Appendix A Section 4(f) Resource Evaluation

This page intentionally left blank.

To: Ron Kiaaina, P.E.
Project Manager
California Department of Transportation, District 4

Date: October 26, 2021

From: Kanda Raj
Project Manager
Alameda County Transportation Commission

(1) SUBJECT: I-80/ASHBY AVENUE INTERCHANGE (STATE ROUTE 13 [SR-13]) IMPROVEMENT PROJECT – SECTION 4(F) RESOURCE EVALUATION

(2) PROJECT DESCRIPTION

The Interstate 80 (I-80)/Ashby Avenue Interchange (interchange) is located on I-80 between post miles (PM) 4.58 on I-80 and 13.90 on State Route (SR) 13 in the cities of Berkeley and Emeryville, in Alameda County. The I-80/Ashby Avenue Interchange Improvement Project (proposed project) would replace the existing elevated interchange connector ramps with a new bridge over I-80, realign access to the West Frontage Road, and introduce a new bicycle and pedestrian overcrossing (BPOC) and connection from 65th Street/Shellmound Street to the San Francisco Bay Trail. The proposed project consists of one Build Alternative which would improve safety, traffic, pedestrian, and bicycle operations. **Figure 1** shows the project location. **Figure 2** shows the proposed improvements.

(3) REGULATORY BACKGROUND

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law as 49 United States Code (USC) 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring the use of publicly-owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

there is no prudent and feasible alternative to using that land; and

the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this proposed project is being, or has been, carried out by the California Department of Transportation (Caltrans) under its assumption of responsibility pursuant to NEPA Assignment by the Federal Highway Administration (23 USC 327). To determine impacts of transportation projects on Section 4(f) properties, there are three main types of use: direct use, temporary use, and constructive use. A project may result in a *de minimis* impact under direct or temporary use, but not constructive use. Direct, temporary, and constructive use are defined below, as well as *de minimis* findings.

Project Location Figure 1

Source: Google Earth, 2019; Circlepoint, 2020.

Interchange Concept Alternative - Tight Diamond Modified (T-Intersection)

PRELIMINARY
FOR DISCUSSION PURPOSES ONLY
APRIL 2021

I-80/Ashby Avenue (SR-13) Interchange Improvement Project

Figure 2

This page left intentionally blank.

(9) Direct Use

A direct use of a Section 4(f) resource occurs when the property is permanently incorporated into a transportation facility. This may occur as a result of a full or partial acquisition of the property, permanent easement, or temporary easements that exceed regulatory requirements noted under temporary use, below.

(10) Temporary Use

A temporary use of a Section 4(f) resource occurs when there is a temporary occupancy of property that is considered adverse in terms of the preservationist purpose of the Section 4(f) statute. Under the Federal Highway Administration/Federal Transit Administration (FHWA/FTA) regulations (23 CFR 774.13), a temporary occupancy of property does not constitute a use of a Section 4(f) resource when all the following conditions are satisfied:

Duration is temporary (i.e., less than the time needed for construction of the project) and there should be no change in ownership of the land.

Scope of work is minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal).

There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.

The land being used must be fully restored (i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project).

There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

(11) Constructive Use

A constructive use of a Section 4(f) resource occurs when a transportation project does not permanently incorporate land from the resource, but the proximity of the project results in impacts (e.g., noise, vibration, visual, and property access) that are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. For example, a constructive use can occur under one of the following conditions:

The projected increase in noise attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility protected by Section 4(f).

The project substantially impairs aesthetic features of a resource protected by Section 4(f), where such features are considered important contributing elements to the value of the resource. An example of such an effect would be locating a proposed transportation facility in such proximity that it obstructs or eliminates views considered part of a National Register of Historic Places (NRHP) eligible, architecturally significant, or historical building's Section 4(f) eligibility. Another example would be locating a proposed transportation facility in such proximity that it detracts from the setting of a park or historic site which derives its value in substantial part due to its setting.

The project results in access restrictions that substantially diminishes the utility of a significant publicly-owned park, recreation area, or historic site.

(12) De Minimis Findings

Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. 109-59, amended existing Section 4(f) legislation at 23 USC 138 and 49 USC 303, to simplify the processing and approval of projects that would result in *de minimis* impacts (minor impacts)

on lands protected by Section 4(f). The requirements of Section 4(f) would be considered satisfied if the project would have only a "*de minimis* impact" on the Section 4(f) resource. The provision allows avoidance, minimization, and mitigation measures to be considered in making a *de minimis* determination. A *de minimis* impact is defined in 23 CFR 774.17 as follows:

For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

For historic sites, a *de minimis* impact means that, in accordance with 36 CFR 800, no historic property is affected by the project or the project would have "no adverse effect" on the property in question.

Officials with jurisdiction over a 4(f) resource must concur in writing with a *de minimis* determination. For recreational or refuges properties, concurrence from the officials having jurisdiction over the properties is required. For historical sites, concurrence from the State Historic Preservation Officer is required.

(13) CONSTRUCTION ACTIVITIES

Construction activities for the proposed project would include excavation, drilling, dewatering, pavement demolition, bridge demolition, mass grading, concrete form work, pavement installation, storm system installation, landscaping and irrigation, sign installation, striping operations, and traffic control. Construction work would be done primarily during daylight hours from 7:00 a.m. to 6:00 p.m. However, nighttime work and temporary street closures would be necessary for some project elements, to avoid major disruption to traffic and to avoid safety hazards such as demolition of the existing connectors. The most notable street closure relating to 4(f) resources is the temporary closure of West Frontage Road which will limit vehicular access to two public parks. Nighttime construction activities are anticipated to avoid disruption to traffic along I-80. Temporary construction easements would be required for construction equipment storage, staging, and laydown from Berkeley near Aquatic Park and from Emeryville along Shellmound Street.

(14) OPERATIONAL ACTIVITIES

Operation of the new bridge, pedestrian overcrossing and realigned West Frontage Road could include constructive use impacts such as noise impacts to parks. The potential for operational impacts will also be analyzed.

(15) SECTION 4(F) ANALYSIS

For the purposes of this evaluation, two terms describing the study area will be used in order to be consistent with standard conventions. When evaluating potential historic and archaeological resources, the term Area of Potential Effects (APE) will be used. The APE is defined as the geographical area(s) within which an undertaking may cause changes in the character or use of historic and archaeological properties (see **Figure 3**). The term Environmental Study Limits (ESL) will be used to discuss the area where recreational resources are located. **Figure 4** shows the locations of the Section 4(f) resources discussed below.


Heinz Ave
Union Pacific
Anthony St
5th St
Potter St
Murray
Ashby Ave
7th St
Folger Ave
Eastshore Fwy
W Frontage Rd
Potter St
Bay St
Union Pacific Railroad
67th St
City Limits Cir
66th St
Liquid Sugar Dr
Vallejo St
65th St
Ocean Av
64th St
La Coste St
Hollis St
63rd St
Shellmound St
Overland Ave
San Francisco Bay
64th St
62nd St
Doyle St
Frontage Rd
Christie Ave
Caltrans Project Manager
7/6/2021
Date
Charles C. Palmer
Caltrans PQS, Architectural History
07/02/2021
Date
Caltrans PQS, Archaeology
07/02/21
Date
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS
Supplemental Area of Potential Effects
Interstate 80/Ashby Avenue (Route 13)
Interchange Improvement Project
N
0 250 500
Feet
Archaeological APE
Alameda County Parcels
Architectural APE
Existing Caltrans ROW
Note: Where the APE is identical for both resource areas, the lines are offset to depict both.
04-ALA-80/13-PM 4.58/13.90
EA 04-18000225
Project ID 04-1800-0025
Figure 3

-

Section 4(f) Resources Figure 4

Source: Google Earth; Cardepoint, 2021.

The resources in this Section 4(f) analysis include: one historic resource, the KRE Radio Station building and four public recreational resources. Christie Park in Emeryville would be defined as a 4(f) resources, but is too far away from the project location to be subject to an impact or use during operation or construction of the proposed project. Therefore they are not included in the analysis below.

(19) CULTURAL RESOURCES

(20) KRE Radio Station Building

The KRE Radio Station building, located 200 feet north of the I-80 onramp, is the only NRHP eligible historic property present within the APE. Other resources evaluated for historical significance included a State-owned bridge, three bridge overcrossings, four buildings, and Berkeley Aquatic Park, which overlaps with the proposed project's APE. These resources were found to have no historical significance.

Construction Impacts

Project construction would not directly or indirectly impact the KRE Radio Station Building. The boundaries of the historic property are limited to the KRE radio station building and do not include the transmitting tower scheduled for removal and replacement, or any other portions of the subject parcel. As such, the proposed project would not have any effects on historic properties/historical resources pursuant to 36 CFR 800.4(d)(1). Therefore, there would be no use of the Section 4(f) resource.

Operational Impacts

Portions of ROW would be acquired from the northeast quadrant of the interchange near the KRE radio station building. The acquisition would be necessary for the construction of the Bay Street connector to Ashby Avenue. A permanent construction easement would also be required for future wall maintenance. The project team will work with the property owner in making the appropriate modifications. This acquisition would not impact the KRE Radio Building and would not affect its eligibility status.

(21) Archeological Resources

No known archaeological sites are located within the APE. Therefore, no known archaeological sites would be affected by the proposed project.

(22) PUBLIC RECREATIONAL RESOURCES

The following public recreational resources are present in the project area and are discussed in detail below: Berkeley Aquatic Park, San Francisco Bay Trail, Point Emery, and Christie Park.

(23) Berkeley Aquatic Park

The Berkeley Aquatic Park provides a wide range of recreational opportunities, including bird-watching, boating, hiking, and a "Dream Land for Kids" play area, as well as a habitat for bird and aquatic life. The park is located north of the Ashby Avenue Interchange and overlaps with the ESL.

Construction Impacts

Access

The proposed relocation of one guy wire for the KRE transmitting tower would require construction activity along Bay Street. However, Bay Street and the southern access point to Berkeley Aquatic Park will be maintained during construction. No interruptions to access are anticipated in the Berkeley Aquatic Park area.

Noise

Construction noise has the potential to affect Berkeley Aquatic Park due to the relative distance between the project location and the park (less than 1,000 feet). The highest maximum instantaneous noise levels would result from demolition, bridge work, paving, and utility equipment. Construction noise for all receptors would be short-term and intermittent.

The proposed project would be subject to construction noise provisions listed in the Berkeley Municipal Code, (Section 5.13.05). Noise levels during construction would be temporary and the majority of construction activities would be limited to daytime construction hours: 7:00 a.m. to 6:00 p.m. However, there would be several intervals where construction activities would occur at night (outside of the limitations imposed by the municipal codes) along the mainline of I-80 and along the San Francisco Bay Trail. Nighttime activities would be necessary to avoid major disruption for tasks that could interfere with traffic or create safety hazards such as demolition of the existing connectors.

Nighttime work would include demolition, placement of the precast girder, and construction of new foundations. The proposed project would require an exception from Caltrans Standard Specification, Section 14-08.02 for this use of concrete saws. Standard Caltrans noise control measures would be implemented to minimize or reduce the potential for noise impacts from project construction. As such, the proposed project would not have effects related to construction noise on Berkeley Aquatic Park Section 4(f) resources. Therefore, no constructive use of Berkeley Aquatic Park would occur.

Operational Impacts

Access

Once the proposed project is constructed, bicyclists and pedestrians at the Berkeley Aquatic Park can utilize the pedestrian overcrossing at 65th Street to access the regional San Francisco Bay Trail on the other side of I-80. This is a noted gap closure and part of the stated purpose of the proposed project. Therefore, no use or operational impacts are anticipated.

Noise

Once the proposed project is constructed, traffic and operations will resume with the new interchange configuration. Berkeley Aquatic Park would not be subject to additional operational noise impacts from the interchange, because the volume of traffic along the closest segment (new eastbound I-80 onramp) would be similar to existing conditions. Therefore, no constructive use or operation impacts are anticipated.

(24) San Francisco Bay Trail

The San Francisco Bay Trail is a planned 500-mile walking and cycling path that connects 47 cities across 9 counties all along the San Francisco Bay shoreline. Besides amenities along the San Francisco Bay Shoreline, the San Francisco Bay Trail provides connection to other multimodal facilities, such as Berkeley Aquatic Park, Point Emery, and marinas in Emeryville. It also provides an active transportation corridor.[1] The San Francisco Bay Trail passes through the ESL west of the Ashby Avenue Interchange.

[1] The San Francisco Bay Trail "The Bay Trail Plan," 2021. Available here: https://baytrail.org/about-the-trail/welcome-to-the-san-francisco-bay-trail/. Last accessed: June 29, 2021.

Construction Impacts

Access

During construction of the proposed outfall south of Point Emery, for approximately 4 weeks, a temporary bicycle detour around the outfall construction area would be implemented to maintain full access to the San Francisco Bay Trail. However, public access along the San Francisco Bay Trail would be maintained at all times. All temporarily disturbed areas would be fully restored to pre-project conditions once temporary impacts are complete. Therefore, no use or impacts to the San Francisco Bay Trail would occur during construction.

Noise

As with Berkeley Aquatic Park, the San Francisco Bay Trail is close enough to the construction area that it will be subject to noise impacts during construction. The highest maximum instantaneous noise levels would result from demolition, bridge work, paving, and utility equipment. Construction noise for all receptors would be short-term and intermittent.

Noise levels during construction would be temporary and the majority of construction activities would be limited to daytime construction hours: 7:00 a.m. to 6:00 p.m. However, there would be several intervals where construction activities would occur at night (outside of the limitations imposed by the municipal codes) along the mainline of I-80 and along the San Francisco Bay Trail. Nighttime activities would be necessary to avoid major disruption for tasks that could interfere with traffic or create safety hazards such as demolition of the existing connectors.

Nighttime work would include demolition, placement of the precast girder, and construction of new foundations. The proposed project would require an exception from Caltrans Standard Specification, Section 14-08.02 for this use of concrete saws. Standard Caltrans noise control measures would be implemented to minimize or reduce the potential for noise impacts from project construction. As such, the proposed project would not have effects related to construction noise on the San Francisco Bay Trail. Therefore, no constructive use of the San Francisco Bay Trail would occur.

Operational Impacts

Access

Once the proposed project is constructed, more users would have access to the San Francisco Bay Trail from the connection provided by the pedestrian overcrossing over I-80 at 65th Street. Public access to the trail would not be reduced as a result of operation of the proposed project, and any minor effects on the resource would be minimized, mitigated, and avoided. No operational uses of or impacts to the San Francisco Bay Trail are anticipated.

Noise

Once the proposed project is constructed, traffic and operations will resume with the new interchange configuration. The San Francisco Bay Trail would not be subject to operational noise impacts from the interchange because the volume of traffic along the West Frontage Road would be similar to existing conditions. Therefore, no constructive use or operation impacts are anticipated.

(25) Point Emery

Point Emery is a small peninsular beach-front park featuring unobstructed views of the San Francisco Bay maintained by the City of Emeryville. The park features a driveway access at Point Emery Lane and also has a beach access path, and a small hiking path that connects to the San Francisco Bay Trail. Point Emery also has several launch points to San Francisco Bay for small sport watercraft and is popular destination for kayakers, stand-up paddlers, kiteboarders and windsurfers. Point Emery has a surface parking lot with 13 standard parking spaces and one handicapped parking space, and is located west of the I-80 Ashby Avenue Interchange within the ESL.

Construction Impacts

Access

The temporary closure of West Frontage Road from University Avenue would prohibit vehicular access to Point Emery located west of the interchange and approximately 14 associated parking spaces. Point Emery can be accessed during the temporary closure of West Frontage Road via the San Francisco Bay Trail, thus maintaining pedestrian access during construction. However, vehicular access and small watercraft launching would not be available during the temporary street closure. Signage and notification of alternate facilities would be included as part of the TMP. Once the West Frontage Road realignment is complete, vehicular access to Point Emery as well the parking lot would be fully restored. The TMP would minimize impacts to access to Point Emery during construction.

Noise

Point Emery is close enough to the construction area that it will be subject to noise impacts during construction. The highest maximum instantaneous noise levels would result from demolition, bridge work, paving, and utility equipment. Construction noise for all receptors would be short-term and intermittent.

Standard Caltrans noise control measures would be implemented to minimize or reduce the potential for noise impacts from project construction. As such, the proposed project would not have effects related to construction noise on the San Francisco Bay Trail. Therefore, no constructive use of Point Emery would occur.

Operational Impacts

Access

The pedestrian overcrossing would enhance recreational access to Point Emery. Therefore, the proposed project would have no operational or use impacts to Point Emery.

Noise

Once construction of the proposed project has been completed, Point Emery will resume its normal operations and all access and on-street parking will be restored. The alignment of West Frontage Road would occur further away from Point Emery after construction. Therefore, the proposed project would have no operational or use impacts to Point Emery related to noise.

(26) Christie Park

Christie Park is a small neighborhood park located approximately 0.5 mile south of the project location and includes an ocean-themed children's playground and a dog park. However, Christie Park is located

too far away from the project location to be impacted by the construction or operation of the proposed project.

(27) SUMMARY OF FINDINGS

The proposed project would not result in any direct use or temporary occupancy of historic or recreational resources. Potential increases in noise attributable to the proposed project would be temporary and would not substantially impair features or attributes of Berkeley Aquatic Park, San Francisco Bay Trail, Point Emery, or Christie Park. Detours during construction periods would be temporary and only during the construction period and would be managed as part of the TMP. The proposed project would not result in a constructive use of the described Section 4(f) resources. The proposed project would not result in a use of any other Section 4(f) resources.

PREPARED BY:_____ DATE: 12/2/2021
Andrew Metzger
Project Manager, Circlepoint

APPROVED BY: Wahida Rashid DATE: 12/2/2021
Wahida Rashid
Caltrans Branch Chief, Environmental Planning

This page intentionally left blank.

Appendix B Title VI Policy Statement

This page intentionally left blank.

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

August 2020

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a nondiscriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at <Title.VI@dot.ca.gov>.

Original signed by
Toks Omishakin
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

Agosto de 2020

DECLARACIÓN DE POLÍTICA
DE NO DISCRIMINACIÓN

El Departamento de Transporte de California, bajo el Título VI de la Ley de Derechos Civiles de 1964, asegura que *"Ninguna persona en los Estados Unidos, debido a su raza, color u origen nacional, será excluída de participar, ni se le negarán los beneficios, o será objeto de discriminación, en ningún programa o actividad que reciba ayuda financiera federal."*

Caltrans hará todos los esfuerzos para asegurar que no exista discriminación en ninguno de sus servicios, programas y actividades, ya sea que reciban fondos del gobierno federal o no, y que los servicios y beneficios sean justamente distribuidos a todas las personas sin importar su raza, color, u origen nacional. Adicionalmente, Caltrans facilitará la participación significativa en el proceso de planeación de los programas de transporte de manera no discriminatoria.

Los estatutos federales relacionados, los remedios, y la ley estatal refuerzan estas protecciones para incluir el sexo, la discapacidad, la religión, la orientación sexual y la edad.

Para información u orientación sobre cómo presentar una queja o para obtener más información relacionada con el Título VI, por favor comuníquese con el Gerente del Título VI al teléfono (916) 324-8379 o visite la siguiente página de Internet: https://dot.ca.gov/programs/civil-rights/title-vi.

Para obtener esta información en un formato alternativo como el Braille o en un lenguaje diferente al inglés, por favor póngase en contacto con la Oficina de Derechos Civiles del Departamento de Transporte de California, al 1823 14th Street, MS-79, Sacramento, CA 95811; al teléfono (916) 324-8379 (Teléfono de Texto TTY: 711); o al email: Title.VI@dot.ca.gov

Original signed by
Toks Omishakin
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Appendix C Environmental Commitments Record

This page intentionally left blank.

Appendix C Environmental Commitment Record (ECR)

In order to be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record [ECR] which follows) would be implemented. During project design, avoidance, minimization, and /or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this ECR are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented. Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this ECR.

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF CON-1	Adhere to Caltrans's standard specifications for noise control, dust abatement, demolition, hazardous materials, and other good housekeeping measures and best management practices (BMPs) for the construction site.	Draft IS/EA Section 1.0	Construction	Contractor
PF CON-2	The contractor will be responsible for securing all work zones in and around the construction sites, including staging areas within Caltrans, City of Emeryville, and City of Berkeley ROW. Security of the project work zones will be the responsibility of the contractor until completion of construction.	Draft IS/EA Section 1.0	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF COM-1	Access to all private properties will be maintained by the contractor during construction.	Draft IS/EA Section 1.0	Construction	Contractor
PF COM-2	Caltrans will coordinate relocation work with the affected utility companies to minimize disruption of services to customers in the area during construction. If previously unknown underground utilities are encountered, Caltrans will coordinate with the utility provider to develop plans to address the utility conflict, protect the utility if needed, and limit service interruptions. Any short-term, limited service interruptions of known utilities will be scheduled well in advance, and appropriate notification will be provided to users.	Draft IS/EA Section 1.0	Design through Construction	Caltrans, Alameda CTC
PF COM-3	Caltrans will coordinate with emergency service providers to avoid emergency service delays by ensuring that all providers are aware well in advance of lane closures. Proactive public information systems, such as changeable message signs, would notify travelers of pending construction activities. A TMP will also be developed as part of the project to address traffic impacts from staged construction, lane closures, and specific traffic handling concerns such as emergency access during project construction.	Draft IS/EA Section 1.0	Design through Construction	Traffic Operations

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF COM-4	During the design phase, prepare a TMP that includes plans for traffic rerouting, a detour plan (if required), and public information procedures with participation from local agencies, transit services, local communities, business associations, and affected drivers. Early and well-publicized announcements and other public information measures will be implemented prior to and during construction to minimize confusion, inconvenience, and traffic congestion. If detours are required, detour routes will be planned in coordination with Caltrans and the cities of Berkeley and Emeryville traffic departments and will be noticed to emergency service providers, transit operators, and I-80 users in advance.	Draft IS/EA Section 1.0	Design through Construction	Caltrans, Alameda CTC, and Traffic Operations.
PF COM-5	During construction of the project, some on-street parking restrictions may be required on a temporary basis. A public outreach program will be implemented throughout the construction period to keep the public informed of the construction schedule and scheduled parking and roadway closures, including detour routes and, if available, alternative parking.	Draft IS/EA Section 1.0	Final Design and Construction	Caltrans, Alameda CTC

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM UTL-1	Detailed utility coordination and verification will be required during the project's design phase project. The locations of the utilities will not be positively identified until final design, in coordination with the affected utility owners. Any potential utility conflicts identified during the design phase will be avoided if possible. If relocation is necessary, such utilities would be relocated to locations acceptable to the utility provider within the right-of-way. If utilities cannot be relocated within Caltrans' ROW, additional detailed screening of the relocation areas will be required. Coordination with all utility owners within the project location will continue during the design and construction phases of the proposed project.	Draft IS/EA Section 0.1/ Section 2.1.8	Final Design through Construction	Caltrans, Alameda CTC
AMM UTL-2	Emergency service providers will be notified prior to construction of any temporary road closures and/or detours as part of the Transportation Management Plan (TMP). Caltrans would prepare and implement a TMP as a part of PF TRA-1, described in Section 2.1.5, Traffic and Transportation. The TMP will specify all timeframes for all lane closures and detours. Implementation of the TMP will reduce short-term operational effects to police, fire, and emergency service providers that may result from construction of the proposed project.	Draft IS/EA Section 0.1/ Section 2.1.8	Design through Construction	Caltrans, Alameda CTC

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF TRA-1	A Transportation Management Plan (TMP) would be developed as part of the project construction planning phase. The TMP would address potential impacts to circulation of all modes of travel (i.e., transit, bicycles, pedestrians, and vehicles). Roadway and/or pedestrian access to all occupied businesses and respective parking lots would be maintained during project construction. The TMP would include an evaluation of potential detour impacts and would also include measures to minimize, avoid, and/or mitigate impacts to alternate routes. The TMP would address coordination with local agencies for traffic through or near the construction zone. Staging areas would be located within the existing Caltrans ROW.	Draft IS/EA Section 2.1.9	Design through Construction	Caltrans, Alameda CTC
AMM TRA-1	The I-80 mainline closures would occur at night for the placement of the pre-cast girders for the proposed Ashby overcrossing, demolition of the remaining original ramp structures over I-80 and false work erection and removal for the bike and pedestrian overcrossing. All closures and detours will be advertised well in advance as part of the public information campaign and emergency/law enforcement will also be notified.	Draft IS/EA 2.1.9	Construction	Contractor
AMM TRA-2	During the construction of West Frontage Road, vehicular detours and closure would be anticipated in Stages 1, 2, and 3.	Draft IS/EA Section 2.1.9	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM TRA-3	Mainline traffic would be transitioned temporarily onto the right shoulder to accommodate the median falsework support structure for BPOC. Lane closure plans would be developed for nighttime closures at each construction stage.	Draft IS/EA Section 2.1.9	Construction	Contractor
AMM TRA-4	The Potter Street eastbound I-80 on-ramp would remain open until the construction of the new on-ramp and then it would be permanently closed and replaced by the new on-ramp.	Draft IS/EA Section 2.1.9	Construction	Contractor
AMM TRA-5	During the construction of the new outfall area, a temporary detour around the construction area will be implemented to ensure the continuous access and function of the San Francisco Bay Trail.	Draft IS/EA Section 2.1.9	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF VIS-1	Vegetation Removal Measures. Includes the following: • Minimize the removal of groundcover, shrubs, and mature trees to the maximum extent possible, utilizing open areas for contractor staging/storage areas. • Protect existing vegetation outside the clearing and grubbing limits from the contractor's operations, equipment, and materials storage. • Place high visibility temporary fencing around vegetation to be protected before roadway work begins. • Provide truck watering of vegetation when automated irrigation is interrupted by construction.	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC, Contractor
PF VIS-2	Fund required replacement planting through the parent roadway contract to be completed as a separate contract, (within 2 years of roadway completion,) with a three-year plant establishment period (PEP), unless the estimated cost is below $300,000 (then only one-year PEP).	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC
PF VIS-3	Revegetation Planting Measures. All disturbed areas shall receive hydroseeded treatment of erosion control grasses, and if appropriate, locally native grasses.	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF VIS-4	Landscape Plantings. Use drought-tolerant plants, including California native species, as part of the planting palette where regionally appropriate. Planting must be maintainable, low maintenance, durable, and site appropriate.	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC
PF VIS-5	Landscape Plantings. Plantings within the State right-of-way will follow the 1997 Caltrans Plant Setback and Spacing Guide. Use of turf is prohibited within the State right-of-way	Draft IS/EA Section 1.0	Preliminary Design through Construction	Caltrans, Alameda CTC
PF VIS-6	Light and Glare. As directed by Caltrans, appropriate light and glare screening measures will be used at the construction staging areas including the use of downward cast lighting. Shielding will be used to the extent feasible for new lighting apparatuses within the project area. Lighting of the transportation facilities would be shielded and directed to only areas that required for operations and safety, to the maximum extent feasible.	Draft IS/EA Section 1.0	Design	Caltrans, Alameda CTC

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF VIS-7	Construction Impact Measures. Caltrans will use standard construction equipment and protocol for the Build Alternative. ▪ Place unsightly materials, equipment storage and staging so that they are not visible within the foreground of the highway corridor and local streets to the maximum extent feasible. Where such siting is unavoidable, material and equipment shall be visually screened to minimize visibility from the roadway and nearby sensitive off-road receptors. ▪ Revegetate all areas disturbed by construction, staging and storage per PF VIS-1 through PF VIS-7 Limit all construction lighting to within the area of work and avoid light trespass through the use of directional lighting and shielding as needed.	Draft IS/EA Section 2.1.10	Construction	Contractor
AMM VIS-1	To avoid the inadvertent creation of areas that appeal to human usage (e.g., open areas under bridge structures and isolated vacant lots), the final design will include measures to discourage the creation of encampments. Vacant areas under new ramp bridges will be fenced off. Other measures such as brush removal and placement of larger landscaping space fillers, such as boulders, undulating landforms, mixed size cobbled paving, etc., may also be considered in the final design.	Draft IS/EA Section 2.1.10	Final Design	Caltrans, Alameda CTC

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM VIS-2	Aesthetic Treatments. To reduce the visual impact of new retaining walls and bridge structures, aesthetic treatments consisting of color, texture and/or patterning will be applied to reduce visual impacts. ▪ New concrete retaining walls should receive architectural treatment that is context sensitive. ▪ Treatments of color, pattern and/or texture are required in order to reduce visual impacts, glare, and the possible incidence of graffiti.	Draft IS/EA Section 2.1.10	Design through Construction	Caltrans, Alameda CTC, Contractor
	▪			

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM VIS-3	Additional Construction Impact Measures. • Any roadside vegetation and irrigation systems that are damaged or removed during project construction shall be replaced according to Caltrans policy and the requirements of the Cities of Berkeley and Emeryville. • When trenching for utilities, avoid trenching within drip lines of trees and screening shrubs. Directional drilling that would avoid damaging root systems of established plant material shall be used, when reasonable, as opposed to open trenching to install new conduit in places where work within the drip line would be required. Trees and screening shrubs shall be protected from damage during construction. • Provide highway planting within Caltrans right-of-way where feasible. Caltrans safety-setback requirements would apply for all plantings within State right-of-way. Provide street trees, shrubs, and groundcover on local streets where feasible.	Draft IS/EA Section 2.1.10	Construction	Contractor
PF CUL-1	If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a Caltrans qualified archaeologist is contacted to assess the nature and significance of the find.	Draft IS/EA Section 2.1.11	Construction	Caltrans, Alameda CTC, Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF CUL-2	If Caltrans Professionally Qualified Staff determines that cultural materials contain human remains, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. Caltrans' Cultural Resources Studies Office will contact the Alameda County Coroner. Pursuant to CA PRC Section 5097.98, if the remains are thought by the coroner to be Native American, the coroner will notify the NAHC, which will then notify the Most Likely Descendent. Caltrans, District 4, Cultural Resources Studies Office will work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable	Draft IS/EA Section 2.1.11	Construction	Contractor
PF WQ-1	Temporary construction site BMPs will be implemented during construction to prevent any construction materials or debris from entering storm drains or drainage ditches within the project vicinity. Permanent erosion control BMPs will be implemented to prevent silt and sediment from entering drainage facilities and discharging into the Bay.	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-2	The design features to address water quality impacts are a condition of the Caltrans MS4 Permit, MRP, CGP, and other regulatory agency requirements. Details of these features or BMPs will be developed and incorporated into the project design and operations prior to construction. With implementation of these design features or BMPs, short-term construction-related water quality impacts and permanent water quality impacts will be avoided or minimized.	Draft IS/EA Section 2.2.2	Design	Caltrans, Alameda CTC
PF WQ-3	The CGP, Caltrans, and local standards require the project's contractor to implement an SWPPP to comply with the conditions of the CGP. The SWPPP will be submitted by the contractor and approved by Caltrans prior to the start of construction. The SWPPP will detail the measures needed to prevent temporary water quality impacts resulting from construction activities. The SWPPP will also include development of a Construction Site Monitoring Program that details procedures and methods related to the visual monitoring, sampling, and analysis plans.	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-4	Prior to any soil disturbance, a Notice of Intent will be filed with the SWRCB's Storm Water Multiple Application and Report Tracking System. In addition to filing a Notice of Intent, all dischargers must electronically file Permit Registration Documents, Notice of Termination, changes of information, sampling and monitoring information, annual reporting, and other required compliance documents through the SWRCB's Storm Water Multiple Application and Report Tracking System.	Draft IS/EA Section 2.2.2	Construction	Contractor
PF WQ-5	Temporary impacts to water quality during construction will be avoided or minimized by implementing temporary construction site BMPs. Typical construction site BMPs that shall be considered for this project include soil stabilization, sediment control, tracking control, non-stormwater management, and waste management and materials pollution control. These BMPs are discussed in greater detail in Chapter 2. The selected BMPs are consistent with the practices required under the CGP. The actual minimum temporary construction site BMPs necessary for the project to comply with the CGP, Caltrans, and local standards will be determined during the design phase.	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-6	Dewatering activities and the clean water diversion will comply with the Caltrans Standard Specifications and Field Guide to Construction Site Dewatering, and, if required, a separate dewatering permit will be obtained prior to the start of construction.	Draft IS/EA Section 2.2.2	Construction	Contractor
PF WQ-7	A spill on the roadway will trigger immediate response actions to report, contain, and mitigate the incident. The California Office of Emergency Services has developed a Hazardous Materials Incident Contingency Plan, which provides a program for response to spills involving hazardous materials. The plan designates a chain of command for notification, evacuation, response, and cleanup of spills.	Draft IS/EA Section 2.2.2	Construction	Contractor
PF WQ-8	Drainage features, such as energy dissipation devices (e.g., flared end sections and tee dissipaters), will be considered at drainage outfalls to reduce the velocity and dissipate flows as they discharge from the culvert.	Draft IS/EA Section 2.2.2	Design	Caltrans, Alameda CTC
PF WQ-9	Rock slope protection will be placed at culvert outfalls and within drainage ditches and swales where water flow may cause erosion.	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-10	Permanent erosion control measures will be applied to all exposed areas once grading or soil disturbance work is completed as a permanent measure to achieve final slope stabilization. These measures may include hydraulically applying a combination of hydroseed, hydromulch, straw, tackifier, and compost to promote vegetation establishment and installing fiber rolls to prevent sheet flow from concentrating and causing gullies. For steeper slopes or areas that may be difficult for vegetation to establish, measures such as netting, blankets, or slope paving can be considered to provide permanent stabilization.	Draft IS/EA Section 2.2.2	Construction	Contractor
PF WQ-11	The proposed added impervious area is minimal; therefore, the potential increase in sediment-laden flows is expected to be minimal. Existing drainage facilities are expected to be modified or removed and new drainage features installed to convey runoff. The MRP prioritizes the use of low-impact development measures for stormwater treatment controls. These measures are harvesting and use, infiltration, evapotranspiration, and biotreatment. Other conventional treatment measures (e.g., basins and vaults) are allowable under special conditions outlined in the permit.	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF WQ-12	Given the site and design limitations, other conventional-type treatment measures that capture and treat stormwater runoff may need to be considered for this project; these devices can include basins, media filters, or tree well filters. In coordination with Caltrans, the City of Berkeley, and the City of Emeryville, nonstandard treatment measures will also be considered, such as the use of low flow pumps to convey runoff to a treatment facility. The final drainage design, selection of treatment BMP types and locations, and determination of impervious area treated will be refined during the design phase when detailed design information is developed.	Draft IS/EA Section 2.2.2	Design	Caltrans, Alameda CTC

AMM WQ-1	Temporary Construction BMPs. Pursuant to the Construction General Permit, a SWPPP would be developed, which includes guidance for design staff to incorporate special provisions into construction contracts to include measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges. The SWPPP would reference the Caltrans Construction Site BMPs Manual. This manual is comprehensive and includes many other protective measures and guidance to prevent and minimize pollutant discharges. Temporary BMPs to be completed, at a minimum, are outlined below. Construction Site BMPs would minimize temporary effects that could occur during construction by carrying out the following measures: ▪ Temporary soil stabilization, such as the use of plastic covers for stockpiles and high visibility fences to designated areas of off-limits to the contractor. ▪ Temporary sediment control, which usually consists of using devices to physically block sediment runoff. Such devices include fiber rolls, silt fences, gravel bag berms, and hydraulic mulch. These devices can either divert, detain, or protect disturbed soil from erosion. Wind erosion control measures: ▪ Dust and soil tracking control to prevent construction equipment from tracking soil and dust around and outside of the construction area. Points of entrances and exits to the construction site would	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	be stabilized to reduce the tracking of mud and dirt onto public roads. ▪ Management of water used during construction to prevent further runoff and excess water use. ▪ Waste management and materials pollution control, especially for concrete washout facilities. The contractor would specify vehicle washing areas to contain concrete waste materials.			

AMM WQ-2	Design Pollution Prevention BMPs. Design Pollution Prevention BMPs would be employed to minimize hydromodification impacts, and may include but are not limited to: ▪ Attenuation of peak stormwater flow through passive or active measures to ensure peak flow volumes do not increase with project completion. Passive measures may include runoff detention and/or self-retaining areas), and active measures may include subsurface pipe arrays or vaults with metered discharge. ▪ Soil modification to enhance local infiltration capacities. ▪ Increased on-site pervious area. This would include planting additional areas of vegetation and/or laying mulch in place of concrete, where feasible. ▪ Energy dissipation zones/devices to reduce erosion potential: Necessary erosion control would be applied to unlined ditches to minimize erosion downstream from potentially increased discharge. ▪ Temporary or long-term preservation of existing vegetation which would avoid any disturbance beyond what would be necessary to widen the existing transportation facilities. ▪ Drainage measures to convey concentrated culvert/storm drain discharge- lined or reinforced drainage swales/ditches, appropriate culvert outfall and inlet structures for improved hydraulic performance	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	▪ Revegetation and installation of temporary erosion protection measures (e.g., erosion control blankets, mulch, coir logs, straw wattles etc.). When practicable, slope stability and erosion concerns would be reduced by maintaining or matching existing slopes.			

AMM WQ-3	Treatment BMPs. Post-construction treatment BMPs would ensure the proposed project does not increase stormwater volumes in the existing stormwater conveyance channels. Treatment BMPs may include but are not limited to the following measures, with infiltration-based measures receiving higher priority, where feasible: Infiltration-Based BMPs: ▪ Biofiltration (bioswales, infiltration trenches/galleries) to reduce sediment and other contaminant runoff ▪ Bioretention facilities (flow-through) to manage stormwater volumes during precipitation ▪ Earthen media filters to retain and filter runoff ▪ Detention or retention (wet) basins to remove soluble pollutants Capture and Treatment BMPs: ▪ Multi-chamber treatment trains to treat stormwater in areas with limited space ▪ Media filters (vault type) to also treat stormwater in small sites that are highly urbanized and may be highly polluted ▪ Dry weather flow diversion to stop or impede water flow during dry weather ▪ Lined detention devices to reduce the velocity of stormwater flow ▪ Gross solids removal devices (in-line filters) to remove litter, debris, and vegetation from stormwater runoff	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM WQ-4	Minimize Impacts to Aquatic Resources. Work within the San Francisco Bay will be limited to the smallest area possible to complete the proposed construction activities. Prior to conducting work within San Francisco Bay, Caltrans will implement a cofferdam spanning planned in-water work areas to avoid water quality impacts and potential impacts to aquatic habitat for wildlife. Additionally, along San Francisco Bay and in the vicinity of the Radio Tower Pond and the Model Yacht Basin, Caltrans will delineate project limits with high-visibility fencing to avoid ground disturbance adjacent to work and access areas.	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM WQ-5	Operations and Maintenance BMPs. Maintenance BMPs are preventative measures to ensure that minimal pollutants are discharged to surface waters via Caltrans' storm water drainage systems. Maintenance activities involve the use of a variety of products. Under normal, intended conditions of use, these materials are not considered pollutants of concern. However, if these products are used, stored, spilled, or disposed of in a way that may cause them to contact storm water or enter storm water drainage systems, they may become a concern for water quality. Maintenance activities are performed in dry weather to minimize impacts to water quality; however, conditions may exist which require these activities be conducted in wet weather. Maintenance BMPs are outlined in the Caltrans Storm Water Quality Handbook, Maintenance Staff Guide.	Draft IS/EA Section 2.2.2	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF GEO-1	With respect to worker safety during construction, OSHA requires employers to comply with hazard-specific safety and health standards. Pursuant to Section 5(a) (1) of OSHA, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. Potential seismic-related hazards to workers during construction are expected to be less than substantial with compliance with the OSHA and Caltrans standard design and construction guidelines.	Draft IS/EA Section 1.0/ Section 2.2.3	Construction	Contractor
PF GEO-2	As part the design phase, expansive soils shall be addressed through treatment or removal as designated on construction plans, to reduce the potential for structural damage. Treatment of expansive soil may include lime or other additives to reduce expansion potential. Expansive soils may also be replaced with a non-expansive fill material to a depth where the seasonal moisture content variation becomes relatively insignificant. The appropriate depth shall be determined by a qualified structural engineer.	Draft IS/EA Section 1.0/ Section 2.2.3	Final Design	Caltrans, Alameda CTC

PF GEO-3	As part of the final design phase, Caltrans requires preparation of structure foundation reports and geotechnical design reports that incorporate the results of subsurface field work and laboratory testing. Site-specific subsurface soil conditions, slope stabilities, and groundwater conditions within the project location would be verified during the preparation of these reports. The identification of site-specific soil conditions within the project location would be used to determine the appropriate final design for foundations that would support the project's structures. If corrosive soils are identified at locations where new subsurface foundations and/or piles are proposed (e.g., bridge foundations, culverts, etc.), specially coated rebar or alternative pipe culverts would be specified in the contract documents. Caltrans' standard design and construction guidelines incorporate engineering standards that address seismic risks. Proposed structures, such as retaining walls and overhead ramp supports, constructed within the geologic study area, would consider seismically induced liquefaction and settlement during the final design phase. The final design phase would also include the evaluation of the Design Response Spectrum, which measures the ground motion or acceleration caused by the input of a vibration from an earthquake at a specific location and can help in understanding how structures would respond to earthquakes in a given place. This information would be used to inform the final design of project structures.	Draft IS/EA Section 1.0/ Section 2.2.3	Final Design	Caltrans, Alameda CTC

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM PAL-1	Paleontological Mitigation Plan. Prior to construction, a Paleontological Mitigation Plan (PMP) shall be drafted and would include provisions for periodic spot checks to check for the presence of unanticipated paleontological resources during deeper excavations. Full-time monitoring shall be required if unanticipated paleontological resources are observed. In the event of unanticipated paleontological resource discoveries during project related activities, work in the immediate vicinity of the discovery shall be halted until it can be evaluated by a qualified paleontologist.	Draft IS/EA Section 2.2.4	Construction	Contractor
PF HW-1	Caltrans specification SSP 14-11.12 (2015B) will be included in the contract specifications and implemented during construction to contain any debris produced during removal of yellow thermoplastic and yellow paint.	Draft IS/EA Section 1.0 and/or Section 2.2.5	Construction	Contractor

AMM HAZ-1	During the final design phase, a Preliminary Site Investigation (PSI) of the project location shall be performed to investigate hazardous materials concerns related to soil, groundwater, and construction materials identified in the Phase I ISA. ▪ A workplan for the PSI shall be submitted to Caltrans for review and approval. The workplan shall include Caltrans guidance for evaluating the potential reuse of ADL-contaminated soils in accordance with the Caltrans and DTSC's Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils. ▪ The completed PSI shall be submitted to Caltrans for review and approval. ▪ All environmental investigations completed for the proposed project shall be provided to the project contractors to incorporate into their Health and Safety and Hazard Communication programs. ▪ Based on the findings and recommendations of the PSI, special soil, groundwater, and construction materials management and disposal procedures for hazardous materials may be required. Additionally, detailed construction worker health and safety measures may be required during construction. ▪ The following components shall be included in the PSI: ▪ Representative soil and/or groundwater sampling shall be conducted by a licensed professional to evaluate the potential presence of hazardous materials in soil and groundwater as a	Draft IS/EA Section 2.2.5	Final Design	Caltrans, Alameda CTC

	part of the PSI. Sampling shall be performed in accordance with the work plan approved by Caltrans and shall address the groundwater contamination concerns identified in Table 2.2-5. ▪ Soil samples collected to evaluate ADL shall be analyzed for total lead and soluble lead to evaluate whether the Department of Toxic Substances Control's variance issued to Caltrans could apply. If applicable, the variance would determine whether the lead-affected soils could be reused as fill within the project location. ▪ Soil and groundwater analytical results shall also be screened against the San Francisco Bay RWQCB's Environmental Screening Levels to determine appropriate actions to ensure construction worker protection and the protection of future site users and the environment. Samples shall also be screened against hazardous waste thresholds to determine soil management options. If soil and/or groundwater contaminants are found, the regulatory authorities (federal, state or local) may require that the soils be removed or specially managed through hazardous waste closure plans, contingency plans, remediation orders, permits, or other administrative actions. The responsible party (i.e., property owner of the contaminated area) would comply with the instructions in those plans, orders, permits, or actions. Based on the areas of groundwater concern identified in the IS/EA, implementation			

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	of special soil and/or groundwater remediation and handling efforts during construction is anticipated to cost approximately $250,000. Implementation of subsurface sampling for the entire project location is anticipated to cost approximately $200,000. The soil and groundwater sampling would likely be a three-month endeavor, assuming property access and approval of the work plan is obtained in a timely fashion.			
AMM HAZ-2	At a minimum, groundwater from dewatering of excavations, if any, would be stored in Baker tank(s) during construction activities and the water would be characterized prior to disposal or recycling. Similarly, excavated soil would be stockpiled for waste characterization and testing. This would be in addition to the pre characterization of groundwater quality during the Preliminary Site Investigation.	Draft IS/EA Section 2.2.5	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM HAZ-3	In accordance with Caltrans protocol, a site safety plan shall be prepared and implemented prior to initiation of any construction/development activities to reduce health and safety hazards to workers and the public. In accordance with Caltrans' Standard Special Provision 07-330, the contractor shall be required to prepare a Lead Compliance Plan to prevent or minimize worker exposure. Lead Compliance Plan measures to address ADL could include removing ADL soil, and/or balancing soil removal and fill to maximize reuse of ADL soil in the project location without generating hazardous waste. Handling of material containing ADL must result in no visible dust migration. An effective means of controlling dust must always be available when handling material in work areas containing ADL at hazardous waste concentrations.	Draft IS/EA Section 2.2.5	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM HAZ-4	Hazardous building materials surveys shall be conducted by a qualified professional. All structures that would be removed or modified shall be inspected. Lead-based paint and asbestos-containing material shall be included in the hazardous materials building surveys. All loose and peeling lead-based paint and asbestos-containing material shall be removed by a certified contractor(s) in accordance with local, state, and federal requirements. All other hazardous building materials shall be removed from structures in accordance with California OSHA regulations.	Draft IS/EA Section 2.2.5	Construction	Caltrans-approved qualified professional
AMM HAZ-5	Yellow thermoplastic and yellow paint striping and markings on existing roadways shall be tested for lead chromate prior to disturbance or removal in accordance with Chapter 7 of Caltrans' Construction Manual. Yellow stripe and pavement markings shall also be treated as a hazardous waste; a lead compliance plan shall be implemented, and residues shall be tested for hazardous-waste classification prior to off-site disposal. This work shall be completed in accordance with Caltrans Standard Special Provision 14 001.	Draft IS/EA Section 2.2.5	Construction	Contractor
AMM HAZ-6	Asphalt-concrete and Portland-cement concrete grindings shall be reused in accordance with San Francisco Bay RWQCB guidelines for Caltrans' projects or transported offsite for recycling or disposal.	Draft IS/EA Section 2.2.5	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF AQ-1	Water or dust palliative shall be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally shall meet a “no visible dust” criterion either at the point of emissions or at the right-of-way line depending on local regulations	Draft IS/EA Section 1.0 and Section 2.2.6	Construction	Contractor

PF AQ-2	Measures to reduce PM10, PM2.5, and diesel particulate matter from construction shall be incorporated to the extent feasible to ensure that short-term health impacts to nearby sensitive receptors are avoided. Such measures may include: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material offsite shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in	Draft IS/EA Section 1.0 and Section 2.2.6	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. At a minimum, all equipment should meet the current ARB fleet standards. ▪ A publicly visible sign with the telephone number and person to contact with the contractor regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations.			

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF NOI-1	▪ Limit paving and demolition activities to between 7:00 a.m. and 7:00 p.m., where feasible. ▪ Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. ▪ Prohibit unnecessary idling (greater than 5 minutes in duration) of internal combustion engines within 100 feet of residences. ▪ Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors, portable power generators, or self-powered lighting systems as far as practical from noise-sensitive receptors. ▪ Utilize “quiet” air compressors and other “quiet” equipment where such technology exists.	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF NOI-2	Inspection of equipment by the contractor will ensure that all equipment onsite is working properly, in good condition, and effectively muffled. All equipment will have sound-control devices no less effective than those provided on the original equipment. Each internal combustion engine used for any purpose on the job or related to the job shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine should be operated on the jobsite without an appropriate muffler. Idling equipment will be turned off.	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Contractor
PF NOI-3	Construction activities shall be minimized in the study area during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours; however, nighttime construction may be desirable (e.g., in commercial areas where businesses may be disrupted during daytime hours) or necessary to avoid major traffic disruption.	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Contractor
PF NOI-4	Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts to study area users are minimal (e.g., restrict the hours to weekdays during daytime hours).	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Contractor
PF NOI-5	The Resident Engineer will be responsible to collect and respond to any complaints related to construction noise.	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Resident Engineer

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF NOI-6	Truck loading, unloading, and hauling operations will be minimized so that noise and vibration are kept to a minimum through the study area to the greatest possible extent.	Draft IS/EA Section 1.0 and Section 2.2.7	Construction	Contractor
PF BIO-1	Adjacent to the riparian area along the Radio Tower Pond and San Francisco Bay, project limits will be delineated to avoid ground disturbance adjacent to work and access areas.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor
PF BIO-2	Implement project site BMPs as follows: • Access routes and the number and size of staging, access, and work areas will be limited to existing paved, gravel, or other previously compacted surfaces as identified in the project plans. Movement of heavy equipment to and from the site will be restricted to established roadways. • Routes and boundaries will be clearly marked prior to initiating ground disturbance. Temporary impacts to water quality during construction will be avoided or minimized by implementing temporary construction site BMPs. These will be implemented during construction to prevent any off-site movement of construction materials, sediment, or debris. Permanent erosion control BMPs will be implemented to prevent silt and sediment from entering drainage facilities and discharging to the Bay.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF BIO-3	Wetlands Protection: The potential for adverse effects to water quality will be avoided by implementing temporary and permanent BMPs outlined in the Caltrans' Stormwater Guide. An SWPPP will be developed for the project and will comply with the Caltrans SWMP. The SWPPP will reference the Caltrans Construction Site BMP Manual, which includes protection measures that are regularly incorporated into projects to prevent and minimize pollutant discharges.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor
PF BIO-4	Water Quality Protection: A water quality inspector will inspect the site after a rain event to ensure that the stormwater BMPs are adequate. Corrective action will be taken per Caltrans Standard Specifications for any identified deficiencies	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor, Water quality inspector
PF BIO-5	Before commencing construction, a qualified Caltrans-approved biologist will conduct an education program for all project personnel. Species to be covered will include but not be limited to nesting birds. The program will also include information on the protected species and the habitats likely to be found within or adjacent to the BSA, requirements of federal and state laws pertaining to these species, identification of measures implemented to conserve the species and habitats within the study area, and distribution of a fact sheet conveying this information to the personnel who may enter the BSA.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Caltrans-approved biologist

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF BIO-6	Trees, shrubs, and native vegetation will be preserved in place to the extent practicable.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor
PF BIO-7	The work in San Francisco Bay will be limited to the smallest area possible to complete the proposed construction activities.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor
PF BIO-8	The names and qualifications of biological monitors will be submitted for agency approval prior to initiating construction activities. Caltrans- and agency-approved biologists will be onsite during work within San Francisco Bay, including installation and removal of the cofferdam, or as otherwise required by regulatory agency permits and approvals.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Caltrans- and agency-approved biologists

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF BIO-9	Before construction of the new outfall, a qualified Caltrans-approved biologist will conduct an education program for all project personnel. Species to be covered will include southern DPS green sturgeon, Sacramento River winter-run Chinook salmon, Central California Coast steelhead, Central Valley steelhead, and longfin smelt. The program will include information on the protected species and the habitats likely to be found within the BSA, requirements of federal and state laws pertaining to these species, identification of measures implemented to conserve the species and habitats within the study area, and distribution of a fact sheet conveying this information to the personnel who may enter the BSA.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Caltrans- and agency-approved biologists

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF BIO-10	Avoid Spread and Introduction of Invasive Plants Caltrans will require the following practices to minimize the potential to introduce or spread invasive plant species: ▪ Prior to initial disturbance, invasive plant locations will be identified, mapped, and cleared. All vegetation material removed will be adequately contained and disposed of in a landfill or incinerated off-site, with caution exercised to prevent seed dispersal. ▪ Construction equipment shall be certified as "weed-free" by Caltrans before entering the construction site. If necessary, onsite wash stations shall be established for construction equipment under the guidance of Caltrans in order to avoid/minimize the spread of invasive plants and/or seed within the construction area. After project fulfillment, areas where vegetation is removed will be hydroseeded with native seed from a local source or planted with landscape species that occur on neighboring areas and maintained per Caltrans standards to reduce the risk of non-native and invasive species establishment. Drought-tolerate and/or native species should be planted in landscaped areas to the extent practicable.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
PF BIO-11	Invasive Species: The landscaping included in the project will not use species listed on the California list of invasive species.	Draft IS/EA Section 1.0 and Section 2.3	Construction	Contractor
AMM BIO-1	Avoid Regulated Trees and Replace Where Tree Removal is Unavoidable - Caltrans will avoid the removal of trees by minimizing the area of disturbance where feasible. A Caltrans-approved arborist will be retained to identify areas where tree pruning activities can occur rather than tree removal. The removed or damaged trees will be replaced within the BSA to the extent possible. Trees will be replaced at a 1:1 ratio with native trees and will be irrigated for up to five years.	Draft IS/EA Section 2.3	Construction	Contractor
AMM BIO-2	Limit In-Water Work Area to Smallest Area Possible - Work within the San Francisco Bay and wetlands will be limited to the smallest area possible to complete the proposed construction activities. Additionally, along San Francisco Bay and in the vicinity of the Radio Tower Pond and the Model Yacht Basin, Caltrans will delineate the Project limits with high-visibility fencing to avoid ground disturbance adjacent to work and access	Draft IS/EA Section 2.3	Construction	Contractor

AMM BIO-3	Nesting Bird Avoidance would avoid initiating vegetation clearing, ground-disturbance, and other construction activities during the nesting bird season (February 1 to September 30) to the extent feasible. Caltrans will remove trees, inactive nests, and other nesting substrate (e.g., trees, shrubs, structures, emergent vegetation) and install nest exclusion measures (e.g., non-mono-filament netting, bird spikes, plastic sheeting, mesh, and fill cavities) during non-nesting season (October 1 to January 31) to the extent possible. Demolition of structures will be conducted during the non-nesting season to the extent feasible. If initiation of vegetation clearing, ground-disturbance, or other construction activities during the nesting bird season is unavoidable, Caltrans will retain a qualified biologist with experience conducting nesting bird surveys. The biologist will conduct a pre-construction survey for active bird nests no more than three days prior to the start of construction activities. The biologist will conduct a survey of suitable nesting habitat within the BSA and an immediately surrounding 250-foot area during the nesting season to ensure that no active bird nests (including those belonging to Alameda song sparrow or saltmarsh common yellowthroat) are present prior to vegetation removal or project-related disturbance, whichever occurs first. If an active nest is identified, a no-disturbance buffer will be established until the young are no longer dependent on the nest for survival as determined by the biologist. The no-disturbance buffer is generally 250 feet for raptors and 50	Draft IS/EA Section 2.3	Construction	Contractor, CDFW, Qualified biologist

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
	feet for other birds. The no-disturbance buffer shall be 100 feet around active nests of Alameda song sparrow and saltmarsh common yellowthroat. If construction activities stop for a period of five days or more during the nesting bird season within a portion of the proposed project (beyond 250 feet of ongoing construction activities), a subsequent nesting bird survey will be conducted by a biologist no more than three days prior to resumption of construction at that location. Should work within the no-disturbance buffer of an active nest be necessary, the biologist will monitor work occurring within no-disturbance buffer around an active nest to determine if the nest or nesting behavior is affected by construction activities. If the biologist determines that nesting behavior is affected by construction activities, then construction within the no-disturbance buffer will cease immediately and equipment and personnel will leave the buffer. No-disturbance buffer modifications can be made based on the professional opinion and observations of the biologist, the degree of background noise, and the physical situation of the nest through coordination between the biologist and CDFW.			
AMM BIO-4	No In-Water Work During the Wet Season – Caltrans would avoid conducting in-water work during the typical wet season, between November 1 and March 31.	Draft IS/EA Section 2.3	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
AMM BIO-5	Cofferdams Will Be Utilized to Create a Dry Work Area – Prior to conducting work within San Francisco Bay Area, Caltrans will require a cofferdam spanning planned in-water work areas to create a dry work area and to avoid water quality impacts and potential impacts to aquatic habitat for wildlife. Cofferdams will be installed at low tide to minimize the potential for fish stranding in the work area. If installation of the cofferdam is anticipated to take more than one day, fish could potentially become stranded within the partially installed cofferdam during normal tidal cycles. A qualified Caltrans-approved biologist would work with the contractor to install the cofferdam while minimizing the potential for fish stranding. If listed threatened or endangered species are identified, the qualified Caltrans approved biologist will consult with CDFW and/ or NMFS.	Draft IS/EA Section 2.3	Construction	Contractor
AMM BIO-6	No In-water Work in San Francisco Bay during Fish Migration Periods (November and June) – Caltrans will not conduct any in-water work within the San Francisco Bay between November and June to avoid potential impacts on protected fish (steelhead, Chinook salmon, green sturgeon, and longfin smelt) during peak migration periods to suitable spawning habitat. No pile driving activities will be conducted at night and any night lighting used will be shielded to prevent fugitive light from being cast into the San Francisco Bay or natural vegetation outside of the Project limits	Draft IS/EA Section 2.3	Construction	Contractor

ID No.	Task and Brief Description	Source	Project Timing	Responsible Staff
Compensatory Mitigation Measure BIO-1	Caltrans will provide compensatory mitigation to offset the unavoidable impacts to aquatic resources (i.e., new outfall). Compensatory mitigation would occur at a minimum one-to-one ratio for permanent impacts (impact area to compensation area) to assure no-net-loss of waters of the U.S., and the final mitigation ratio will ultimately be determined through Caltrans' coordination with the USACE during the Section 404 permitting process in accordance with permit requirements. Compensatory mitigation may occur through one or a combination of: on- or off-site mitigation, the purchase of mitigation bank credits, and/or payment of an in-lieu fee. On- and off-site mitigation options include preservation, enhancement, and restoration of the values and functions of wetlands and other waters of the U.S.	Draft IS/EA Section 2.3	Construction	Contractor

Appendix D: Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Consultation Code: 08ESMF00-2020-SLI-1414
Event Code: 08ESMF00-2020-E-04485
Project Name: Ashby-80

July 3, 2021

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, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) 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 Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

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:

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

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:

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

Project Summary

Consultation Code: 08ESMF00-2020-SLI-1414

Event Code: 08ESMF00-2020-E-04485

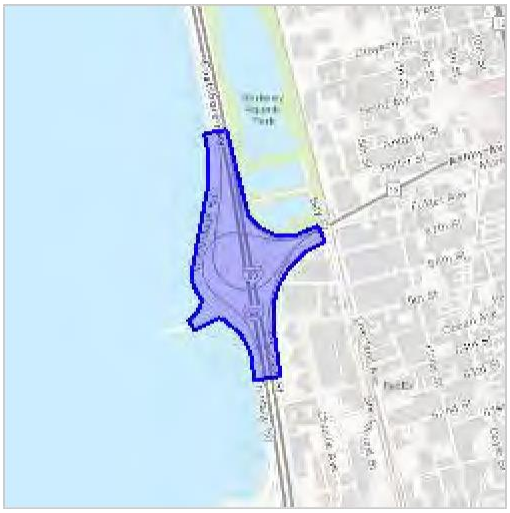
Project Name: Ashby-80

Project Type: TRANSPORTATION

Project Description: road improvements

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.84826904431802N122.29865693725202W



Counties: Alameda, CA

Endangered Species Act Species

There is a total of 12 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.

---

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

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 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf	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
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

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
Santa Cruz Tarplant *Holocarpha macradenia* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6832	Threatened

Critical habitats

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

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: July 3, 2021
Consultation Code: 08FBDT00-2020-SLI-0132
Event Code: 08FBDT00-2020-E-00298
Project Name: Ashby-80

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: 08FBDT00-2020-SLI-0132

Event Code: 08FBDT00-2020-E-00298

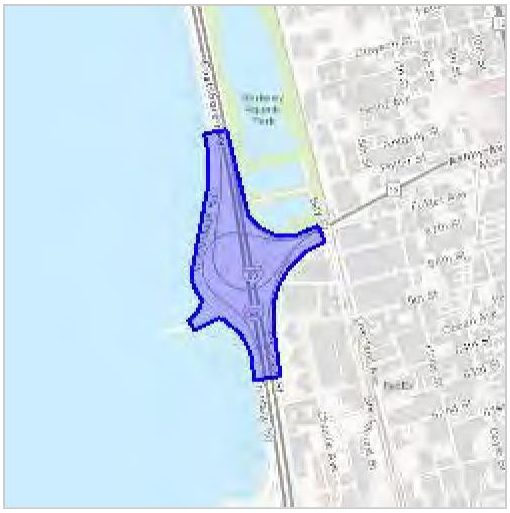
Project Name: Ashby-80

Project Type: TRANSPORTATION

Project Description: road improvements

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.84826904431802N122.29865693725202W



Counties: Alameda, 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.

---

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.

National Marine Fisheries Service List

Quad Name	**Oakland West**
Quad Number	**37122-G3**
Date	July 3, 2021
Source	Nmfs_wcr_ca_species_list_december_2016.kmz

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) - **X**
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat - **X**
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - **X**
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - X
Chinook Salmon EFH - X
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds - **X**

Quad Name **Richmond**
Quad Number **37122-H3**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) - **X**
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat - **X**
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - **X**
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - X
Chinook Salmon EFH - X
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds - **X**

Quad Name **Oakland East**
Quad Number **37122-G2**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - **X**
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**
Chinook Salmon EFH - **X**
Groundfish EFH - **X**
Coastal Pelagics EFH - **X**
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds - **X**

Quad Name **Hunters Point**
Quad Number **37122-F3**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - **X**
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**
Chinook Salmon EFH - **X**
Groundfish EFH - **X**
Coastal Pelagics EFH - **X**
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds - **X**

Quad Name **San Leandro**
Quad Number **37122-F2**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - **X**
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**
Chinook Salmon EFH - **X**
Groundfish EFH - **X**
Coastal Pelagics EFH - **X**
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds - **X**

Quad Name **San Francisco South**
Quad Number **37122-F4**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) - **X**
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat - **X**
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) - **X**
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat - X

ESA Sea Turtles

East Pacific Green Sea Turtle (T) - X
Olive Ridley Sea Turtle (T/E) - X
Leatherback Sea Turtle (E) - X
North Pacific Loggerhead Sea Turtle (E) - X

ESA Whales

Blue Whale (E) - X
Fin Whale (E) - X
Humpback Whale (E) - X
Southern Resident Killer Whale (E) - X
North Pacific Right Whale (E) - XSei
Whale (E) - X
Sperm Whale (E) - X

ESA Pinnipeds

Guadalupe Fur Seal (T) - X
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - X
Chinook Salmon EFH - X
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans - X

MMPA Pinnipeds - X

Quad Name **San Francisco North**
Quad Number **37122-G4**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) - **X**
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) - **X**
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat - **X**
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat - **X**
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - **X**
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) - **X**
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) - X
Olive Ridley Sea Turtle (T/E) - X
Leatherback Sea Turtle (E) - X
North Pacific Loggerhead Sea Turtle (E) - X

ESA Whales

Blue Whale (E) - X
Fin Whale (E) - X
Humpback Whale (E) - X
Southern Resident Killer Whale (E) - X
North Pacific Right Whale (E) - XSei
Whale (E) - X
Sperm Whale (E) - X

ESA Pinnipeds

Guadalupe Fur Seal (T) - X
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - X
Chinook Salmon EFH - X
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans - X

MMPA Pinnipeds - X

Quad Name **San Quentin**
Quad Number **37122-H4**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) - **X**
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) - **X**
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat - **X**
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat - **X**
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - **X**
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - X
Chinook Salmon EFH - X
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds - **X**

uad Name **Briones Valley**
Quad Number **37122-H2**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

California Natural Diversity Database Species List

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (San Francisco North (3712274) OR San Francisco South (3712264) OR Oakland East (3712272) OR Oakland West (3712273) OR Hunters Point (3712263) OR San Leandro (3712262) OR San Quentin (3712284) OR Richmond (3712283) OR Briones Valley (3712282))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Adela oplerella Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
Allium peninsulare var. franciscanum Franciscan onion	PMLIL021R1	None	None	G5T2	S2	1B.2
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Amorpha californica var. napensis Napa false indigo	PDFAB08012	None	None	G4T2	S2	1B.2
Amsinckia lunaris bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Archoplites interruptus Sacramento perch	AFCQB07010	None	None	G2G3	S1	SSC
Arctostaphylos franciscana Franciscan manzanita	PDERI040J3	Endangered	None	G1	S1	1B.1
Arctostaphylos imbricata San Bruno Mountain manzanita	PDERI040L0	None	Endangered	G1	S1	1B.1
Arctostaphylos montana ssp. ravenii Presidio manzanita	PDERI040J2	Endangered	Endangered	G3T1	S1	1B.1
Arctostaphylos montaraensis Montara manzanita	PDERI042W0	None	None	G1	S1	1B.2
Arctostaphylos pacifica Pacific manzanita	PDERI040Z0	None	Endangered	G1	S1	1B.1
Arctostaphylos pallida pallid manzanita	PDERI04110	Threatened	Endangered	G1	S1	1B.1
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Arenaria paludicola marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Asio flammeus short-eared owl	ABNSB13040	None	None	G5	S3	SSC
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Banksula incredula incredible harvestman	ILARA14100	None	None	G1	S1	
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
Branta hutchinsii leucopareia cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	G5T3	S3	WL
Caecidotea tomalensis Tomales isopod	ICMAL01220	None	None	G2	S2S3	
Callophrys mossii bayensis San Bruno elfin butterfly	IILEPE2202	Endangered	None	G4T1	S1	
Calochortus pulchellus Mt. Diablo fairy-lantern	PMLIL0D160	None	None	G2	S2	1B.2
Calochortus tiburonensis Tiburon mariposa-lily	PMLIL0D1C0	Threatened	Threatened	G1	S1	1B.1
Calystegia purpurata ssp. saxicola coastal bluff morning-glory	PDCON040D2	None	None	G4T2T3	S2S3	1B.2
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
Carex praticola northern meadow sedge	PMCYP03B20	None	None	G5	S2	2B.2
Castilleja affinis var. neglecta Tiburon paintbrush	PDSCR0D013	Endangered	Threatened	G4G5T1T2	S1S2	1B.2
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
Centromadia parryi ssp. parryi pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2

Chorizanthe cuspidata var. cuspidata San Francisco Bay spineflower	PDPGN04081	None	None	G2T1	S1	1B.2
Chorizanthe robusta var. robusta robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Cicuta maculata var. bolanderi Bolander's water-hemlock	PDAPI0M051	None	None	G5T4T5	S2?	2B.1
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Cirsium andrewsii Franciscan thistle	PDAST2E050	None	None	G3	S3	1B.2
Cirsium hydrophilum var. vaseyi Mt. Tamalpais thistle	PDAST2E1G2	None	None	G2T1	S1	1B.2
Cirsium occidentale var. compactum compact cobwebby thistle	PDAST2E1Z1	None	None	G3G4T2	S2	1B.2
Clarkia concinna ssp. automixa Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
Clarkia franciscana Presidio clarkia	PDONA050H0	Endangered	Endangered	G1	S1	1B.1
Coastal Terrace Prairie Coastal Terrace Prairie	CTT41100CA	None	None	G2	S2.1	
Collinsia corymbosa round-headed Chinese-houses	PDSCR0H060	None	None	G1	S1	1B.2
Collinsia multicolor San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
Dicamptodon ensatus California giant salamander	AAAAH01020	None	None	G3	S2S3	SSC
Dipodomys heermanni berkeleyensis Berkeley kangaroo rat	AMAFD03061	None	None	G3G4T1	S1	
Dirca occidentalis western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
Dufourea stagei Stage's dufourine bee	IIHYM22010	None	None	G1G2	S1	
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	

Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Enhydra lutris nereis southern sea otter	AMAJF09012	Threatened	None	G4T2	S2	FP
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Eriogonum luteolum var. caninum Tiburon buckwheat	PDPGN083S1	None	None	G5T2	S2	1B.2
Eryngium jepsonii Jepson's coyote-thistle	PDAPI0Z130	None	None	G2	S2	1B.2
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
Eumetopias jubatus Steller (=northern) sea-lion	AMAJC03010	Delisted	None	G3	S2	
Euphydryas editha bayensis Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S1	
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Fissidens pauperculus minute pocket moss	NBMUS2W0U0	None	None	G3?	S2	1B.2
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
Gilia capitata ssp. chamissonis blue coast gilia	PDPLM040B3	None	None	G5T2	S2	1B.1
Gilia millefoliata dark-eyed gilia	PDPLM04130	None	None	G2	S2	1B.2
Grindelia hirsutula var. maritima San Francisco gumplant	PDAST470D3	None	None	G5T1Q	S1	3.2
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Helianthella castanea Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
Helminthoglypta nickliniana bridgesi Bridges' coast range shoulderband	IMGASC2362	None	None	G3T1	S1S2	
Hemizonia congesta ssp. congesta congested-headed hayfield tarplant	PDAST4R065	None	None	G5T2	S2	1B.2
Hesperevax sparsiflora var. brevifolia short-leaved evax	PDASTE5011	None	None	G4T3	S2	1B.2
Hesperolinon congestum Marin western flax	PDLIN01060	Threatened	Threatened	G1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Heteranthera dubia water star-grass	PMPON03010	None	None	G5	S2	2B.2
Hoita strobilina Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
Holocarpha macradenia Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
Horkelia cuneata var. sericea Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
Horkelia marinensis Point Reyes horkelia	PDROS0W0B0	None	None	G2	S2	1B.2
Hydroporus leechi Leech's skyline diving beetle	IICOL55040	None	None	G1?	S1?	
Hydroprogne caspia Caspian tern	ABNNM08020	None	None	G5	S4	
Hypogymnia schizidiata island tube lichen	NLT0032640	None	None	G2G3	S2	1B.3
Ischnura gemina San Francisco forktail damselfly	IIODO72010	None	None	G2	S2	
Isocoma arguta Carquinez goldenbush	PDAST57050	None	None	G1	S1	1B.1
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
Lasiurus blossevillii western red bat	AMACC05060	None	None	G5	S3	SSC
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4	
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Layia carnosa beach layia	PDAST5N010	Endangered	Endangered	G2	S2	1B.1
Leptosiphon rosaceus rose leptosiphon	PDPLM09180	None	None	G1	S1	1B.1
Lessingia germanorum San Francisco lessingia	PDAST5S010	Endangered	Endangered	G1	S1	1B.1
Lichnanthe ursina bumblebee scarab beetle	IICOL67020	None	None	G2	S2	
Malacothamnus arcuatus	PDMAL0Q0E0	None	None	G2Q	S2	1B.2

arcuate bush-mallow					
Masticophis lateralis euryxanthus	ARADB21031	Threatened	Threatened	G4T2	S2
Alameda whipsnake					

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Meconella oregana Oregon meconella	PDPAP0G030	None	None	G2G3	S2	1B.1
Melospiza melodia maxillaris Suisun song sparrow	ABPBXA301K	None	None	G5T3	S3	SSC
Melospiza melodia pusillula Alameda song sparrow	ABPBXA301S	None	None	G5T2?	S2S3	SSC
Melospiza melodia samuelis San Pablo song sparrow	ABPBXA301W	None	None	G5T2	S2	SSC
Microcina leei Lee's micro-blind harvestman	ILARA47040	None	None	G1	S1	
Microcina tiburona Tiburon micro-blind harvestman	ILARA47060	None	None	G1	S1	
Microseris paludosa marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
Microtus californicus sanpabloensis San Pablo vole	AMAFF11034	None	None	G5T1T2	S1S2	SSC
Monardella sinuata ssp. nigrescens northern curly-leaved monardella	PDLAM18162	None	None	G3T2	S2	1B.2
Monolopia gracilens woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
Mylopharodon conocephalus hardhead	AFCJB25010	None	None	G3	S3	SSC
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
Northern Maritime Chaparral Northern Maritime Chaparral	CTT37C10CA	None	None	G1	S1.2	
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
Pentachaeta bellidiflora white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
Phalacrocorax auritus double-crested cormorant	ABNFD01020	None	None	G5	S4	WL

Plagiobothrys chorisianus var. chorisianus Choris' popcornflower	PDBOR0V061	None	None	G3T1Q	S1	1B.2
Plagiobothrys diffusus San Francisco popcornflower	PDBOR0V080	None	Endangered	G1Q	S1	1B.1
Plagiobothrys glaber hairless popcornflower	PDBOR0V0B0	None	None	GH	SH	1A

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Plebejus icarioides missionensis Mission blue butterfly	IILEPG801A	Endangered	None	G5T1	S1	
Polemonium carneum Oregon polemonium	PDPLM0E050	None	None	G3G4	S2	2B.2
Polygonum marinense Marin knotweed	PDPGN0L1C0	None	None	G2Q	S2	3.1
Rallus obsoletus obsoletus California Ridgway's rail	ABNME05011	Endangered	Endangered	G5T1	S1	FP
Rana boylii foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Reithrodontomys raviventris salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Rynchops niger black skimmer	ABNNM14010	None	None	G5	S2	SSC
Sanicula maritima adobe sanicle	PDAPI1Z0D0	None	Rare	G2	S2	1B.1
Scapanus latimanus insularis Angel Island mole	AMABB02032	None	None	G5THQ	SH	
Scapanus latimanus parvus Alameda Island mole	AMABB02031	None	None	G5THQ	SH	SSC
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Serpentine Bunchgrass Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Silene scouleri ssp. scouleri Scouler's catchfly	PDCAR0U1MC	None	None	G5T4T5	S2S3	2B.2
Silene verecunda ssp. verecunda San Francisco campion	PDCAR0U213	None	None	G5T1	S1	1B.2
Sorex vagrans halicoetes salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
Spergularia macrotheca var. longistyla long-styled sand-spurrey	PDCAR0W062	None	None	G5T2	S2	1B.2
Speyeria callippe callippe callippe silverspot butterfly	IILEPJ6091	Endangered	None	G5T1	S1	
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Stebbinsoseris decipiens Santa Cruz microseris	PDAST6E050	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
Streptanthus glandulosus ssp. niger Tiburon jewelflower	PDBRA2G0T0	Endangered	Endangered	G4T1	S1	1B.1
Stuckenia filiformis ssp. alpina slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
Suaeda californica California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thaleichthys pacificus eulachon	AFCHB04010	Threatened	None	G5	S3	
Thamnophis sirtalis tetrataenia San Francisco gartersnake	ARADB3613B	Endangered	Endangered	G5T2Q	S2	FP
Trachusa gummifera San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	G1	S1	
Trifolium amoenum two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Triphysaria floribunda San Francisco owl's-clover	PDSCR2T010	None	None	G2?	S2?	1B.2
Triquetrella californica coastal triquetrella	NBMUS7S010	None	None	G2	S2	1B.2
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Vespericola marinensis Marin hesperian	IMGASA4140	None	None	G2	S2	
Viburnum ellipticum oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3
Xanthocephalus xanthocephalus yellow-headed blackbird	***Zapus trinotatus orarius*** Point Reyes jumping mouse					

ABPBXB3010	None None G5 S3 SSC
AMAFH01031	None None G5T1T3Q S1S3 SSC

Record Count: 164

California Native Plant Society Inventory of Rareand Endangered Plants

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

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

Search Criteria

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

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
Arctostaphylos pallida	pallid manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	1B.1	S1	G1
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
Calochortus pulchellus	Mt. Diablo fairy-lantern	Liliaceae	perennial bulbiferous herb	Apr-Jun	1B.2	S2	G2
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
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
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	
Clarkia concinna ssp. automixa	Santa Clara red ribbons	Onagraceae	annual herb	(Apr)May-Jun(Jul)	4.3	S3	G5T3	
	Presidio clarkia	Onagraceae	annual herb	May-Jul	1B.1	S1	G1	

Clarkia franciscana							
Dirca occidentalis	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar(Apr)	1B.2	S2	G2
Eriogonum luteolum var. caninum	Tiburon buckwheat	Polygonaceae	annual herb	May-Sep	1B.2	S2	G5T2
Eryngium jepsonii	Jepson's coyote thistle	Apiaceae	perennial herb	Apr-Aug	1B.2	S2?	G2?
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
Helianthella castanea	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
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?
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
Leptosiphon acicularis	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	4.2	S4?	G4?
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
Monardella antonina ssp. antonina	San Antonio Hills monardella	Lamiaceae	perennial rhizomatous herb	Jun-Aug	3	S1S3	G4T1T3Q
Monolopia gracilens	woodland woolythreads	Asteraceae	annual herb	(Feb)Mar-Jul	1B.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

Clarkia franciscana							
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
Spergularia macrotheca var. longistyla	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May(Jun)	1B.2	S2	G5T2
	most beautiful	Brassicaceae	annual herb	(Mar)Apr-	1B.2	S2	G2T2

Streptanthus albidus ssp. peramoenus	jewelflower			Sep(Oct)			
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
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?
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 27 May 2020].

Special-status Plant Species

Special-status Plant Species

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Allium peninsulare var. franciscanum Franciscan onion	-/-/1B.2	Broadleafed upland forest, chaparral, cismontane woodland. Openings in forest or woodland or in chaparral. 30-735 m	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Amorpha californica var. napensis Napa false indigo	-/-/1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 3-795 m.	**Not likely to occur.** Suitable cismontane woodland and coastal bluff scrub habitat are absent in the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. Additionally, the BSA is outside of the known range for this species. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Amsinckia lunaris bent-flowered fiddleneck	-/-/1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 3-795 meters above mean sea level (amsl). Blooms May-June.	**Not likely to occur**. Suitable cismontane woodland and coastal bluff scrub habitat are absent in the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. One CNDDB occurrence record is known from within two miles of the BSA observed in 1883, centered on downtown Oakland. Area is developed and no habitat remains.	N/A
Arctostaphylos franciscana Franciscan manzanita	FE/-/1B.1	Chaparral. Serpentine outcrops in chaparral. 30-215 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Arctostaphylos imbricata San Bruno Mountain manzanita	-/SE/1B.1	Chaparral, coastal scrub. Mostly known from a few sandstone outcrops in chaparral. 275-305 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Arctostaphylos montana ssp. ravenii Presidio manzanita	FE/SE/1B.1	Chaparral, coastal prairie, coastal scrub. Open, rocky serpentine slopes. 20-215 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Arctostaphylos montaraensis Montara manzanita	-/-/1B.2	Chaparral, coastal scrub. Slopes and ridges. 270-460 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Arctostaphylos pacifica Pacific manzanita	-/SE/1B.1	Coastal scrub, chaparral. 320 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Arctostaphylos pallida pallid manzanita	FT/SE/1B.1	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub. Grows on uplifted marine terraces on siliceous shale or thin chert. May require fire. 180-460 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Arenaria paludicola marsh sandwort	FE/SE/1B.1	Marshes and swamps. Growing up through dense mats of *Typha, Juncus, Scirpus*, etc. in freshwater marsh. Sandy soil. 3-170 m.	**Not likely to occur.** Marsh habitat within the BSA is estuarine, and not suitable for this species. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Astragalus tener var. Tener alkali milk-vetch	-/-/1B.2	Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 1-170 meters (amsl). Blooms March-June.	**Not likely to occur.** Suitable vernal pool habitat is absent in the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. One CNDDB occurrence record is known from within two miles of the BSA observed in 1882. Area is fully developed and no habitat remains.	N/A
Calochortus pulchellus Mt. Diablo fairy-lantern	-/-/1B.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. On wooded and brushy slopes. 30-915 meters. Blooms April through June.	**Not likely to occur.** Suitable chaparral and cismontane and riparian woodland habitats are absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. Additionally, the BSA is outside of the known range for this species. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Calochortus tiburonensis Tiburon mariposa-lily	FT/ST/1B.2	Valley and foothill grassland. On open, rocky, slopes in serpentine grassland. 50-150 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. Additionally, the BSA is outside of the known range for this species. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Calystegia purpurata ssp. saxicola coastal bluff morning-glory	-/-/1B.2	Coastal dunes, coastal scrub, coastal bluff scrub, north coast coniferous forest. 10-105 meters. Blooms March through September.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Carex comosa bristly sedge	-/-/2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. -5-1,620 meters. Blooms May through September.	**Not likely to occur.** Marsh habitat within the BSA is estuarine, and not suitable for this species. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Carex praticola northern meadow sedge	-/-/2B.2	Meadows and seeps. Moist to wet meadows. 15-3200 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Castilleja affinis var. neglecta Tiburon paintbrush	FE/ST/1B.2	Valley and foothill grassland. Rocky serpentine sites. 120-400 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	
Centromadia parryi ssp. congdonii Congdon's tarplant	-/-/1B.1	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 0-230 meters (amsl). Blooms May-October.	**Not likely to occur.** Marginally suitable grassland habitat is present from the BSA, yet the limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Centromadia parryi ssp. parryi pappose tarplant	-/-/1B.2	Chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkaline sites. 1-500 m.	**Not likely to occur.** Marginally suitable grassland and salt marsh habitat is present from the BSA, yet the areas within the BSA is relatively fragmented and disturbed. Additionally, the BSA is outside of the known range for this species. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Chloropyron maritimum ssp. palustre Point Reyes salty bird's beak	-/-/1B.2	Coastal salt marsh. Usually in coastal salt marsh with *Salicornia, Distichlis, Jaumea, Spartina*, etc. 0-115 meters. Blooms June through October.	**Not likely to occur.** Small patches of coastal salt marsh habitat occurs on the margins of the Radio Tower Pond and Model Yacht Basin. The isolated and previously disturbed nature of these areas make occurrence of this species unlikely. Two possibly extirpated CNDDB occurrences are known from within two miles of the BSA, observed in 1880 and 1906.	N/A
Chorizanthe cuspidata var. cuspidata San Francisco Bay spineflower	-/-/1B.2	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. Closely related to *C. pungens*. Sandy soil on terraces and slopes. 3-215 meters. Blooms April through August.	**Not likely to occur.** Suitable habitat is absent from the BSA. One extirpated CNDDB occurrence is known from within two miles of the BSA observed in 1881.	N/A
Chorizanthe robusta var. robusta robust spineflower	FE/-/1B.1	Cismontane woodland, coastal dunes, coastal scrub, chaparral. Sandy terraces and bluffs or in loose sand. 9-245 meters. Blooms April through September.	**Not likely to occur.** Suitable habitat is absent from the BSA. One extirpated CNDDB occurrence is known from within two miles of the BSA observed in 1881.	**No effect.**
Cicuta maculate var. bolanderi Bolander's waterhemlock	-/-/2B.1	Marshes and swamps, fresh or brackish water. 0-200 meters. Blooms July through September.	**Not likely to occur.** Small patches of brackish marsh habitat occurs on the margins of the Radio Tower Pond and Model Yacht Basin. The isolated and previously disturbed nature of these areas make occurrence of this species unlikely. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Cirsium andrewsii Franciscan thistle	-/-/1B.2	Coastal bluff scrub, broadleaved upland forest, coastal scrub, coastal prairie. Sometimes serpentine seeps. 0-150 meters. Blooms March through July.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA	N/A
Cirsium hydrophilum var. vaseyi Mt. Tamalpais thistle	-/-/1B.2	Broadleafed upland forest, chaparral, meadows and seeps. Serpentine seeps and streams in chaparral and woodland. 180-610 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. Additionally, the BSA is outside of the known range for this species. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Cirsium occidentale var. compactum compact cobwebby thistle	-/-/1B.2	Chaparral, coastal dunes, coastal prairie, coastal scrub. On dunes and on clay in chaparral; also in grassland. 5-245 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. Additionally, the BSA is outside of the known range for this species. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Clarkia concinna ssp. automixa Santa Clara red ribbons	- / - /4.3	Cismontane woodland, chaparral. On slopes and near drainages. 90-1500 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Clarkia franciscana Presidio clarkia	FE/SE/1B.1	Coastal scrub, valley and foothill grassland. Serpentine outcrops in grassland or scrub. 20-305 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Collinsia corymbosa round-headed Chinesehouses	-/-/1B.2	Coastal dunes. 0-30 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Collinsia multicolor San Francisco collinsia	-/-/1B.2	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. 10-275 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Dirca occidentalis western leatherwood	-/-/1B.2	Broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen & foothill woodland communities. 20-640 meters (amsl). Blooms January-March.	**Not likely to occur.** Suitable chaparral and woodland habitat are absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Eriogonum luteolum var. caninum Tiburon buckwheat	-/-/1B.2	Chaparral, valley and foothill grassland, cismontane woodland, coastal prairie. Serpentine soils; sandy to gravelly sites. 60-640 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Eryngium jepsonii Jepson's coyote-thistle	-/-/1B.2	Vernal pools, valley and foothill grassland. Clay. 3-305 meters (amsl). Blooms April-August.	**Not likely to occur.** Suitable vernal pool habitat is absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Extriplex joaquinana San Joaquin spearscale	-/-/1B.2	Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with saltgrass (*Distichlis spicata*), alkali heath (*Frankenia*), and others. 1-835 meters (amsl). Blooms April-October.	**Not likely to occur.** Suitable chenopod scrub and alkali meadow habitat are absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. One possibly extirpated CNDDB occurrence is known from within two miles of the BSA observed in 1929.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Fissidens pauperculus minute pocket moss	-/-/1B.2	North coast coniferous forest. Moss growing on damp soil along the coast. In dry streambeds and on stream banks. 30-1025 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Fritillaria liliacea fragrant fritillary	-/-/1B.2	In cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland. Often associated with serpentine soils. 3-410 meters (amsl). Blooms February-April.	**Not likely to occur.** Suitable coastal prairie, scrub, and woodland habitat are absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Gilia capitate ssp. chamissonis blue coast gilia	-/-/1B.1	Coastal dunes, coastal scrub. 3-200 meters. Blooms April through July.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA	N/A
Gilia millefoliata dark-eyed gilia	-/-/1B.2	Coastal dunes. 1-60 meters. Blooms April through July.	**Not likely to occur.** Suitable habitat is absent from the BSA. One extirpated CNDDB occurrence is known from within two miles of the BSA observed in 1863.	N/A
Grindelia hirsutula var. maritima San Francisco gumplant	- / - /3.2	Coastal scrub, coastal bluff scrub, valley and foothill grassland. Sandy or serpentine slopes, sea bluffs. 15-305 m.	**Not likely to occur.** Suitable coastal prairie and coastal bluff scrub habitat are absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Helianthella castanea Diablo helianthella	-/-/1B.2	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Usually in chaparral/oak woodland interface in rocky, azonal soils. Often in partial shade. 45-1070 meters (amsl). Blooms March-June.	**Not likely to occur.** Suitable chaparral and cismontane woodland habitat are absent from the BSA. Limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Hemizonia congesta ssp. congesta congested-headed hayfield tarplant	-/-/1B.2	Valley and foothill grassland. Grassy valleys and hills, often in fallow fields; sometimes along roadsides. 5-520 m.	**Not likely to occur.** Limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Hesperevax sparsiflora var. brevifolia short-leaved evax	-/-/1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Sandy bluffs and flats. 0-640 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Hesperolinon congestum Marin western flax	FT/ST/1B.1	Chaparral, valley and foothill grassland. In serpentine barrens and in serpentine grassland and chaparral. 60-400 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Heteranthera dubia water star-grass	-/-/2B.2	Marshes and swamps. Alkaline, still or slow-moving water. Requires a pH of 7 or higher, usually in slightly eutrophic waters. 15-1,510 meters. Blooms July through October.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Hoita strobilina Loma Prieta hoita	-/-/1B.1	Chaparral and oak woodland. < 600 meters (amsl). Blooms June-August.	**Not likely to occur.** Suitable chaparral and oak woodland habitat are absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Holocarpha macradenia Santa Cruz tarplant	FT/SE/1B.1	Coastal prairie, coastal scrub, valley and foothill grassland. Light, sandy soil or sandy clay; often with nonnatives. 10-220 meters (amsl). Blooms June-October.	**Not likely to occur.** Suitable grassland habitat is present in the BSA, yet the limited grassland cover within the BSA is relatively fragmented and disturbed. One extirpated CNDDB occurrence is known from within two miles of the BSA observed in 1916.	**No effect.**
Horkelia cuneate var. sericea Kellogg's horkelia	-/-/1B.1	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral. Old dunes, coastal sandhills; openings. 5-215 meters. Blooms April through September.	**Not likely to occur.** Suitable habitat is absent from the BSA. One possibly extirpated CNDDB occurrence is known from within two miles of the BSA observed in 1863.	N/A
Horkelia marinensis Point Reyes horkelia	-/-/1B.2	Coastal dunes, coastal prairie, coastal scrub. Sandy flats and dunes near coast; in grassland or scrub plant communities. 2-775 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Hypogymnia schizidiata island tube lichen	- / - / 1B.3	Chaparral, closed-cone coniferous forest. On bark and wood of hardwoods and conifers. 255-545 m.	**Not expected.** Tree species within the BSA are largely planted, and are not anticipated to support this lichen. No CNDDB occurrence records are known from within two miles of the BSA	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Isocoma arguta Carquinez goldenbush	-/-/1B.1	Valley and foothill grassland. Alkaline soils, flats, lower hills. On low benches near drainages and on tops and sides of mounds in swale habitat. 1-50 meters. Blooms August through December.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Lasthenia conjugens Contra Costa goldfields	FE/-/1B.1	Vernal pools, swales, low depressions, in open grassy areas. 1-470 meters (amsl). Blooms March-June.	**Not likely to occur.** Suitable vernal pool, swale, and low depression habitat are absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Layia carnosa beach layia	FE/SE/1B.1	Coastal dunes, coastal scrub. On sparsely vegetated, semi-stabilized dunes, usually behind foredunes. 0-30 meters. Blooms March through July.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Leptosiphon rosaceus rose leptosiphon	-/-/1B.1	Coastal bluff scrub. 10-140 meters. Blooms April through July.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Lessingia germanorum San Francisco lessingia	-/-/1B.1	Coastal scrub. On remnant dunes. Open sandy soils relatively free of competing plants. 3-155 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA	N/A
Malacothamnus arcuatus arcuate bushmallow	-/-/1B.1	Chaparral, cismontane woodland. Gravelly alluvium. 1-735 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Meconella oregana Oregon meconella	-/-/1B.1	Coastal prairie, coastal scrub. Open, moist places. 60-640 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Microseris paludosa marsh microseris	-/-/1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. 3-610 m.		N/A
Monardella sinuata ssp. nigrescens northern curly-leaved monardella	-/-/1B.2	Coastal dunes, coastal scrub, chaparral, lower montane coniferous forest. Sandy soils. 10-245 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Monolopia gracilens woodland woollythreads	-/-/1B.2	Serpentine grassland, open chaparral, oak woodland. 100-1200 meters (amsl). Blooms March-July	**Not likely to occur.** Suitable chaparral and woodland habitat are absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed, and is not serpentine. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Pentachaeta bellidiflora white-rayed pentachaeta	FE/SE/1B.1	Valley and foothill grassland, cismontane woodland. Open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock. 35-610 meters above msl. Blooms March-May.	**Not likely to occur.** Suitable chaparral and woodland habitat are absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed, and is not serpentine. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Plagiobothrys chorisianus var. chorisianus Choris' popcornflower	-/-/1B.2	Chaparral, coastal scrub, coastal prairie. Mesic sites. 15-160 meters. Blooms March through June.	**Not likely to occur.** Suitable habitat is absent from the BSA. One extirpated CNDDB occurrence is known from within two miles of the BSA observed in 1890.	N/A
Plagiobothrys diffusus San Francisco popcornflower	-/SE/1B.1	Valley and foothill grassland, coastal prairie. Historically from grassy slopes with marine influence. 45-360 m.	**Not likely to occur.** Suitable coastal prairie habitat is absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Plagiobothrys glaber hairless popcornflower	-/-/1A	Meadows and seeps, marshes and swamps. Coastal salt marshes and alkaline meadows. 5-125 meters (amsl). Blooms March-May.	**Not likely to occur.** Small patches of coastal salt marsh habitat occurs on the margins of the Radio Tower Pond and Model Yacht Basin. The isolated and previously disturbed nature of these areas make occurrence of this species unlikely. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Polemonium carneum Oregon polemonium	-/-/2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. 15-1525 m.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Polygonum marinense Marin knotweed	-/-/3.1	Marshes and swamps. Coastal salt marshes and brackish marshes. 0-10 meters. Blooms April through October.	**Not likely to occur.** Small patches of coastal salt marsh habitat occurs on the margins of the Radio Tower Pond and Model Yacht Basin. The isolated and previously disturbed nature of these areas make occurrence of this species unlikely. One CNDDB occurrence is known from within two miles of the BSA observed in 1863.	N/A
Sanicula maritima adobe sanicle	-/SR/1B.1	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie. Moist clay or ultramafic soils. 30-240 meters. Blooms February through May.	**Not likely to occur.** Suitable coastal prairie, meadow/seep, and chaparral habitat is absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Senecio aphanactis chaparral ragwort	-/-/2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-855 meters (amsl). Blooms January-April.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA	N/A
Silene scouleri ssp. scouleri Scouler's catchfly	-/-/2B.2	Coastal bluff scrub, coastal prairie, valley and foothill grassland. 5-315 m.	**Not likely to occur.** Suitable coastal prairie and coastal bluff scrub habitat is absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Silene verecunda ssp. verecunda San Francisco campion	-/-/1B.2	Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, coastal prairie. Often on mudstone or shale; one site on serpentine. 30-645 m.	**Not likely to occur.** Suitable coastal prairie, coastal scrub, coastal bluff scrub, and chaparral habitat is absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Spergularia macrotheca var. longistyla long-styled sand-spurrey	-/-/1B.2	Marshes and swamps, meadows and seeps. Alkaline. 0-220 meters (amsl). Blooms February-May.	**Not likely to occur.** Suitable alkaline habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Stebbinsoseris decipiens Santa Cruz microseris	-/-/1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Open areas in loose or disturbed soil, usually derived from sandstone, shale or serpentine, on seaward slopes. 90-750 m.	**Not likely to occur.** Suitable coastal prairie, coastal scrub, coastal bluff scrub, and chaparral habitat is absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. Additionally, the BSA is outside of the known range of this species. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	-/-/1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 90-1040 meters (amsl). Blooms April-September.	**Not likely to occur.** Suitable alkaline habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Streptanthus glandulosus ssp. niger Tiburon jewelflower	FE/SE/1B.1	Valley and foothill grassland. Shallow, rocky serpentine slopes. 30-150 m.	**Not likely to occur.** Suitable alkaline habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Stuckenia filiformis ssp. alpine slender-leaved pondweed	-/-/2B.2	Freshwater wetlands, shallow, clear water of lakes, and drainage channels. 300-2150 meters (amsl). Blooms May-July.	**Not likely to occur.** Marsh habitat within the BSA is estuarine, and not suitable for this species. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Suaeda californica California seablite	FE/-/1B.1	Marshes and swamps. Margins of coastal salt marshes. 0-5 meters. Blooms July through October.	**Not likely to occur.** Small patches of coastal salt marsh habitat occurs on the margins of the Radio Tower Pond and Model Yacht Basin. These areas were surveyed on foot by a botanist during reconnaissance surveys and this species was not observed. One CNDDB occurrence is known from within two miles of the BSA observed in 2008. This is an introduced population of this species located at the Emeryville Crescent marsh.	**No effect.**
Symphyotrichum lentum Suisun Marsh aster	-/-/1B.2	Marshes and swamps (brackish and freshwater). Most often seen along sloughs with *Phragmites, Scirpus*, blackberry*, Typha*, etc. 0-15 m.	**Not likely to occur.** Small patches of coastal salt marsh habitat occurs on the margins of the Radio Tower Pond and Model Yacht Basin. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Trifolium amoenum two-fork clover	FE/-/1B.1	Valley and foothill grassland, coastal bluff scrub. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 5-310 m.	**Not likely to occur.** Suitable coastal bluff scrub habitat is absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Trifolium hydrophilum saline cover	-/-/1B.2	Found in freshwater marshes, depressions, and vernal pools. Also, in mesic, alkaline valley and foothill grassland below 300 meters (amsl). Blooms April-June.	**Not likely to occur.** Marsh habitat within the BSA is estuarine, and not suitable for this species. Two extirpated CNDDB occurrence records are known from within two miles of the BSA observed in 1883 and 1893.	N/A
Triphysaria floribunda San Francisco owl's-clover	-/-/1B.2	Coastal prairie, coastal scrub, valley and foothill grassland. On serpentine and non-serpentine substrate (such as at Pt. Reyes). 1-150 meters. Blooms April through June.	**Not likely to occur.** Suitable coastal prairie and coastal scrub, habitat is absent from the BSA and the limited grassland cover within the BSA is relatively fragmented and disturbed. Additionally, the BSA is outside of the known range of this species. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Triquetrella californica coastal triquetrella	-/-/1B.2	Coastal bluff scrub, coastal scrub. Grows within 30m from the coast in coastal scrub, grasslands and in open gravels on roadsides, hillsides, rocky slopes, and fields. On gravel or thin soil over outcrops. 10-100 meters.	**Not likely to occur.** Suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State/CRPR)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Viburnum ellipticum oval-leaved viburnum	-/-/2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. 215-1400 m.	**Not likely to occur.** Suitable habitat is absent from the BSA, and the BSA is outside the elevation range of this species. One CNDDB occurrence is known from within two miles of the BSA observed in 1914.	N/A

"Potential to Occur" Categories Definitions

Likely to occur = record is known from within 2 miles of the BSA or was observed in the BSA, and suitable habitat is present in the BSA.
May occur = record known from within 2 miles of the BSA but only marginal habitat exists in the BSA, but the occurrence is outside of the BSA.
Not likely to occur = BSA is outside of species' range, record is possibly or presumed extirpated, or no marginal habitat present.

Status Legend

Federal
FE = Federally endangered
FT = Federally threatened
FPE = Federally proposed endangered
FPT = Federally proposed threatened
FC = Federal candidate for listing as threatened or endangered

State
SR = State rare
SE = State endangered
ST = State threatened

CRPR (California Rare Plant Rank)
1A = Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B = Plants Rare, Threatened, or Endangered in California and Elsewhere
2A = Plants Presumed Extirpated in California, But More Common Elsewhere
2B = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

Other
CNDDB= California Natural Diversity Database
N/A = Not Applicable

This page intentionally left blank

Special-status Wildlife Species

Special-Status Wildlife Species

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Invertebrates				
Bombus occidentalis western bumble bee	-/SCE	Populations are currently restricted to high elevation sites in the Sierra Nevada Mountains and scattered occurrences along the California coast. Requires abundant rodent burrows for subterranean nests or brush piles, as well as sufficient wildflowers for food sources. Threatened by habitat loss, herbicides, and pesticides.	**Not likely to occur.** The BSA is within the species current range, but suitable burrows and wildflowers are largely absent. There is one CNDDB occurrence record known from 1965 within two miles of the BSA, from a location spanning Emeryville, north Oakland, and south Berkeley. Additionally, the application of herbicides along I-80 and roads further reduces the potential for this species to occur.	N/A
Callophrys mossii bayensis San Bruno elfin butterfly	FE/-	Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is *Sedum spathulifolium*.	**Not likely to occur.** Suitable habitat is absent from the BSA and the BSA is outside of the species' known range. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Danaus plexippus monarch butterfly – California overwintering population (pop. 1)	-/-	Dense Eucalyptus, Monterey pine, and live oak groves along Coastal California that provide shelter from prevailing winds.	**Not likely to occur.** Suitable aggregation substrate is absent from the BSA, as linear tree groves along roads and urban areas do not provide adequate shelter from wind. There is one CNDDB occurrence record known from 2015 within two miles of the BSA, from a location east of the central portion of the Berkeley Aquatic Park Lagoon (near the western terminus of Carleton Street). This observation location is significantly outside of the BSA, where no project activities would occur.	N/A
Euphydryas editha bayensis Bay checkerspot butterfly	FT/-	Current range includes San Francisco Peninsula, San Mateo County, and Santa Clara County. Formerly San Francisco Bay area to Mount Diablo and Hollister. Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *O. purpurscens* are the secondary host plants.	**Not likely to occur.** Suitable serpentine grassland habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Plebejus icarioides missionensis Mission blue butterfly	FE/-	Currently restricted to San Francisco Bay Area at Twin Peaks area of SF, For Baker in Marin County, and San Bruno Mountain in San Mateo County. Typically found at elevations around 700 feet amsl. Requires varied lupine (*Lupinus variicolor*), silver lupine (*L. albifrons*), or western lupine (*L. formosus*) as larval host plants.	**Not likely to occur.** The BSA is located outside of the species' range. Larval host plants are not expected to occur within the BSA, given the degree of ruderal and nonnative grassland in upland areas. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Speyeria callippe callippe Callippe silverspot butterfly	FE/-	Inner coast range of northwest Contra Costa County south to Castro Valley in Alameda County, and San Francisco south to La Honda in San Mateo County. Coastal dune, bluff, scrub, and prairie typically in areas sheltered from wind below 810 feet above mean sea level (amsl) and within 3 miles of the Coast. Larval hostplants are violets, typically *Viola adunca*, and adult foodplants are *Grindelia hirsutula*, *Abronia latifolia*, mints, *Monardella* spp., *Cirsium vulgare*, and *Erigeron glaucus*.	**Not likely to occur.** Suitable coastal dune, bluff, scrub, and prairie habitat sheltered from wind is absent from the BSA. Larval host plants are not expected to occur within the BSA, given the degree of ruderal and nonnative grassland in upland areas. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Amphibians				
Ambystoma californiense California tiger salamander	FT/ST	Need vernal pools or other seasonal freshwater sources for breeding, and adjacent underground refuges, especially ground squirrel burrows.	**Not likely to occur.** Suitable freshwater aquatic and upland habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Dicamptodon ensatus California giant salamander	-/SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	**Not likely to occur.** Suitable freshwater aquatic and upland forest habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Rana boylii foothill yellow-legged frog	-/SCT, SSC	Lowlands & foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	**Not likely to occur.** The BSA is located outside of the species' known range, isolated by development from suitable habitat in the East Bay Hills, and suitable habitat is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Rana draytonii California red-legged frog	FT/SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat. Streams, freshwater pools, and ponds with emergent vegetation.	**Not likely to occur**. Suitable aquatic freshwater habitat is absent from the BSA and is significantly isolated from known populations in the East Bay Hills by urbanization. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Reptiles				
Chelonia mydas green sea turtle	FT/-	Global oceans spanning the equator, including the western U.S. coast north to southern Alaska. Typically found nearshore areas, bays, lagoons, on reefs, and seagrass beds. Juveniles are opportunistic feeders, but adults that have completed their pelagic migration phase typically feed on algae and seagrasses.	**Not likely to occur**. Species is not expected to occur along the shallow shoreline of San Francisco Bay (SF Bay). Habitat in the Aquatic Park lagoon, Model Yacht Basin, and Radio Tower Pond is not optimal. These areas are restricted from the SF Bay with a small number of culverts limiting connectivity. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Emys (=*Actinemys*) *marmorata* western pond turtle	-/SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation amsl. Needs basking sites and suitable adjacent upland (sandy banks or grassy open fields) habitat for egg-laying.	**May occur.** Marginal brackish to marine aquatic habitat is present in, the Aquatic Park lagoon, Model Yacht Basin, and Radio Tower Pond, but this would only provide temporary refuge for the species. Suitable permanent aquatic habitat is present in the freshwater wetland east of the lagoon. Non-native red-eared sliders are present in the lagoon. No CNDDB occurrence records are known from within two miles of the BSA, but this species is known to range widely throughout the region.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Masticophis lateralis euryxanthus Alameda whipsnake	FT/ST	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs from a vegetative mosaic with oak trees and grasses.	**Not likely to occur.** BSA is outside of the species' range. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Thamnophis sirtalis tetrataenia San Francisco garter snake	FE/SE, FP	Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	**Not likely to occur.** BSA is outside of the species' range. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Birds				
Accipiter cooperii Cooper's hawk	-/- (MBTA)	Residents of forest and woodlands habitats; also inhabit suburbs with adequate nesting habitat. Nests in oaks, pines, spruces, Douglas-firs along flat ground with dense wooded areas. Nests can be found amongst a horizontal branch 25-50 feet high.	**May occur.** Clusters of trees represent suitable nesting substrate in the BSA. No CNDDB occurrence records are known from within two miles of the BSA, but this species is not typically tracked in CNDDB.	N/A
Aquila chrysaetos golden eagle	-/FP	Rolling foothills, mountain areas, sage-juniper flats, & desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Not likely to occur.** Suitable nesting substrate is absent from the BSA, and the high degree of background noise and human activity further reduces the potential for this species to occur. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Ardea alba great egret	-/- (MBTA)	Forages in freshwater, brackish, and marine wetlands, as well flooded agricultural fields and occasionally grasslands. Nests in colonies in trees located adjacent to waterbodies, rivers, estuaries, and marshes.	**Likely to occur.** Trees along the Aquatic Park lagoon represent suitable nesting substrate, and the lagoon and SF Bay shoreline represent suitable foraging habitat. No CNDDB occurrence records are known from within two miles of the BSA, but this species is not typically tracked in CNDDB.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Ardea herodias great blue heron	-/- (MBTA)	Forages in freshwater, brackish, and marine wetlands, as well flooded agricultural fields. Nests in colonies in trees located adjacent to waterbodies, rivers, estuaries, and marshes.	**Likely to occur.** Trees along the Aquatic Park lagoon represent suitable nesting substrate, and the lagoon and SF Bay shoreline represent suitable foraging habitat. No CNDDB occurrence records are known from within two miles of the BSA, but this species is not typically tracked in CNDDB.	N/A
Asio flammeus short-eared owl	-/SSC	Permanent resident along the Coast from Del Norte County to Monterey County (rare in summer north of SF Bay), north of Nevada County in Sierra Nevada, plains east of the Cascades, and Mono County. Forages and nests in grasslands, marshes, and some agricultural lands.	**Not likely to occur.** Suitable nesting and foraging substrate is significantly limited by development and human activity in the BSA, and the high degree of background noise and vehicle further reduces the potential for this species to occur. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Athene cunicularia burrowing owl	-/SSC	Yearlong resident of open, dry grassland and desert habitats, as well as in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel (*Spermophilus beecheyi*).	**Not likely to occur.** Suitable foraging habitat is significantly fragmented by development in the BSA, and substantial burrow complexes (e.g., nesting habitat) are absent from the BSA. Population known from parks primarily north of University Avenue, but foraging habitat is substantially limited within the BSA. Nearby, trees, fences, and overpasses represent potential predator perches, which further reduce the potential for this species to occur. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Branta hutchinsii leucopareia cackling (=Aleutian Canada) goose	-/- (MBTA)	Entire California population winters in Butte Sink and migrates to Los Banos, Modesto, the Sacramento-San Joaquin Delta, and East SF Bay reservoirs. Breeds outside of California. Roosts in large marshes, stock pond edges, flooded agricultural fields, and reservoir edges. Forages in pastures, meadows, and grain fields.	**Not likely to occur.** This species does not nest in California.	N/A
Charadrius alexandrinus nivosus western snowy plover	FT/SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	**Not likely to occur.** Suitable beach and sandy, gravelly or friable soil substrate isolated from predators is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
*Circus hudsonius (*formerly *cyaneus)* northern harrier	-/SSC	California coast from Del Norte County south to San Luis Obispo, east of California Cascades, northern 2/3 of Central Valley, and portion of Great Basin within California. Nests in marshes and moist fields, forages over open areas.	**May occur.** Marginal foraging habitat is present in grassland and ruderal portions of the BSA, but the small fragmented areas of grassland, routine vegetation management, and frequent noise and human activity are expected to preclude this species from nesting within the BSA. There is one CNDDB occurrence record known from 2002 within two miles of the BSA at Eastshore State Park.	N/A
Coturnicops noveboracensis yellow rail	-/SSC	Shallow brackish and freshwater marshes, wet meadows, and occasionally rice fields. Summer resident in eastern Sierra Nevada in Mono County.	**Not likely to occur.** Suitable foraging habitat is present along shorelines and wetlands in portions of the BSA, but frequent noise and human activity are expected to preclude this species from nesting within the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Egretta thula snowy egret	-/- (MBTA)	Year-round in San Francisco Bay, Sacramento-San Joaquin Delta, Central Valley, Salton Sea, and Colorado River. Winters along the Southern California coast and migrates through the southern 2/3 of the state. Nests in colonies on thick vegetation on islands in salt and freshwater marshes and swamps. Forages in estuaries, marshes, tidal channels, shallow marine bays, agricultural fields, and other wetlands.	**Likely to occur.** Suitable foraging habitat is present along shorelines and wetlands in portions of the BSA, but frequent noise and human activity are expected to preclude this species from nesting within the BSA. No CNDDB occurrence records are known from within two miles of the BSA, but the species is known to occur within the region.	N/A
Elanus leucurus white-tailed kite	-/FP	Nests in rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**May occur.** Marginal foraging habitat is present in grassland and ruderal portions of the BSA, but the small fragmented areas of grassland, routine vegetation management, and frequent noise and human activity reduce the potential for this species to occur. Similarly, marginal nest trees are present along I-80, Ashby, and connecting ramps, but the degree of background noise and human activity is expected to preclude nesting. There is one CNDDB occurrence record known from 1994 within two miles of the BSA at the marina south of Cesar Chavez Park.	N/A
Falco peregrinus anatum American peregrine falcon	FD/SD, FP	Year-round throughout most of California, except for northern Sierra Nevada, Central Valley, and interior Southern California. Forages near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open, elevated site (cliffs, tall isolated trees, high bridges, and power transmission towers).	**Not likely to occur.** Suitable nesting substrate is absent from the BSA and the degree of noise and human activity reduce the likelihood for this species to occur. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Geothlypis trichas sinuosa saltmarsh common yellowthroat	-/SSC	Resident of fresh and salt water marsh and swamps throughout San Francisco Bay. Requires thick, continuous cover down to water surface for foraging, and tall grasses, bulrush patches, and/or willows for nesting.	**Not likely to occur.** Suitable dense, continuous marsh habitat is absent from the BSA. The degree of noise, night lighting, and human activity is expected to preclude nesting from the BSA. There is one CNDDB occurrence record known from 1989 within two miles of the BSA, north of the Bay Bridge Toll Plaza.	N/A
Haliaeetus leucocephalus bald eagle	FD/SE, FP	Occurs mainly along coasts, rivers, and lakes; nests in tall trees or in cliffs, usually within 1 mile of water. Nests in large, old-growth, or trees with open branches, especially ponderosa pine. Roosts communally in winter. Feeds mostly on fish.	**Not likely to occur.** Suitable Nesting substrate is absent from the BSA and the degree of noise and human activity reduce the likelihood for this species to occur. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Hydroprogne caspia Caspian tern	-/- (MBTA)	Breeds along coastal regions in San Francisco Bay and Monterey Bay, as well as Lake Tahoe and northern Siskiyou and Modoc counties. Nests in colonies at shorelines of salt marshes, freshwater lake islands, barrier islands, river islands, and dredge spoil islands. Forages in open water areas for fish.	**Likely to occur.** Suitable foraging habitat in SF Bay and the lagoon, Model Yacht Basin, and Radio Tower Pond, but suitable nesting habitat isolated from predators is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA, though the species is known from the general region.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Laterallus jamaicensis coturniculus California black rail	-/ST, FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	**Not likely to occur.** Suitable foraging habitat is present in the lagoon, Model Yacht Basin, and Radio Tower Pond, but the paucity of emergent vegetation, degree of noise, and routine human activity reduces the likelihood for this species to occur. Suitable nesting habitat is absent from the BSA. There is one CNDDB occurrence record known from 1999 within two miles of the BSA, north of the Bay Bridge Toll Plaza.	N/A
Melospiza melodia maxillaris Suisun song sparrow	-/SSC	Resident of brackish-water marshes surrounding Suisun Bay. Inhabits cattails, bulrush, and other sedges, and Salicornia; also known to frequent tangles bordering sloughs.	**Not likely to occur.** The BSA is outside of the species' range.	N/A
Melospiza melodia pusillula Alameda song sparrow	-/SSC	Resident of tidal salt marshes bordering south arm of San Francisco Bay. Found in pickleweed marshes. Nests in *Grindelia* and *Salicornia* along channels.	**Not likely to occur.** Sufficient pickleweed-dominated marsh habitat is absent from the BSA, with only small isolated patches occurring along the shore of the Model Yacht Basin and Radio Tower Pond. Trees, fences, light poles, and other elevated structures are suitable raptor perches that are present near these areas and further reduce the potential for the species to occur or nest in the BSA. There are 3 CNDDB occurrence records known within two miles of the BSA, from locations south of the Emeryville Peninsula, north of the Bay Bridge Toll, Plaza, and along the SF Bay shoreline within and north of the BSA. The observation made within and north of the BSA was made in 1942.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Melospiza melodia samuelis San Pablo song sparrow	-/SSC	Resident of salt marshes along the north side of San Francisco and San Pablo bays. Inhabits tidal sloughs with *Salicornia* marshes; nests in *Grindelia* bordering slough channels, and *Baccharis pilularis*.	**Not likely to occur.** The BSA is outside of the species' range.	N/A
Nycticorax nycticorax black-crowned night heron	-/- (MBTA)	Year-round resident in California Coast and Coast Range, Cascades, and along the Colorado River. Migrates throughout the remainder of the State. Nests colonially within a tree or cattails over or near water. Forages in freshwater, brackish, and salt marshes; rivers; mud flats; other water bodies; and wet agricultural fields.	**Likely to occur.** Suitable foraging habitat is present along the SF Bay shoreline, Aquatic Park lagoon, Model Yacht Basin, and Radio Tower Pond, but the degree of noise and human activity are expected to preclude the species from establishing a rookery in the BSA. No CNDDB occurrence records are known from within two miles of the BSA, but this species is not typically tracked in the CNDDB.	N/A
Phalacrocorax auritus double-crested cormorant	-/- (MBTA)	Colonial nester of large aquatic water bodies and sometimes breed in colonies on smaller ponds or lagoons. Require high perching areas and nest on the ground on rocks with no vegetation, or atop of trees.	**Likely to occur.** Suitable foraging habitat is present along the SF Bay shoreline, Aquatic Park lagoon, Model Yacht Basin, and Radio Tower Pond, and the species is routinely seen at these locations. However, the degree of noise and human activity are expected to preclude the species from establishing a nesting colony in the BSA.	N/A
Rallus obsoletus California Ridgway's rail	FE/SE, FP	Saltwater and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	**Not likely to occur.** Suitable tidal marsh habitat is absent from the BSA. There is one CNDDB occurrence record known from 2006 within two miles of the BSA, along the SF Bay shoreline south of the Emeryville Peninsula to immediately north of the Bay Bridge Toll Plaza.	**No effect.**

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Riparia riparia bank swallow	-/ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, or ocean to dig nesting hole.	**Not likely to occur.** Suitable nesting habitat (vertical banks/cliffs with sandy substrate) is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Rynchops niger black skimmer	-/SSC	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.	**Not likely to occur.** Suitable nesting habitat is insufficient and near routinely busy roads, trails, and beaches within the BSA. Species may occasionally forage along the SF Bay shoreline. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Sternula antillarum browni California least tern	FE/SE, FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas. Forages in open water, marine habitat.	**Not likely to occur.** Suitable nesting habitat isolated from predators is absent from the BSA. The degree of vehicle noise and human activity further reduces the potential for this species to occur within the BSA. Species is known to forage in SF Bay, and may occasionally forage along the Bay and lagoon. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**
Xanthocephalus xanthocephalus yellow-headed blackbird	-/SSC	Central Valley and southeastern California year-round. Winters in southern Arizona, Texas, New Mexico, and Mexico. Occurs in the Great Basin to Canada during summer. Nests in freshwater emergent wetlands with dense vegetation & deep water. Often along borders of lakes or ponds. Nests only where large insects such as *Odonata* are abundant, nesting timed with maximum emergence of aquatic insects.	**Not likely to occur.** Suitable emergent marsh nesting habitat is insufficient and near routinely busy roads within the BSA. The degree of vehicle noise and human activity further reduces the potential for this species to occur within the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Mammals				
Antrozous pallidus pallid bat	-/SSC (WBWG: High Priority)	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Not likely to occur.** Some structures may be suitable for roosting, but the BSA is surrounded by low fragmented foraging habitat and the degree of background noise, night lighting, and human activity reduces the potential for this species to occur. There is one CNDDB occurrence record within two miles of the BSA from an observation made in 1945 in central Berkeley.	N/A
Corynorhinus townsendii Townsend's big-eared bat	-/SSC (WBWG: High Priority)	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Not likely to occur.** Marginal roosting habitat occurs in tree clusters in the BSA, but the degree of background noise, night lighting, and human activity reduces the potential for this species to occur. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Enhydra lutris nereis southern sea otter	FT/FP	San Mateo County to Santa Barbara County. Found in kelp forests and forage for snails, urchins, clams, crabs, abalone, muscles, and other invertebrates.	**Not likely to occur.** Significant development is present along the SF Bay shoreline in the BSA and the lagoon, Model Yacht Basin, and Radio Tower Pond are significantly restricted from SF Bay (i.e., only connected via culverts). Species is not expected to occur along the shallow shoreline of SF Bay. The degree of background noise, night lighting, and human activity reduces the potential for this species to occur. No CNDDB occurrence records are known from within two miles of the BSA.	**No effect.**

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Eumetopias jubatus Steller (=northern) sea-lion	FD/SSC	Northern rim of the Pacific Ocean from northern Japan to central California. Typically, in coastal waters on the continental shelf, and give birth on beaches (gravel, rock, or sand substrate), shoreline ledges, and rocky reefs.	**Not likely to occur.** Significant development is present along the SF Bay shoreline in the BSA and the lagoon, Model Yacht Basin, and Radio Tower Pond are significantly isolated from SF Bay (i.e., only connected via culverts). Species is not expected to occur along the shallow shoreline of SF Bay. The degree of background noise, night lighting, and human activity reduces the potential for this species to occur. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Lasiurus blossevillii western red bat	-/SSC (WBWG: High Priority)	Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	**Not likely to occur.** Marginally suitable roosting and fragmented foraging habitat present in the BSA, but the degree of background noise, night lighting, and human activity reduces the potential for this species to occur. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Lasiurus cinereus hoary bat	-/- (WBWG: Medium Priority)	Ranges from tree limit in Canada south to Guatemala, and from Brazil to Argentina and Chile. Coniferous forests and deciduous woodlands. Roosts are typically near clearings at the ends of branches.	**Not likely to occur.** Some structures may be suitable for roosting, but the BSA is surrounded by fragmented foraging habitat and the degree of background noise, night lighting, and human activity reduces the potential for this species to occur. There are two CNDDB occurrence records known from within two miles of the BSA, from locations in northwest Oakland (1951) and central Berkeley (1972).	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Microtus californicus sanpabloensis San Pablo vole	-/SSC	Salt marshes of San Pablo Creek, on the south shore of San Pablo Bay. Constructs burrow in soft soil. Feeds on grasses, sedges and herbs. Forms a network of runways leading from the burrow	**Not likely to occur.** The BSA is outside of the species' range. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	-/SSC	Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded grass, leaves and other material. May be limited by availability of nest-building materials.	**Not likely to occur.** Substantial forest habitat with moderate to dense cover is absent from the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Nyctinomops macrotis big free-tailed bat	-/SSC (WBWG: Medium Priority)	Primarily across southwestern US north to southern Utah and central Colorado. Low-lying arid areas in Southern California. Needs high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	**Not likely to occur.** Suitable high cliff and rocky outcrop habitat is absent from the BSA and substantial, continuous patches occur nearby. There is one CNDDB occurrence record known from within two miles of the BSA, from an observation in central Berkeley made in 1916.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Reithrodontomys raviventris salt marsh harvest mouse	FE/SE, FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	**Not likely to occur.** Sufficient pickleweed-dominated saltmarsh is absent from the BSA, as only small isolated patches occur along the shore of the Model Yacht Basin and Radio Tower Pond. Trees, fences, light poles, and other elevated structures are suitable raptor perches that are present near these areas and further reduce the potential for the species to occur or nest in the BSA. Substantial, continuous patches of pickleweed marsh do not occur nearby. There is one CNDDB occurrence record known from 1986 within two miles of the BSA, along the SF Bay shoreline south of the Emeryville Peninsula to immediately north of the Bay Bridge Toll Plaza.	**No effect.**
Scapanus latimanus parvus Alameda Island mole	-/SSC	Endemic to Alameda Island. Found in a variety of habitats, especially annual and perennial grasslands. Prefers moist, friable soils. Avoids flooded soils.	**Not likely to occur.** The BSA is outside of the species' range. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

Sci. Name Common Name	Status (Fed/State)	Habitat	Potential to Occur in Biological Study Area (BSA)	Federally-Listed Species Determination
Sorex vagrans halicoetes salt-marsh wandering shrew	-/SSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6-8 ft above sea level where abundant driftwood is scattered among *Salicornia*.	**Not likely to occur.** Sufficient pickleweed-dominated saltmarsh is absent from the BSA, as only small isolated patches occur along the shore of the Model Yacht Basin and Radio Tower Pond. Trees, fences, light poles, and other elevated structures are suitable raptor perches that are present near these areas and further reduce the potential for the species to occur or nest in the BSA. Substantial, continuous patches of pickleweed marsh do not occur nearby. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Taxidea taxus American badger	-/SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Not likely to occur.** Suitable grassland habitat is fragmented and significantly isolated by urban development within the BSA. No CNDDB occurrence records are known from within two miles of the BSA.	N/A
Zapus trinotatus orarius Point Reyes jumping mouse	-/SSC	Known from Point Reyes Peninsula, Marin Headlands Peninsula. Found in wet coastal meadows with loose, humus-filled dark soils associated with redwood forests; deciduous woody vegetation along streams and seeps, and (occasionally) in grassy areas under forest canopy.	**Not likely to occur.** The BSA is outside of the species' range. No CNDDB occurrence records are known from within two miles of the BSA.	N/A

"Potential to Occur" Categories Definitions

Likely to occur = record is known from within 2 miles of the BSA or was observed in the BSA, and suitable habitat is present in the BSA.
May occur = record known from within 2 miles of the BSA but only marginal habitat exists in the BSA, but the occurrence is outside of the BSA.
Not likely to occur = BSA is outside of species' range, record is possibly or presumed extirpated, or no marginal habitat present.

Status Legend

Federal

FE = federally endangered FT = federally threatened
FPE = federally proposed endangered FPT = federally proposed threatened
FC = federal candidate for listing as threatened or endangered
FD = federally delisted

Other

State

SR = state rare
SE = state endangered ST = state threatened FP = fully protected SSC = species of special concern
SC = state candidate SCE = state candidate endangered SCT = state candidate threatened

WBWG (Western Bat Working Group) Priority

(available: wbwg.org/matrices/species-matrix/)

High = species "considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. Species is imperiled or are at high risk of imperilment."

Moderate = species warrants "evaluation, more research, and conservation actions of both the specie and possible threats. The lack of meaningful information is a major obstacle in adequately assessing species' status and should be considered a threat."

MBTA = Migratory Bird Treaty Act (applies to active nests)
CNDDB = California Natural Diversity Database
NA = Not Applicable