

# Appendix G

## Biological Resources

### Supporting Information

This page intentionally left blank

## TABLE OF CONTENTS

---

Table BIO-1: Special-Status or Otherwise Protected Plant Species that May Occur in the Terrestrial Study Area

Table BIO-2: Special-Status or Otherwise Protected Animal Species that May Occur in the Terrestrial Study Area

Table BIO-3: Special-Status Fish and Marine Mammal Species that may Occur in the Bay Waters of the Study Area

Table BIO-4: Managed Fish Species Known to Occur in Central San Francisco Bay under the Magnuson-Stevens Act

Figure BIO-1: Special Status Plant and Animal Species Occurrences within 5 miles of the Project Site and the Marine Study Area

This page intentionally left blank

**TABLE BIO-1**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED PLANT SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	CRPR Ranking	Habitat Description / Blooming Period	Potential to Occur in the Study Area
Plant Species Listed or Proposed for Listing					
Franciscan manzanita <i>Arctostaphylos franciscana</i>	FE	--	1B.1	Open, rocky, serpentine outcrops in chaparral. February – April	<b>No Potential.</b> No manzanita shrubs were observed during the reconnaissance survey of the project site and the supportive vegetation community for this species is not found within the study area. This species was rediscovered in Presidio National Park in late 2009 after being believed to be extinct in the wild (although still extant through cultivation).
San Bruno Mountain manzanita <i>Arctostaphylos imbricata</i>	--	CE	1B.1	Chaparral and coastal scrub, usually on sandstone outcrops. February – May	<b>No Potential.</b> No manzanita shrubs were observed during the reconnaissance survey of the project site and the supportive vegetation community for this species is not found within the study area. Regional occurrences are restricted to San Bruno Mountain and the Santa Cruz Mountains; therefore this species is not expected on site.
Presidio manzanita <i>Arctostaphylos montana</i> (=hookeri) ssp. <i>ravenii</i>	FE	CE	1B.1	Open, rocky, serpentine slopes in chaparral, coastal scrub, and coastal prairie. February – March	<b>No Potential.</b> No manzanita shrubs were observed during the reconnaissance survey of the project site and the supportive vegetation community for this species is not found within the study area and therefore this species is not expected on site.
Pacific manzanita <i>Arctostaphylos pacifica</i>	--	CE	1B.2	Coastal scrub and chaparral. February – April	<b>No Potential.</b> No manzanita shrubs were observed during the reconnaissance survey of the project site and the supportive vegetation community for this species is not found within the study area; therefore this species is not expected on site.
Marsh sandwort <i>Arenaria paludicola</i>	FE	CE	1B.1	Freshwater or brackish marshes and swamps. May – August	<b>No Potential.</b> No suitable habitat on site; species presumed extirpated in San Francisco.
Sonoma sunshine <i>Blennosperma bakeri</i>	FE	CE	1B.1	Valley and foothill grasslands, freshwater wetlands, and vernal pools. March – May	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Robust spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i>	FE	--	1B.1	Sandy or gravelly coastal dunes, coastal scrub, cismontane woodland and maritime chaparral. April – September	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.

**TABLE BIO-1 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED PLANT SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name Scientific Name	Federal Status	State Status	CRPR Ranking	Habitat Description / Blooming Period	Potential to Occur in the Study Area
Plant Species Listed or Proposed for Listing (Continued)					
Presidio clarkia <i>Clarkia franciscana</i>	FE	CE	1B.1	Serpentine outcrops in coastal scrub, and valley and foothill grassland. May – July	<b>No Potential.</b> Serpentine rock within the project site is subterranean. This species is not expected as there is no suitable habitat on site.
Marin western flax <i>Hesperolinon congestum</i>	FT	CT	1B.1	Chaparral and grassland, usually on serpentine barrens. April – July	<b>No Potential.</b> Serpentine rock within the project site is subterranean. This species is not expected as there is no suitable habitat on site.
Beach layia <i>Layia carnosa</i>	FE	CE	1B.1	Sand dunes and coastal strand. March – July	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
San Francisco lessingia <i>Lessingia germanorum</i>	FE	CE	1B.1	Coastal scrub, sandy soils free of competing species. July – November	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
White-rayed pentachaeta <i>Pentachaeta bellidiflora</i>	FE	CE	1B.1	Open, dry, rocky slopes and grassy areas, usually on serpentine. March – May	<b>No Potential.</b> Serpentine rock within the project site is subterranean. This species is not expected as there is no suitable habitat on site.
San Francisco popcornflower <i>Plagiobothrys diffusus</i>	--	CE	1B.1	Coastal prairie, and valley and foothill grasslands. March – June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Adobe sanicle <i>Sanicula maritima</i>	--	Rare	1B.1	Moist clay or ultramafic soil in chaparral, coastal prairie, meadows, seeps, and valley and foothill grassland. February – May	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site and the nearest CNDDDB <sup>1</sup> record for this species is considered extirpated.
California seablite <i>Suaeda californica</i>	FE	--	1B.1	Coastal salt marshes and swamps. July – October	<b>No Potential.</b> A nearby CNDDDB occurrence for a transplant is documented; however, the study area is out of the native range of this species. No suitable habitat is present on site and therefore this species is not expected on site.
Showy Indian (=two-fork) clover <i>Trifolium amoenum</i>	FE	--	1B.1	Valley grassland and wetland and riparian areas. Affinity to serpentine soils. April – June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site. Species requires heavy clay soils often associated with serpentine, conditions which are not present on site as project site is developed.

<sup>1</sup> California Natural Diversity Database (CNDDDB) is an inventory of the status and locations of rare plants and animals in California maintained by the California Department of Fish and Wildlife.

**TABLE BIO-1 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED PLANT SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	CRPR Ranking	Habitat Description / Blooming Period	Potential to Occur in the Study Area
<b>California Rare Plant Ranked Species</b>					
Franciscan onion <i>Allium peninsulare</i> <i>var. franciscanum</i>	--	--	1B.2	Clay, volcanic, or serpentine substrate in valley and foothill grassland and cismontane woodland. May – June	<b>No Potential.</b> Serpentine rock within the project site is subterranean. This species is not expected as there is no suitable habitat on site.
Bent-flowered fiddleneck <i>Amsinckia lunaris</i>	--	--	1B.2	Coastal bluff scrub, cismontane woodland, and valley and foothill grassland. March – June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Coast rock cress <i>Arabis</i> <i>blepharophylla</i>	--	--	4.3	Rocky soils in broadleaf upland forest, coastal bluff scrub, coastal prairie, and coastal scrub. February – May	<b>No Potential.</b> Serpentine rock within the project site is subterranean. This species is not expected as there is no suitable habitat on site.
Montara manzanita <i>Arctostaphylos</i> <i>montaraensis</i>	--	--	1B.2	Slopes and ridges in chaparral and coastal scrub. January – March	<b>No Potential.</b> No manzanita shrubs were observed during the reconnaissance survey of the project site and the supportive vegetation community for this species is not found within the study area and therefore this species is not expected on site.
Carlotta Hall's lace fern <i>Aspidotis carlotta-</i> <i>halliae</i>	--	--	4.2	Crevices, outcrops and slopes in chaparral and cismontane woodland, generally in serpentine soils. January – December	<b>No Potential.</b> Serpentine rock within the project site is subterranean. This species is not expected as there is no suitable habitat on site.
Nuttall's (=ocean bluff) milkvetch <i>Astragalus nuttallii</i> <i>var. nuttallii</i>	--	--	4.2	Coastal bluff scrub and coastal dunes, January – November	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Alkali milk-vetch <i>Astragalus tener</i> <i>var. tener</i>	--	--	1B.2	Alkali flats, flooded grassland, playas and vernal pools. March – June	<b>No Potential.</b> No suitable habitat present; species presumed extirpated in San Francisco.
Bristly sedge <i>Carex comosa</i>	--	--	2B.1	Lake margins, marshes, swamps, coastal prairie, and valley and foothill grasslands. May – September	<b>No Potential</b> This species is not expected as there is no suitable habitat on site.
northern meadow sedge <i>Carex praticola</i>	--	--	2B.2	Meadows and seeps in coastal prairie northern coastal coniferous forest. May – July	<b>No Potential</b> This species is not expected as there is no suitable habitat on site.

**TABLE BIO-1 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED PLANT SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	CRPR Ranking	Habitat Description / Blooming Period	Potential to Occur in the Study Area
California Rare Plant Ranked Species (cont.)					
Johnny-nip <i>Castilleja ambigua</i> <i>var. ambigua</i>	--	--	4.2	Wet sites in coastal bluff scrub, coastal prairie, marshes and swamps, valley and foothill grassland, and at the margins of vernal pools. March – August	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Pappose tarplant <i>Centromadia parryi</i> <i>ssp. parryi</i>	--	--	1B.2	Chaparral, coastal prairie, meadows, seeps, coastal salt marshes and swamps, and vernally mesic, often alkaline, valley and foothill grasslands. May – November	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Point Reyes bird's-beak <i>Chloropyron maritimum</i> <i>ssp. palustre</i>	--	--	1B.2	Coastal salt marshes and swamps. June – October	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
San Francisco spineflower <i>Chorizanthe cuspidata</i> <i>var. cuspidata</i>	--	--	1B.2	Sandy terraces and slopes of coastal bluff scrub, coastal dunes, coastal prairie and coastal scrub. April – July	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Franciscan thistle <i>Cirsium andrewsii</i>	--	--	1B.2	Coastal bluff scrub, coastal prairie, coastal mesic scrub, and broadleaf upland forest; sometimes on serpentine soils; often associated with seeps. March – July	<b>No Potential.</b> Serpentine rock within the project site is subterranean and site lacks seep habitat preferred by this species. This species is not expected as there is no suitable habitat on site.
Mt. Tamalpais thistle <i>Cirsium hydrophilum</i> <i>var. vaseyi</i>	--	--	1B.2	Serpentine seeps in meadows, broadleaved upland forest, and chaparral. May – August	<b>No Potential.</b> Serpentine rock within the project site is subterranean and site lacks seep habitat preferred by this species. This species is not expected as there is no suitable habitat on site.
Compact cobwebby thistle <i>Cirsium occidentale</i> <i>var. compactum</i>	--	--	1B.2	Coastal scrub, grassland, and dunes; often associated with seeps. April – June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Round-headed Chinese-houses <i>Collinsia corymbosa</i>	--	--	1B.2	Coastal dunes and coastal prairie. April – June	<b>No Potential.</b> No suitable habitat present; species has not been seen in San Francisco for more than 100 years.
San Francisco collinsia <i>Collinsia multicolor</i>	--	--	1B.2	On humus-covered soil derived from mudstone in closed-cone coniferous forest and coastal scrub. March – May	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.



**TABLE BIO-1 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED PLANT SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	CRPR Ranking	Habitat Description / Blooming Period	Potential to Occur in the Study Area
California Rare Plant Ranked Species (cont.)					
Marsh horsetail <i>Equisetum palustre</i>	--	--	3	Freshwater marshes and swamps.	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Slender cottongrass <i>Eriophorum gracile</i>	--	--	4.3	Acidic soils in bogs, and fens, meadows and seeps, and upper montane coniferous forest. May – September	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
San Francisco wallflower <i>Erysimum franciscanum</i>	--	--	4.2, LS	Coastal scrub and grassland, often on serpentine soils. March – June	<b>No Potential.</b> Serpentine rock within the project site is subterranean. Weedy area in southeast portion of the site is highly disturbed and not suitable for this species. This species is not expected as there is no suitable habitat on site.
Fragrant fritillary <i>Fritillaria liliacea</i>	--	--	1B.2	On clay, often serpentine derived soils in coastal scrub, grassland, and coastal prairie. February – April	<b>No Potential.</b> Serpentine rock within the project site is subterranean. Suitable habitat for this species is not found on site. A nearby 1895 CNDDDB occurrence from Potrero Hill is extirpated; therefore this species is not expected on site.
Blue coast gilia <i>Gilia capitata</i> ssp. <i>chamissonis</i>	--	--	1B.1	Coastal dunes and scrub. April – July	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Dark-eyed gilia <i>Gilia millefoliata</i>	--	--	1B.2	Coastal dunes. April – July	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
San Francisco gumplant <i>Grindelia hirsutula</i> var. <i>maritima</i>	--	--	3.2	Coastal scrub and grasslands. June – September	<b>No Potential.</b> Weedy area in southeast portion of the site is highly disturbed and not suitable for this species. This species is not expected as there is no suitable habitat on site.
Diablo helianthella <i>Helianthella castanea</i>	--	--	1B.2	On rocky soils in broadleaf upland forest, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. March – June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
White seaside (=congested-headed hayfield) tarplant <i>Hemizonia congesta</i> ssp. <i>congesta</i>	--	--	1B.2	Grassy valleys and hills, often on fallow fields in coastal scrub. April – November	<b>No Potential.</b> Weedy area in southeast portion of the site is highly disturbed and not suitable for this species. This species is not expected as there is no suitable habitat on site.

**TABLE BIO-1 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED PLANT SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	CRPR Ranking	Habitat Description / Blooming Period	Potential to Occur in the Study Area
California Rare Plant Ranked Species (cont.)					
Short-leaved evax <i>Hesperrevax sparsiflora</i> var. <i>brevifolia</i>	--	--	1B.2	Sandy bluffs and flats in coastal scrub and coastal dunes. March – June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Water star-grass <i>Heteranthera dubia</i>	--	--	2B.2	Marshes and swamps (alkaline, still or slow- moving water) July – October	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Kellogg's horkelia <i>Horkelia cuneata</i> ssp. <i>sericea</i>	--	--	1B.1	Coastal scrub, dunes, and openings of closed-cone coniferous forests. February – July	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Point Reyes Horkelia <i>Horkelia marinensis</i>	--	--	1B.2	Coastal dunes, prairie, and scrub. May – September	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Island tube lichen <i>Hypogymnia schizidiata</i>	--	--	1B.3	Coastal scrub on or near old-growth shrubs in few locations throughout California and Mexico.	<b>Low Potential.</b> This species is not expected as there is no suitable habitat on site as currently understood for this species.
Coast iris <i>Iris longipetala</i>	--	--	4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps, mesic sites. March – May	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Rose leptosiphon <i>Leptosiphon rosaceus</i>	--	--	1B.1	Coastal bluff scrub. April – July	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Arcuate bush mallow <i>Malacothamnus arcuatus</i>	--	--	1B.2	Gravelly alluvium in chaparral and cismontane woodland. April – September	<b>No Potential.</b> This species is not expected as there is no suitable substrate or habitat on site.
Mt. Diablo cottonweed <i>Micropus amphibolus</i>	--	--	3.2	Valley grassland, foothill woodland, and mixed evergreen forest with an affinity to serpentine soils. March – May	<b>No Potential.</b> Serpentine rock within the project site is subterranean. Weedy area in southeast portion of the site is highly disturbed and not suitable for this species. This species is not expected as there is no suitable habitat on site.
Marsh microseris <i>Microseris paludosa</i>	--	--	1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland. August – June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Northern curly- leaved Monardella <i>Monardella sinuata</i> ssp. <i>nigrescens</i>	--	--	1B.2	Coastal dunes and scrub, chaparral, lower montane coniferous forest. (Apr) May – July (Aug- Sept)	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.

**TABLE BIO-1 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED PLANT SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	CRPR Ranking	Habitat Description / Blooming Period	Potential to Occur in the Study Area
California Rare Plant Ranked Species (cont.)					
Choris's popcorn-flower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	--	--	1B.2	Mesic sites in chaparral, coastal scrub, and coastal prairie. March – June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Hairless popcornflower <i>Plagiobothrys glaber</i>	--	--	1A	Coastal salt marshes and alkaline meadows. March – May	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site. This species is presumed extirpated in California.
Oregon polemonium <i>Polemonium carneum</i>	--	--	2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. April – September	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Chaparral ragwort <i>Senecio aphanactis</i>	--	--	2B.2	Chaparral, cismontane woodland and coastal scrub, sometimes in alkaline soil. January – April (May)	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Scouler's catchfly <i>Silene scouleri</i> ssp. <i>scouleri</i>	--	--	2B.2	Coastal bluff scrub, coastal prairie, and valley and foothill grassland. (Mar-May) June – August (Sept)	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
San Francisco campion <i>Silene verecunda</i> ssp. <i>verecunda</i>	--	--	1B.2	Mudstone, shale, or serpentine substrates in coastal scrub, coastal prairie, chaparral and valley and foothill grassland. March – June	<b>Low.</b> Serpentine rock within the project site is subterranean. Some of the known occurrences of this species are located in disturbed, weedy habitats, and thus the high level of historic disturbance would not preclude this species. Weedy area in southeast portion of the site is highly disturbed, historically developed. This species is not expected as there is no suitable habitat on site.
Santa Cruz microseris <i>Stebbinsoseris decipiens</i>	--	--	1B.2	On sandstone, shale or serpentine derived seaward facing slopes in broadleaf upland forest, closed-cone coniferous forest, chaparral, coastal prairie, and coastal scrub. April – May	<b>No Potential.</b> Serpentine rock within the project site is subterranean. Some of the known occurrences of this species are located in disturbed, weedy habitats, and thus the high level of historic disturbance would not preclude this species. The project site is located outside of the understood range for this species and therefore it is not expected on site.
San Francisco owl's clover <i>Triphysaria floribunda</i>	--	--	1B.2	Usually serpentinite coastal prairie, valley grasslands, and coastal scrub. April – June	<b>No Potential.</b> Serpentine rock within the project site is subterranean. This species is not expected as there is no suitable habitat on site. A nearby CNDDDB occurrence in Potrero has been extirpated.

**TABLE BIO-1 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED PLANT SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	CRPR Ranking	Habitat Description / Blooming Period	Potential to Occur in the Study Area
California Rare Plant Ranked Species (cont.)					
Coastal triquetrella <i>Triquetrella californica</i>	--	--	1B.2	This moss grows on coastal bluffs and in coastal scrub habitats.	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Locally Significant Species					
Yellow carpet <i>Blennosperma nanum</i>	--	--	LS	Valley grassland, foothill woodland, and wetland-riparian areas. Often associated with vernal pool communities. February – April	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
California larkspur <i>Delphinium californicum</i>	--	--	LS	Foothill woodland and mixed conifer forest. April – June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Coast larkspur <i>Delphinium decorum</i>	--	--	LS	Northern coastal scrub, coastal prairie, yellow pine forest and mixed evergreen forest. March - July	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Purple spot gilia <i>Gilia clivorum</i>	--	--	LS	Valley grassland, northern coastal scrub, foothill woodland, and mixed evergreen forest. February - June	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Greene's saxifrage <i>Micranthes californica</i>	--	--	LS	Coastal sage scrub, closed-cone pine forest, red fir forest, foothill woodland and chaparral.	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Bitter cherry <i>Prunus emarginata</i>	--	--	LS	Evergreen forests. April – May	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
Holly leaf cherry <i>Prunus ilicifolia</i>	--	--	LS	Chaparral and foothill woodland. February – April	<b>No Potential.</b> This species is not expected as there is no suitable habitat on site.
California groundsel (Rayless ragwort) <i>Senecio aronicoides</i>	--	--	LS	Chaparral, yellow pine forest, red fir forest, lodgepole forest, and sagebrush scrub. April – July	<b>Low.</b> This species is not expected as there is no suitable habitat on site and species was not observed during botanical surveys.
Simple campion <i>Silene scouleri</i> ssp. <i>scouleri</i>	--	--	LS	Northern coastal scrub. July – August	<b>No Potential.</b> Weedy area in southeast portion of the site is highly disturbed and not suitable for this species. This species is not expected as there is no suitable habitat on site.

**TABLE BIO-1 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED PLANT SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

NOTES:

\* The project study area for terrestrial biological resources includes the project site and landside areas adjacent to the project site with similar habitat composition that includes developed or paved areas with long-standing industrial uses.

The "Potential for Effect" category is defined as follows:

Present = Species was observed during reconnaissance or focused surveys of the project area.

High = Species is expected to occur, habitat meets species requirements and is of moderate or high quality, and the study area is within the known species range.

Moderate = Habitat is marginally suitable (i.e. of low or moderate quality) or the study area is within the known range of the species, even though the species was not observed during biological surveys.

Low = Habitat does not meet species requirements as currently understood in the scientific community or the site is not within a species' geographic range.

No Potential = Habitat does not meet species requirements or the species is presumed to be extirpated from the project area or region based on the best scientific information available.

FESA = Federal Endangered Species Act, CESA = California Endangered Species Act,  
CNDDDB = California Natural Diversity Database

STATUS CODES:

Federal: U.S. Fish and Wildlife Service (USFWS)

FE = Listed as "endangered" under the FESA

FT = Listed as "threatened" under the FESA

FPD = Proposed delisted

FD = Delisted

State: California Department of Fish and Wildlife (CDFW)

CE = Listed as "endangered" under the CESA

CT = Listed as "threatened" under the CESA

CSC = CDFW designated "species of special concern"

CFP = CDFW designated "fully protected"

SC = CDFW designated "candidate threatened"

WL = CDFW designated "watch list"

California Rare Plant Rank (CRPR):

Rank 1A = Plants presumed extirpated in California and either rare or extinct elsewhere.

Rank 1B = Plants rare, threatened, or endangered in California and elsewhere.

Rank 2A = Plants presumed extirpated in California, but more common elsewhere.

Rank 2B = Plants rare, threatened, or endangered in California, but more common elsewhere.

Rank 3 = Plants about which we need more information – a review list

Rank 4 = Plants of limited distribution – a watch list

An extension reflecting the level of threat to each species is appended to each rarity category as follows:

.1 – Seriously endangered in California.

.2 – Fairly endangered in California.

.3 – Not very endangered in California.

LS = Locally Significant Plant Species for San Francisco County as designated by the CNPS Yerba Buena Chapter

SOURCE:

CDFW, 2018. California Natural Diversity Database (CNDDDB) Rarefind version 5 query of the San Francisco North and San Francisco South USGS 7.5-minute topographic quadrangles, Commercial Version. Accessed August 13, 2018.

California Native Plant Society (CNPS), Inventory of Rare and Endangered Plants for San Francisco North and San Francisco South USGS 7.5-minute topographic quadrangles, <http://www.rareplants.cnps.org/result.html?adv=t&quad=3712264:3712274>, accessed August 13, 2018.

U.S. Fish and Wildlife Service (USFWS), 2018. My Project, IPaC Trust Resource Report and Official Species List of Federally Endangered and Threatened Species that may occur in the Potrero Power Station Mixed-Use Development Project location, and/or may be affected by the proposed project, August 13, 2018.

**TABLE BIO-2**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED ANIMAL SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name Scientific Name	Federal Status	State Status	Habitat Description / Blooming Period	Potential to Occur in the Study Area
Species Listed or Proposed for Listing				
<b>Invertebrates</b>				
San Bruno elfin butterfly <i>Callophrys mossii</i> <i>bayensis</i>	FE	*	Coastal scrub or grassland on rocky outcrops with broadleaf stonecrop ( <i>Sedum spathulifolium</i> ).	<b>No Potential.</b> Three known populations occur at San Bruno Mountain, Montara, and Pacifica. The only vegetated portion of the project site is dominated by sweet fennel and coyote bush. Host plants for this species were not observed during reconnaissance survey and site conditions are not conducive to supporting host plants; therefore this species is not expected on site.
Bay checkerspot butterfly <i>Euphydryas</i> <i>editha bayensis</i>	FT	*	Serpentine grasslands with larval host plants dwarf plantain ( <i>Plantago erectis</i> ) and purple owl's clover ( <i>Castilleja exserta</i> spp. <i>exserta</i> ).	<b>No Potential.</b> The only vegetated portion of the project site is dominated by sweet fennel and coyote bush. Host plants for this species were not observed during reconnaissance survey and site conditions are not conducive to supporting host plants; therefore this species is not expected on site.
Mission blue butterfly <i>Plebejus</i> <i>icarioides</i> <i>missionensis</i>	FE	*	Grassland with <i>Lupinus albifrons</i> , L. Formosa, and L. varicolor.	<b>No Potential.</b> The only vegetated portion of the project site is dominated by sweet fennel and coyote bush. Host plants for this species were not observed during reconnaissance survey and site conditions are not conducive to supporting host plants; therefore this species is not expected on site.
Callippe silverspot butterfly <i>Speyeria callippe</i> <i>callippe</i>	FE	*	Found in native grasslands with <i>Viola pedunculata</i> as larval food plant.	<b>No Potential.</b> Although a CNDDB occurrence occurs 2.8 miles to the south, site conditions are not conducive to supporting host plants; therefore this species is not expected on site.
Myrtle's silverspot butterfly <i>Speyeria zerene</i> <i>myrtleae</i>	FE	*	Host plants include <i>Grindelia hirsutula</i> , <i>Abronia latifolia</i> , <i>Mondardella</i> , <i>Cirsium vulgare</i> , and <i>Erigeron glaucus</i> where found on the San Francisco and Marin peninsulas.	<b>No Potential.</b> The only vegetated portion of the project site is dominated by sweet fennel and coyote bush. Host plants for this species were not observed during reconnaissance survey and site conditions are not conducive to supporting host plants; therefore this species is not expected on site.
<b>Reptiles</b>				
San Francisco garter snake <i>Thamnophis</i> <i>sirtalis tetrataenia</i>	FE	CE, CFP	Densely vegetated ponds near open hillsides with abundant small mammal burrows.	<b>No Potential.</b> This species is considered likely extirpated from San Francisco. No suitable habitat occurs in or near the study area; therefore this species is not expected on site.
Green sea turtle <i>Chelonia mydas</i>	FT	--	Range in the eastern North Pacific Ocean from Baja California to Alaska, most commonly from San Diego South. When in nearshore foraging grounds, turtles feed on seagrasses and algae.	<b>Low Potential.</b> Unlikely to occur in San Francisco Bay along the project site.

**TABLE BIO-2 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED ANIMAL SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name Scientific Name	Federal Status	State Status	Habitat Description / Blooming Period	Potential to Occur in the Study Area
Species Listed or Proposed for Listing (continued)				
<b>Amphibians</b>				
California red-legged frog <i>Rana draytonii</i>	FT	CSC	Freshwater ponds and slow streams with emergent vegetation for egg attachment.	<b>No Potential.</b> No suitable breeding or upland dispersal habitat occurs in or near the project site; therefore, this species is not expected on site.
<b>Birds</b>				
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT	CSC	Sandy beaches, salt pond levels and shores of alkali lakes. Needs sandy, gravelly or friable soils for nesting.	<b>Low (No nesting potential).</b> The shoreline is armored with riprap and the surrounding area is developed. Beach foraging habitat is not available onsite to attract this species.
American peregrine falcon <i>Falco peregrines anatum</i>	FD	CD, CFP	Woodlands, coastal habitats, riparian areas, coastal and inland waters, human made structures that may be used as nest or temporary perch sites.	<b>Moderate (Potential to nest).</b> There are no adequate natural features for this species; however, the onsite buildings may provide potential nest sites. May hunt birds above the study area.
Bald eagle <i>Haliaeetus leucocephalus</i> (nesting and wintering)	FD	CE, CFP	Nests and forages on inland lakes, reservoirs, and rivers.	<b>Low (No nesting potential).</b> Unlikely to nest in an urban environment lacking nesting habitat. May forage for fish in the San Francisco Bay and scavenge for carcasses on the shoreline.
California black rail <i>Laterallus jamaicensis coturniculus</i>	--	CT, CFP	Salt and brackish marshes; also in freshwater marshes at low elevations.	<b>No Potential.</b> No suitable habitat present in the study area.
Brown pelican <i>Pelecanus occidentalis californicus</i> (nesting colony and communal roosts)	FD	CD, CFP	Pelagic forager along ocean and bay shorelines whose breeding range extends from the Channel Islands south to Mexico.	<b>Present (No nesting potential).</b> Forages in the San Francisco Bay. Could loaf on dilapidated piers in the project study area.
Short-tailed albatross <i>Phoebastria (=Diomedea) albatrus</i>	FE	CSC	A pelagic species that spends most of its time at sea and returns to land only for breeding purposes.	<b>Low (No nesting potential).</b> Breeds only at one or two sites off the coast of Japan, occasional visitor to California coast and could appear on a transient basis offshore of the study area.
Ridgway's rail <i>Rallus obsoletus obsoletus</i>	FE	CE, CFP	Salt marsh wetlands with dense vegetation along the San Francisco Bay.	<b>No Potential (No nesting potential).</b> A recent CNDDB occurrence is documented nearby (1.5 miles south). Suitable habitat is not present within the study area and the species is not known to travel long distances; therefore this species is not expected on site.

**TABLE BIO-2 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED ANIMAL SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	Habitat Description / Blooming Period	Potential to Occur in the Study Area
Species Listed or Proposed for Listing (continued)				
<b>Birds (cont.)</b>				
Bank swallow <i>Riparia riparia</i> (nesting)	--	CT	Vertical banks and cliffs with sandy soil, near water. Nests in holes dug in cliffs and river banks.	<b>Low (No nesting potential).</b> No suitable nesting habitat in the study area. Species may occur on a transient basis while foraging.
California least tern <i>Sternula antillarum browni</i>	FE	CE, CFP	Open beaches free of vegetation along the California coast.	<b>Low (No nesting potential).</b> Forages near the Bay shoreline. The project site shoreline is nearly completely armored with riprap and is bounded by paved, active parking lots. Nesting sites are not known to the study area. Closest nesting site is located on Alameda NAS, and it is unlikely this species would travel as far as the project site for foraging.
<b>Mammals</b>				
Salt marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE	CE, CFP	Salt marsh habitat dominated by pickleweed.	<b>No Potential.</b> Suitable habitat for this species is not found in the project study area.
Other Special-Status Species				
<b>Invertebrates</b>				
Monarch butterfly <i>Danaus plexippus</i>	--	*	Eucalyptus groves (wintering sites).	<b>Low.</b> Several records of this species in Golden Gate Park but no wintering sites have been identified within the study area. Few eucalyptus trees are located at the base of Irish Hill north of the project site and individuals may occur in the project vicinity during migration; however, the Irish Hill eucalyptus trees are not abundant and protected enough to support a roosting colony.
Tomales isopod <i>Caecuditea tomalensis</i>	--	--	Still to slow-moving water in vegetated ponds, preferably spring-fed.	<b>No Potential.</b> No suitable habitat present in the study area; therefore this species is not expected on site.
<b>Amphibians</b>				
California giant salamander <i>Dicamptodon ensatus</i>	--	CSC	Wet coastal forests in or near cold, permanent and semi-permanent streams and seepages.	<b>No Potential.</b> Freshwater stream habitat is not present within or near the study area; therefore this species is not expected on site.
<b>Reptiles</b>				
Western pond turtle <i>Actinemys marmorata</i>	--	CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	<b>No Potential.</b> Freshwater habitat is not present within or near the study area; therefore this species is not expected on site.



**TABLE BIO-2 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED ANIMAL SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name Scientific Name	Federal Status	State Status	Habitat Description / Blooming Period	Potential to Occur in the Study Area
Other Special-Status Species (cont.)				
<b>Birds</b>				
Clark's grebe <i>Aechmophorus clarkii</i>	BCC	--	Freshwater lakes and marshes with extensive open water bordered by vegetation. Nest is typically built on floating vegetation hidden among emergent plants. Typically found in saltwater or brackish water environments like San Francisco Bay during winter.	<b>Present (No nesting potential).</b> Regularly observed in open water off-shore of the project site while foraging in winter.
Tricolored blackbird <i>Agelaius tricolor</i> (nesting colony)	BCC	SCE, CSC	Nests in dense colonies within sloughs, swamps, and marshes where tall aquatic vegetation is present. Nests can extend into upland scrub habitat on colony fringes.	<b>Low (No nesting potential).</b> No suitable nesting or foraging habitat is present in the study area. May occur on a transient basis during migration.
Great blue heron <i>Ardea herodias</i>	--	\$3503	Shallow estuaries and fresh and saline emergent wetlands.	<b>Moderate (No nesting potential).</b> May forage along the study area shoreline. No existing rookeries occur within the study area; therefore this species is not expected to nest on site.
Western burrowing owl <i>Athene cunicularia</i> (burrow sites and some wintering grounds)	BCC	CSC	Open grasslands with low or no vegetation where existing rodent burrows occur for occupation.	<b>Low (No nesting potential).</b> No suitable nesting or foraging habitat is present in the study area that is almost entirely developed. Ruderal vegetation within the Potrero Point Park location (sweet fennel) does not provide habitat elements preferred by this species; therefore this species is not expected on site.
Oak titmouse <i>Baeolophus inornatus</i>	BCC	\$3503	Open, dry oak woodlands.	<b>Low (No nesting potential).</b> No suitable nesting or foraging habitat is present in the study area that is almost entirely developed and lacks oak trees; therefore this species is not expected on site.
Black swift <i>Cypseloides niger</i> (nesting)	BCC	CSC	Breeds in areas with cliff faces, on coasts or inland canyons. Nests are in sheltered crevices or ledges under overhangs near water, such as a seep or waterfall.	<b>Low (Unlikely to nest).</b> May occur over the project study area while foraging. This species would generally be attracted to habitats with more vegetation and foraging opportunity than found on the project site.
San Francisco common yellowthroat <i>Geothlypis trichas sinuatus</i>	BCC	CSC	Forages in various marsh, riparian and upland habitats. Nests on or near the ground in concealed locations.	<b>Low (No nesting potential).</b> No suitable nesting or foraging habitat is present in the study area that is almost entirely developed and lacks riparian vegetation; therefore this species is not expected on site.
Black oystercatcher <i>Haematopus bachmani</i>	BCC	\$3503	Rocky shores along the Pacific coast from the Aleutian Islands to Baja California.	<b>Moderate (Unlikely to nest).</b> Individuals may forage among the riprap along the eastern shoreline of the project site. Nesting not previously documented on eastern shoreline of San Francisco. Observed in Warm Water Cove south of the project site (eBird, 2018).

**TABLE BIO-2 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED ANIMAL SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

<b>Common Name Scientific Name</b>	<b>Federal Status</b>	<b>State Status</b>	<b>Habitat Description / Blooming Period</b>	<b>Potential to Occur in the Study Area</b>
<b>Other Special-Status Species (cont.)</b>				
<b>Birds (cont.)</b>				
California gull <i>Larus californicus</i>	--	WL, §3503	Colonial nester, sometimes with other bird species. Breeds primarily at lakes and marshes in interior western North America from Canada south to eastern California and Colorado. Birds that breed inland are migratory, most moving to the Pacific coast in winter.	<b>Present (Unlikely to nest).</b> Breeds in large numbers at the salt ponds of south San Francisco Bay. May forage off-shore of the study area.
Western gull <i>Larus occidentalis</i>	--	§3503	Colonial nester on offshore islands or piers, sometimes with seabirds.	<b>Present (Potential to nest).</b> Breeds in San Francisco Bay Area. May forage off-shore of the study area and nest on building roofs of the study area and the dilapidated offshore piers within the study area. Previous nesting sites documented at Pier 60 and 64 north of the study area. <sup>2</sup>
Short-billed dowitcher <i>Limnodromus griseus</i>	BCC	§3503	Saltwater tidal flats, beaches, and salt marshes during migration.	<b>Low (No nesting potential).</b> Common winter migrant that could occur along the eastern shoreline of the study area during low tide events.
Marbled godwit <i>Limosa fedoa</i>	BCC	§3503	Shoreline mudflats and beaches.	<b>Low (No nesting potential).</b> Common winter migrant that could occur along the eastern shoreline of the study area during low tide events.
Alameda song sparrow <i>Melospiza melodia pusillula</i>	--	CSC	Salt marshes of eastern and south San Francisco Bay.	<b>Low (No nesting potential).</b> No suitable saltmarsh vegetation for nesting or foraging is present in the study area that is almost entirely developed; therefore this species is not expected on site.
San Pablo song sparrow <i>Melospiza melodia samuelis</i>	--	CSC	Salt marshes of eastern and north San Francisco Bay.	<b>No Potential (No nesting potential).</b> No suitable saltmarsh vegetation for nesting or foraging is present in the study area that is almost entirely developed. The study area is outside of the understood range for this species; therefore this species is not expected on site.
Long-billed curlew <i>Numenius americanus</i>	BCC	WL, §3503	Breeds in upland shortgrass prairies and wet meadows in northeastern California in gravelly soils. Winter visitor to the San Francisco Bay Area.	<b>Low (No nesting potential).</b> Unlikely to occur event during low tide events within the study area due to limited sandy areas for foraging.
Whimbrel <i>Numenius phaeopus</i>	BCC	§3503	Saltwater tidal flats, beaches, and salt marshes during migration.	<b>Low (No nesting potential).</b> Unlikely to occur event during low tide events within the study area due to limited foraging habitat for this species.

<sup>2</sup> Golden Gate Audubon Society and San Francisco Bay Bird Observatory, 2009. Summary Report of Avian Surveys Conducted in 2008 at Dilapidated Piers and Other Structures along the Port of San Francisco's Southern Waterfront Properties. Prepared by Noreen Weeden and Michael Lynes, September 23.

**TABLE BIO-2 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED ANIMAL SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	Habitat Description / Blooming Period	Potential to Occur in the Study Area
Other Special-Status Species (cont.)				
<b>Birds (cont.)</b>				
Osprey <i>Pandion haliaetus</i>	--	WL, §3503	Habitat varies greatly and usually includes adequate supply of accessible fish, shallow waters, open and elevated nest sites (10-60 feet in height), and artificial structures such as towers. Builds large platform stick nests near or in open waters.	<b>Moderate (Potential to nest).</b> Known to forage in San Francisco Bay and recently nest at Pier 80. Open buildings and structures of the project site and towers of the study area provide potential nesting sites for this species.
Double-crested cormorant <i>Phalacrocorax auritus</i>	--	WL, §3503	Rookery breeder in coastal areas and inland lakes in fresh, saline, and estuarine waters.	<b>Present (Potential to nest).</b> Abundant in San Francisco Bay. May forage off-shore of the study area and nest on the dilapidated offshore piers of the study area.
Nuttall's woodpecker <i>Picoides nuttallii</i>	BCC	§3503	Oak and riparian woodlands.	<b>Low (No nesting potential).</b> No suitable nesting or foraging habitat is present in the study area that is almost entirely developed and lacks riparian vegetation and oak woodlands; therefore this species is not expected on site.
Black skimmer <i>Rynchops niger</i> (nesting colony)	BCC	CSC	Sandy beaches, gravel and shell bars with sparse vegetation along the coast. Colony breeders which nest on the ground in shallow scrape nests.	<b>Low (No nesting potential).</b> May forage over the open water off-shore of the project study area.
Allen's hummingbird <i>Selasphorus sasin</i>	BCC	§3503	Brush and woodlands.	<b>Moderate (Potential to nest).</b> May forage and nest within fennel and coyote brush shrubs of the project site.
Lawrence's goldfinch <i>Spinus lawrencei</i>	BCC	§3503	Open woodlands, chaparral near fields for foraging seeds.	<b>Low (No nesting potential).</b> Uncommon to San Francisco. Could occur on a transient basis and forage on fennel of the project site.
Caspian tern <i>(Sterna caspia)</i>	BCC	*	Nests on shorelines and feeds on fish and crustaceans in open water or shorelines.	<b>Present (Potential to nest).</b> Breeds in San Francisco Bay. May forage off-shore of the study area and nest on the dilapidated offshore piers of the study area. Previous nesting sites documented at Pier 60 and 64 north of the study area <sup>3</sup> .
Barn owl <i>Tyto alba</i>	--	§3503. 5	Open areas including chaparral, grassland, riparian, wetlands.	<b>Moderate (Potential to nest).</b> Could forage over ruderal and developed areas of the study area and nest in vacant buildings of the project site.

3 Golden Gate Audubon Society and San Francisco Bay Bird Observatory, 2009. Summary Report of Avian Surveys Conducted in 2008 at Dilapidated Piers and Other Structures along the Port of San Francisco's Southern Waterfront Properties. Prepared by Noreen Weeden and Michael Lynes, September 23.

**TABLE BIO-2 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED ANIMAL SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

Common Name Scientific Name	Federal Status	State Status	Habitat Description / Blooming Period	Potential to Occur in the Study Area
Other Special-Status Species (cont.)				
<b>Mammals</b>				
Pallid bat <i>Antrozous pallidus</i>	--	CSC, WBW G: High	Prefers caves, crevices, hollow trees, or buildings in areas adjacent to open space for foraging. Associated with lower elevations in California.	<b>Moderate.</b> Suitable roosting habitat for this species is available within vacant buildings of the project site.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	--	CSC, WBW G: High	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings of rocky areas with caves or tunnels. Roosting sites limited. Extremely sensitive to human disturbance.	<b>Low.</b> Suitable roosting habitat for this species is available within vacant buildings of the project site; however high levels of human disturbance in the project vicinity may discourage use.
Western red bat <i>Lasiurus blossevillei</i>	--	CSC, WBW G: High	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.  Could forage over San Francisco Bay.	<b>Low.</b> Suitable roosting sites for this species are not found within the project site. The few eucalyptus trees located on Irish Hill north of the Project Site are fairly exposed and are unlikely to support roosting sites for this species that prefers broad-leaved riparian trees.
Hoary bat <i>Lasiurus cinereus</i>	--	*, WBW G: Mediu m	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths; requires water.  Could forage over San Francisco Bay.	<b>Low.</b> Suitable roosting sites not found within the project site. The few eucalyptus trees located on Irish Hill north of the project site are fairly exposed and are unlikely to support roosting sites for this species.
Yuma myotis <i>Myotis yumanensis</i>	--	*, WBW G: Low-Mediu m	Optimal habitats are open forests and woodlands with water sources to feed over. Roosts in buildings, trees, mines, caves, bridges, and rock crevices. Maternity colonies active May through July.	<b>Moderate.</b> Suitable roosting habitat for this species is available within vacant buildings of the project site.
American badger <i>Taxidea taxus</i>	--	CSC	Open grasslands with loose, friable soils.	<b>No Potential.</b> No suitable habitat present on site.
Point Reyes jumping mouse <i>Zapus trinitatus orarius</i>	--	CSC	Upland areas of bunch grass in marshes in Point Reyes.	<b>No Potential.</b> Study area is south of the known range for this species. No suitable habitat is present on site.

**TABLE BIO-2 (CONTINUED)**  
**SPECIAL-STATUS OR OTHERWISE PROTECTED ANIMAL SPECIES THAT MAY OCCUR IN THE TERRESTRIAL STUDY AREA**

NOTES:

\* The project study area for terrestrial biological resources includes the project site and landside areas adjacent to the project site with similar habitat composition that includes developed or paved areas with long-standing industrial uses.

The "Potential for Effect" category is defined as follows:

Present = Species was observed during reconnaissance or focused surveys of the project area.

High = Species is expected to occur, habitat meets species requirements and is of moderate or high quality, and the study area is within the known species range.

Moderate = Habitat is marginally suitable (i.e. of low or moderate quality) or the study area is within the known range of the species, even though the species was not observed during biological surveys.

Low = Habitat does not meet species requirements as currently understood in the scientific community or the site is not within a species' geographic range.

No Potential = Habitat does not meet species requirements or the species is presumed to be extirpated from the project area or region based on the best scientific information available.

FESA = Federal Endangered Species Act, CESA = California Endangered Species Act,  
CNDDDB = California Natural Diversity Database

Federal: U.S. Fish and Wildlife Service (USFWS)

FE = Listed as "endangered" under the FESA

FT = Listed as "threatened" under the FESA

FPD = Proposed delisted

FD = Delisted

BCC = Bird of Conservation Concern

State: California Department of Fish and Wildlife (CDFW)

CE = Listed as "endangered" under the CESA

CT = Listed as "threatened" under the CESA

CD = Delisted

CSC = CDFW designated "species of special concern"

CFP = CDFW designated "fully protected"

SCE = CDFW designated "candidate endangered"

SCT = CDFW designated "candidate threatened"

WL = CDFW designated "watch list"

§3503 = Eggs, Nests, and Nestlings Protected under Section 3503 of the California Fish and Game Code

§3503.5 = Eggs, Nests, and Nestlings of Falconiformes and Strigiformes Protected under Section  
3503.5 of the California Fish and Game Code

\* = California special animal

Other: Western Bat Working Group (WBWG)

Low = Stable population

Medium = Need more information about the species, possible threats, and protective actions to implement.

High = Imperiled or at high risk of imperilment.

SOURCES:

CDFW, 2018. California Natural Diversity Database (CNDDDB) Rarefind version 5 query of the San Francisco North and San Francisco South USGS 7.5-minute topographic quadrangles, Commercial Version. Accessed August 13, 2018.

U.S. Fish and Wildlife Service (USFWS), 2018. My Project, IPaC Trust Resource Report and Official Species List of Federally Endangered and Threatened Species that may occur in the Potrero Power Station Mixed-Use Development Project location, and/or may be affected by the proposed project, August 13, 2018.

**TABLE BIO-3**  
**SPECIAL-STATUS FISH AND MARINE MAMMAL SPECIES THAT MAY OCCUR IN THE BAY WATERS OF THE STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	Habitat Description	Potential to Occur in the Study Area	Time Period Present in Study Area Waters
<b>Fish</b>					
Sacramento River winter-run ESU Chinook salmon <i>Oncorhynchus tshawytscha</i>	FE/-	CE	Ocean waters, Sacramento and San Joaquin Rivers; Migrates from ocean through San Francisco Bay-Delta to freshwater spawning grounds	<b>Low.</b> No foraging of spawning habitat for this species is present. No streams supporting spawning runs are present within or in the vicinity of the project site. There is a low potential for incidental occurrence of this species if individuals stray from migration routes.	Adults - November and December Juveniles – fall and winter
Central Valley spring-run ESU Chinook salmon <i>O. tshawytscha</i>	FT/-	CT	Ocean waters, Sacramento and San Joaquin Rivers; Migrates from ocean through San Francisco Bay-Delta to freshwater spawning grounds	<b>Low.</b> No foraging of spawning habitat for this species is present. No streams supporting spawning runs are present within or in the vicinity of the project site. There is a low potential for incidental occurrence of this species if individuals stray from migration routes.	Adults - late winter to spring Juveniles - fall through spring
Central Valley fall-run/late fall-run ESU Chinook salmon <i>O. tshawytscha</i>	FSC/-	-	Ocean waters, Sacramento and San Joaquin Rivers; Migrates from Ocean through San Francisco Bay-Delta to freshwater spawning grounds	<b>Low.</b> No foraging of spawning habitat for this species is present. No streams supporting spawning runs are present within or in the vicinity of the project site. There is a low potential for incidental occurrence of this species if individuals stray from migration routes.	Adults - June through September Juveniles - winter through summer
Central Valley DPS steelhead <i>O. Mykiss</i>	FT/-	-	Ocean waters, Sacramento and San Joaquin Rivers; Migrates from ocean through San Francisco Bay-Delta to freshwater spawning grounds	<b>Low.</b> No foraging or spawning habitat for this species is present. No streams supporting spawning runs are present within or in the vicinity of the marine study area. There is a low potential for incidental occurrence of this species if individuals stray from migration routes.	Adults - winter and spring Juveniles - year-round
Central California coast DPS steelhead <i>O. mykiss</i>	FT/-	CSC	Ocean waters, Sacramento and San Joaquin Rivers; Migrates from Ocean through San Francisco Bay-Delta to freshwater spawning grounds	<b>Moderate.</b> No foraging or spawning habitat for this species is present. No streams supporting spawning runs are present within or in the vicinity of the marine study area. There is a low potential for incidental occurrence of this species if individuals are lost or swept into the area by currents.	Adults - winter Juveniles – year-round
Green Sturgeon (Southern DPS) <i>Acipenser medirostris</i>	FT/-	CSC	Marine and estuarine environments and Sacramento River; All of San Francisco Bay-Delta	<b>Present.</b> This species migrates from the Pacific Ocean to spawning habitat in the Sacramento River watershed but may forage in or near the project area.	Year-round

**TABLE BIO-3 (CONTINUED)**  
**SPECIAL-STATUS FISH AND MARINE MAMMAL SPECIES THAT MAY OCCUR IN THE BAY WATERS OF THE STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	Habitat Description	Potential to Occur in the Study Area	Time Period Present in Study Area Waters
<b>Fish (cont.)</b>					
Longfin smelt <i>Spirinchus thaleichthys</i>	FC/-	CT	Throughout the nearshore coastal waters and open waters of San Francisco Bay- Delta including the river channels and sloughs of the Delta	<b>Present.</b> This species is documented to inhabit the deep channels of Central Bay for most of the year, including the waters adjacent to the project site.	Year-round
<b>Marine Mammals</b>					
Southern Sea Otter <i>Enhydra lutris nereis</i>	FT	CFP	Nearshore environments between Santa Barbara and Half Moon Bay. Although historic inhabitants of San Francisco Bay prior to being hunted to near extinction, occasional sightings of otters within the Bay occur.	<b>Low.</b> Species is an infrequent visitor to San Francisco Bay and historically have limited their visitations to the waters between the Golden Gate and Alcatraz Island, including Richardson Bay.	Potentially Year-round
Gray whale <i>Eschrichtus robustus</i>	FDL/P	-	Predominantly coastal waters, although occasional individuals enter the Bay-Delta and have been observed swimming up the Sacramento River and into the South Bay.	<b>Low.</b> Species is an infrequent visitor to San Francisco Bay.	December to April, during migration from Alaska to Baja California, occasionally enter Bay-Delta, transient
Humpback whale <i>Megoptera noveangli</i>	FE/FD	-	Predominantly coastal waters, although occasional individuals enter the Bay-Delta	<b>Low.</b> Species is an infrequent visitor to San Francisco Bay.	April to December, during migration, occasionally enter the Bay-Delta, transient
Northern Elephant Seal <i>Mirounga angustirostris</i>	-/P	-	Northern elephant seals are the largest phocid, or "true" seal, in the Northern Hemisphere. They are found in the eastern and central North Pacific Ocean. They range as far north as Alaska and as far south as Mexico, with established Central California breeding colonies on the Farallon Islands, at Año Nuevo State Park, and near San Simeon, California. In recent years, young -of-the-year individuals have been observed hauling out on the sandy beach at Crissy field.	<b>Low.</b> Occurrence and presence within Central Bay has steadily increased over recent years with individuals entering the Bay on an annual basis. Additionally, its presence beyond the Central Bay waters between the Golden Gate and Alcatraz Island is also increasing with recent occurrences in North Bay. No sightings in south Central Bay have been reported as yet.	Primarily April to August with occasional occurrences in October and November. Not known to be present beyond the western segment of Central Bay.

**TABLE BIO-3 (CONTINUED)**  
**SPECIAL-STATUS FISH AND MARINE MAMMAL SPECIES THAT MAY OCCUR IN THE BAY WATERS OF THE STUDY AREA**

Common Name <i>Scientific Name</i>	Federal Status	State Status	Habitat Description	Potential to Occur in the Study Area	Time Period Present in Study Area Waters
<b>Fish (cont.)</b>					
Harbor porpoise <i>Phocoena phocoena</i>	-/P	-	An inshore species inhabiting shallow, coastal waters and occasional large rivers, including San Francisco Bay-Delta	<b>Moderate.</b> The resident population has been steadily increasing in numbers and extending its foraging range within the Bay beyond the waters between the Golden Gate and Alcatraz Island. Observations have been made as far north as the Napa River mouth to the north and the Oakland-San Francisco Bay Bridge to the south.	Year-round
Pacific harbor seal <i>Phoca vitulina richardsii</i>	-/P	-	Coastal waters, and throughout Bay-Delta	<b>Moderate.</b> Species frequents the waters of the San Francisco shoreline.	Year-round
Bottlenose Dolphin <i>Tursiops truncatus</i>	-/P	—	Found along the California coastline, bottlenose dolphins segregate into coastal or oceanic ecotypes with the coastal ecotype inhabiting waters within 1- Kilometer of shore normally between Baja, California and Point Conception. During El Niño events and in recent years, bottlenose dolphins have been observed as far as San Francisco Bay with individuals making occasional forays to the Golden Gate.	<b>Low.</b> Documented Central Bay presence is currently limited to waters between the Golden Gate and Alcatraz Island; individuals are capable of foraging over a larger area if prey fish are present.	Potentially Year-round
California sea lion <i>Zalophus californianus</i>	-/P	-	Coastal waters, and throughout Bay-Delta	<b>Moderate.</b> Species frequents the waters of the San Francisco shoreline, predominantly in west Central Bay, but will forage throughout the Bay.	Year-round

**NOTES:**

The "Potential for Occurrence within the Project Area" category is defined as follows:

High = Suitable foraging or spawning/rookeries/birthing habitat is present and/or the species has been documented to be present throughout the year and/or in substantial numbers.

Moderate = Suitable foraging or spawning/rookeries/birthing habitat is present and/or the species has been documented to be present for part of the year

Low = Suitable foraging or spawning/rookeries/birthing habitat is present, but the species has either not been documented to be present or if present, the presence is infrequent.

No Potential = Suitable foraging or spawning/rookeries/birthing habitat is not known to be present and the species has not been documented to occur.

FESA = Federal Endangered Species Act, MMPA = Marine Mammal Protection Act, CESA = California Endangered Species Act



**TABLE BIO-3 (CONTINUED)**  
**SPECIAL-STATUS FISH AND MARINE MAMMAL SPECIES THAT MAY OCCUR IN THE BAY WATERS OF THE STUDY AREA**

**STATUS CODES:**

Federal: U.S. Fish and Wildlife Service (USFWS)

FDL = Delisted

FE = Listed as "endangered" (in danger of extinction) under FESA

FT = Listed as "threatened" (likely to become Endangered within the foreseeable future) under FESA

FC = Candidate to become a proposed species

FSC = Former "federal species of concern". The USFWS no longer lists Species of Concern but recommends that species considered to be at potential risk by a number of organizations and agencies be addressed during project environmental review. \*NMFS still lists "Species of Concern".

Federal: National Oceanographic and Atmospheric Administration (NOAA) MMPA

FD = Depleted Population

P = Federally Protected

State: California Department of Fish and Wildlife (CDFW)

CE = Listed as "endangered" under the CESA

CT = Listed as "threatened" under the CESA

CSC = CDFW designated "species of special concern"

**SOURCES:**

Bartling, R. 2006. Pacific herring. Status of the Fisheries Report. California Department of Fish and Game

Moyle, P. B. 2002. Inland Fishes of California. University of California Press, Berkeley, California.

Moyle, P. B., R. M. Yoshiyama, J. E. Williams, and E. D. Wikramanayake. 1995. Fish Species of Special Concern in California. Second edition. Final report to California Department of Fish and Game, contract 2128IF.

NMFS 2005. Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California; Final Rule. Federal Register 70 (170): 52488-52585. September 2, 2005.

NMFS. 2009. Endangered and Threatened Wildlife and Plants: Final Rulemaking to Designate Critical Habitat for the Threatened Southern Distinct Population Segment of North American Green Sturgeon; Final Rule. 50 CFR Part 226. Federal Register (Volume 74, Number 195): 52300 52351. National Oceanic and Atmospheric Administration, National Marine Fisheries Service. URL: <http://www.epa.gov/fedrgstr/EPA-SPECIES/2009/October/Day-09/e24067.htm>. October 9, 2009.

NOAA. 2016. U.S. Pacific Marine Mammal Stock Assessments: 2016. Retrieved from <http://www.nmfs.noaa.gov/pr/pdfs/sars>.

**TABLE BIO-4**  
**MANAGED FISH SPECIES KNOWN TO OCCUR IN CENTRAL SAN FRANCISCO BAY UNDER THE MAGNUSON-STEVENSON ACT**

<b>Fisheries Management Plan</b>	<b>Common Name</b>	<b>Scientific Name</b>	<b>Life Stage</b>	<b>Abundance</b>
Coastal Pelagic	Northern anchovy	<i>Engraulis mordax</i>	J, A	Abundant
	Jack mackerel	<i>Trachurus symmetricus</i>	E, L	Present
Pacific Groundfish	English sole	<i>Parophrys vetulus</i>	J, A	Abundant
	Pacific sanddab	<i>Citharichthys sordidus</i>	E, L, J, A	Present
	Starry flounder	<i>Platichthys stellatus</i>	J, A	Present
	Lingcod	<i>Ophiodon elongatus</i>	J, A	Present
	Brown rockfish	<i>Sebastes auriculatus</i>	J	Present
	Kelp greenling	<i>Hexagrammos decagrammus</i>	J, A	Present
	Leopard shark	<i>Triakis semifasciata</i>	J, A	Present
	Spiny dogfish	<i>Squalus acanthias</i>	J, A	Present
	Big Skate	<i>Raja binoculata</i>	J, A	Present
Pacific Coast Salmonids	Chinook salmon	<i>Oncorhynchus tshawytscha</i>	J, A	Seasonally Present

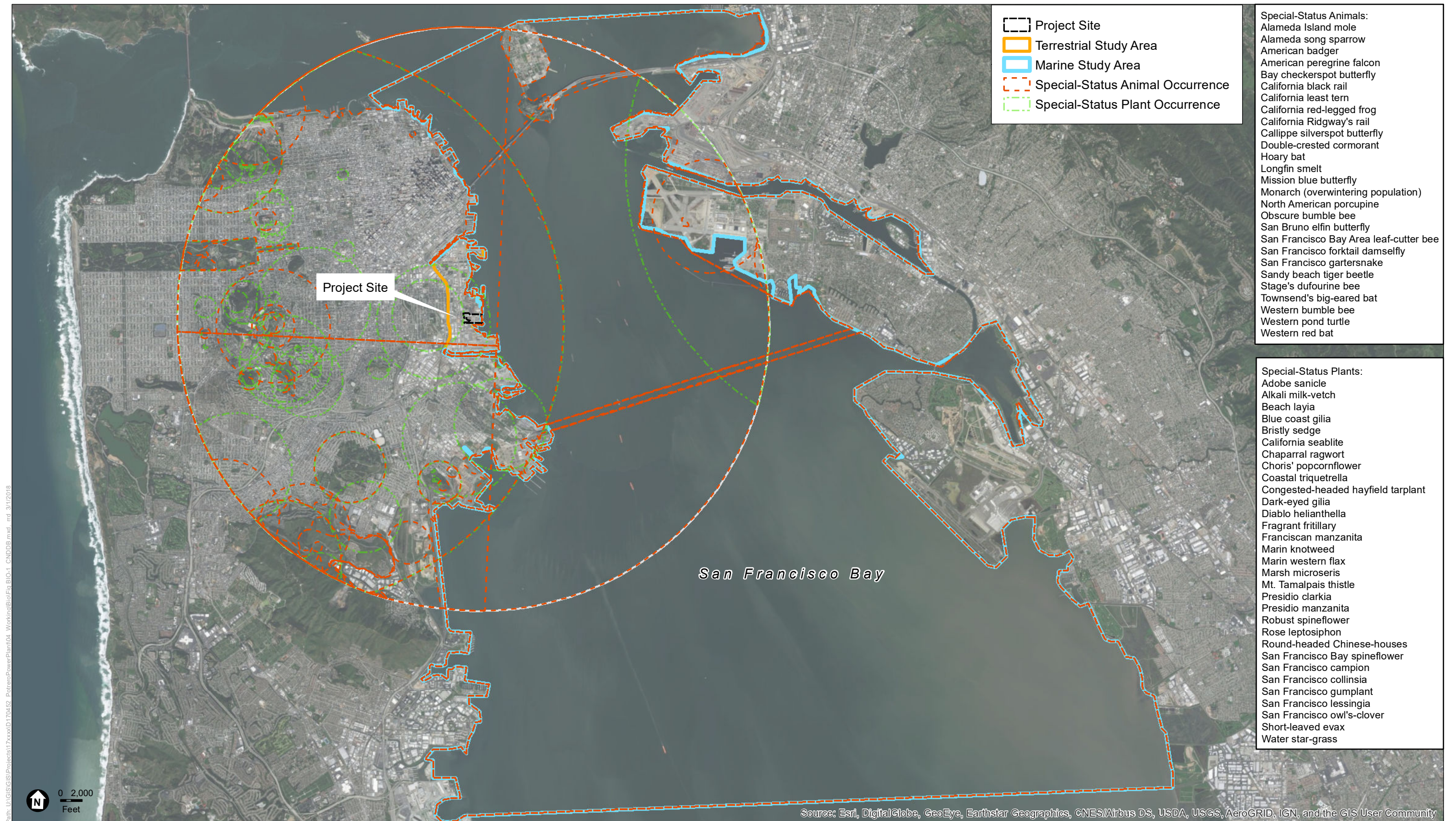
NOTES:  
A = Adult J = Juvenile L = Larvae E = Egg

SOURCES:

Pacific Fishery Management Council. 2017. Coastal Pelagic FMP, Pacific Groundfish FMP, and Pacific Coast Salmonids FMP Species Lists. Available at <https://www.pcouncil.org/>.

California Department of Fish and Wildlife (CDFW). 2014. Interagency Ecological Program - unpublished midwater trawl data 2010-2014. Available at <ftp://ftp.dfg.ca.gov/>.





SOURCE: California Department of Fish and Wildlife, 2018. California Natural Diversity Database (CNDDB) GIS Database. Biogeographic Data Branch, Sacramento, CA. Data dated January, 2018.

Potrero Power Station Mixed-Use Development Project Draft EIR

**Figure BIO-1**  
Special-Status Plant and Animal Species Occurrences  
within 5-miles of the Project Site and the Marine Study Area