergent vegetation (e.g., tules and cattails) adjacent to deepwater (Shuford and Gardali 2008).	N	Project area outside the range for this species (CDFW 2017).
Mammals							

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Antrozous pallidus	pallid bat	-	SSC		Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings (CDFW 2017).	N	Suitable habitat not present.
Corynorhinus townsendii	Townsend's big-eared bat	-	SSC		Cave-dwelling, also roosts in old mine-workings, occasionally found in buildings. Population concentrations in areas with cavity-forming rock and in old mining districts (Bolster 1998).	N	Suitable habitat not present.
Enhydra lutris nereis	southern sea otter	FT	FP		Found in nearshore marine environments with giant and bull kelp from Ano Nuevo, San Mateo County to Point Sal, Santa Barbara County (CDFW 2017).	N	Suitable habitat not present.
Lasiurus blossevillii	western red bat	-	SSC		Roosting habitat includes forests and woodlands, often in edge habitats adjacent to streams, fields, or urban areas (CDFW 2017).	N	Suitable habitat not present.
Microtus californicus sanpabloensis	San Pablo vole	-	SSC		Known from salt marshes along San Pablo Creek in Contra Costa County, on the south shore of San Pablo Bay (Williams 1986)	N	Project area outside species range.
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	-	SSC		Common to abundant in forest habitats with moderate canopy cover, and moderate to dense understory cover, as well as in chaparral habitats. Generally absent from cultivated land and open grasslands (CDFW 2017).	N	Suitable habitat not present.
Nyctinomops macrotis	big free-tailed bat	-	SSC		Rare in California; records are from urban areas in San Diego County. A probable vagrant was collected in Alameda County, but the record validity is in question. Typically prefer rugged, rocky terrain. Roosts in buildings, caves, and sometimes tree cavities (CDFW 2017).	N	Project area outside species range.
Reithrodontomys raviventris	salt marsh harvest mouse	FE	SE		Salt marshes with dense stands of pickleweed; adjacent to upland, salt-tolerant vegetation (USFWS 1984).	N	Consultation with USFWS is ongoing, and this species is not one that is considered to have a potential to be adversely affected by the Project and, therefore, require consultation under the federal Endangered Species Act.
Scapanus latimanus parvus	Alameda Island mole	-	SSC		Known only from Alameda Island; however, no observational records could be located that confirm the existence of an extant population on Alameda Island (Bolster 1998).	N	Population on Alameda Island presumed extirpated.
Sorex vagrans halicoetes	salt-marsh wandering shrew	-	SSC		Inhabits salt marsh habitats with dense cover, abundant invertebrates, suitable nesting and resting sites, and continuous ground moisture. Current range is confined to small remnant stands of salt marsh found around the southern arm of the San Francisco Bay in San Mateo, Santa Clara, Alameda, and Contra Costa counties (CDFW 2017).	Y	Suitable habitat present.
Taxidea taxus	American badger	-	SSC		Open shrub, forest and herbaceous habitats with friable soils. Associated with treeless regions, prairies, park lands and cold desert areas. Range includes most of California, except the North Coast (CDFW 2017).	N	Suitable habitat not present.

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Zapus trinotatus orarius	Point Reyes jumping mouse	-	SSC		Wet, marshy coastal meadows; loose, humus-filled dark soils associated with coast redwood forests; thickets of deciduous woody vegetation along streams and seepage areas; and grassy areas beneath open-canopied coniferous forests. Restricted to the Point Reyes Peninsula in southern and western Marin County, where it is known from five localities (CDFW 2017).	N	Project area outside species range.

Key	
Federal & State Status	
(FC) Federal Candidate	(SCE) State Candidate Endangered
(FE) Federally Endangered	(SCT) State Candidate Threatened
(FD) Federally Delisted	(SE) State Endangered
(FPE) Federally Proposed Endangered	(SR) State Rare
(FT) Federally Threatened	(SSC) State Species of Special Concern
(NMFS) Species under their jurisdiction	(ST) State Threatened
(X) Critical habitat designated for this species	(FP) Fully Protected
CNPS Rare Plant Rank	
Rareness Ranks	
(1B) Rare, Threatened, or Endangered in California and Elsewhere	
(2) Rare, Threatened, or Endangered in California, But More Common Elsewhere	
Threat Ranks	
(0.1) Seriously threatened in California	
(0.2) Fairly threatened in California	
(0.3) Not very threatened in California	

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Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Impacts Analyzed Y=Yes N=No	Rationale

USFWS. 2002a. Recovery Plan for California Red-legged Frog (*Rana aurora draytonii*). USFWS; Portland, OR.

USFWS. 2002b. Draft Recovery Plan for Chaparral and Scrub Community Species East of San Francisco Bay, California. USFWS; Portland, OR.

USFWS. 2005. Recovery Plan for the Tidewater Goby (*Eucyclogobius newberryi*). USFWS; Portland, OR.

USFWS. 2006. California least tern (*Sternula antillarum browni*) 5-Year Review: Summary and Evaluation. USFWS; Carlsbad, CA.

USFWS. 2009a. Bay Checkerspot Butterfly 5-Year Review. USFWS; Sacramento, CA.

USFWS. 2009b. Callippe Silverspot Butterfly (*Speyeria callippe callippe*) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.

USFWS. 2010. San Bruno Elfin Butterfly (*Callophrys mossii bayensis*) and Mission Blue Butterfly (Icaricia icarioides missionensis) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.

USFWS. 2013. California clapper rail *(Rallus longirostris obsoletus)* 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.

USFWS. 2017. Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*). USFWS; Sacramento, CA.

Williams, D.F. 1986. Mammalian Species of Special Concern in California. Department of Biological Sciences, California State University, Stanislaus Turlock, CA.

For detailed information in regard to this appendix, please contact glenn.elliott@va.gov.

Key	
Federal & State Status	
(FC) Federal Candidate	(SCE) State Candidate Endangered
(FE) Federally Endangered	(SCT) State Candidate Threatened
(FD) Federally Delisted	(SE) State Endangered
(FPE) Federally Proposed Endangered	(SR) State Rare
(FT) Federally Threatened	(SSC) State Species of Special Concern
(NMFS) Species under the Jurisdiction of the National Marine Fisheries Service	(ST) State Threatened
(X) Critical habitat designated for this species	(FP) Fully Protected
CNPS Rare Plant Rank	
Rareness Ranks	
(1A) Presumed Extinct in California	
(1B) Rare, Threatened, or Endangered in California and Elsewhere	
(2) Rare, Threatened, or Endangered in California, But More Common Elsewhere	
(3) More Species Information Needed	
(4) Limited Distribution	
Threat Ranks	
(0.1) Seriously threatened in California	
(0.2) Fairly threatened in California	
(0.3) Not very threatened in California	

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