ATTACHMENT B

BIOLOGICAL RESOURCES REPORT

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Ecological Consultants

OYSTER POINT DEVELOPMENT PROJECT
BIOLOGICAL RESOURCES REPORT

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April 19, 2017 Project No. 3105-02

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INTRODUCTION

In 2011, the Oyster Point Specific Plan (OPSP) was approved to allow for the development of 2.25 million square feet of Office/R&D uses to be built out in four phases (ID, IID, IIID, and IVD). In addition, two phases of infrastructure and open space improvements were approved throughout the site and across the adjacent site owned by the City of South San Francisco (Phases IC and IIC). Approval of the OPSP was facilitated by a biological resources report that H. T. Harvey & Associates prepared for the project in 2010. That biological resources report was used by Lamphier-Gregory and the City of South San Francisco as the basis for California Environmental Quality Act (CEQA) assessment of impacts to biological resources from implementation of the OPSP.

Oyster Point Development (OPD) now proposes modifications to Phases IIID and IVD of the OPSP to allow for a different mix of uses, including residential and retail, while Phases ID and IID are proposed to remain consistent with the OPSP adopted in 2011. At the request of OPD, we have prepared the current report to update our 2010 biological resources report to (a) include only Phases IIID and IVD, as well as the infrastructure and open space areas associated with Phases IID, IIID, and IVD, and (b) update the biological resources report with any new biological information (e.g., changes in site conditions or listing status of special-status species) since 2010. Thus, components of the larger OPSP that we analyzed in 2010, but that are not applicable to OPD's development (e.g., activities associated with the Oyster Point Marina), are not addressed in this updated report.

PROJECT DESCRIPTION

PROJECT LOCATION

The Oyster Point Development Project site is part of the City of South San Francisco's "East of 101" Planning Area, the traditional and continued core of South San Francisco's industrial and technological businesses, including bioscience offices. The East of 101 area consists of roughly 1700 ac of land bound by San Francisco Bay on the east side, Highway 101 and railway lines on the west, the City of Brisbane on the north, and San Francisco International Airport on the south. The area has a mix of land uses, including industry, warehousing, retail, offices, hotels, marinas, and bioscience research and development facilities. The area is also separated from most of South San Francisco's residential uses by U.S. 101, though some houseboats are permitted at Oyster Point.

The approximately 19-acre (ac) Project site is located approximately 3/4 mile east of Highway 101, at the eastern end (Bay side) of Oyster Point and Marina Boulevards. Figure 1 shows the general Project location and Figure 2 shows the proposed Project boundary.

EXISTING USES

The Project site is a privately owned series of three single-story light-industrial buildings at 375-389 Oyster Point Boulevard that were developed in the early 1980s. Currently these buildings are occupied by a variety of light industrial, office, and R&D tenants. The Oyster Cove Marina to the west of the Project site and the Oyster Point Marina area to the east/southeast are not part of the Oyster Point Development Project site.

PROJECT DESCRIPTION

Phase IIID and IVD, which comprise the majority of the Project area, are proposed to include approximately 1,472,000 square feet of mixed-use program including approximately 1,191 residential units and 22,000 square feet of retail, amenity and flex-use space. The maximum dwelling unit density of Phase IIID and IVD would be approximately 96 units/acre across the combined site. The proposed parking ratios for Phase IIID and IVD are 1.4 stalls/residential unit and 2.5 stalls/1,000 square feet of retail/amenity space. While the majority of the proposed buildings will be 80 feet tall or less, two of the northernmost buildings are proposed to be 175 and 240 feet tall. The remainder of the Project site, along the Bay edge, will be developed as a waterfront promenade with landscaping and paths (i.e., uses similar to those that currently exist).

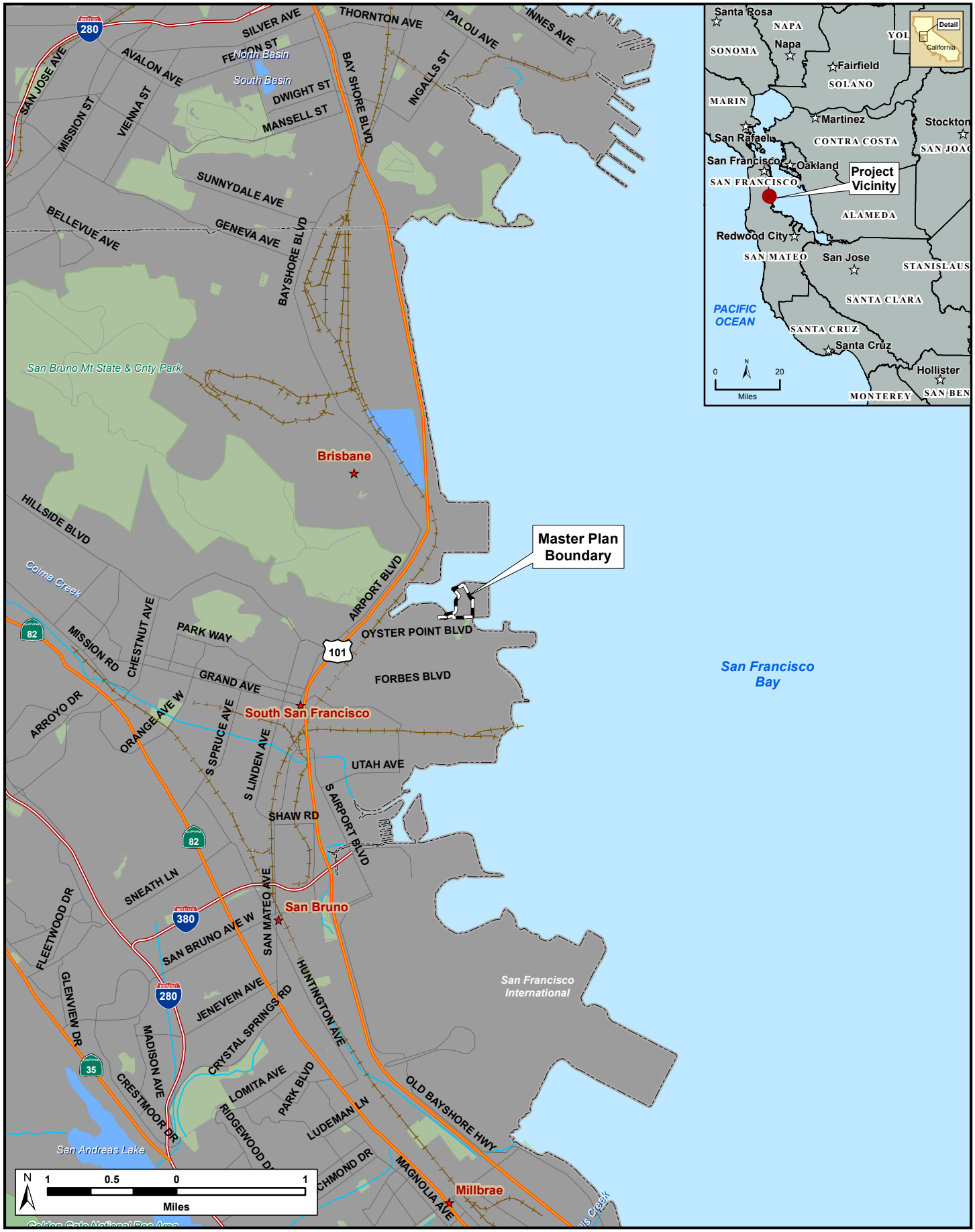

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Figure 1. Vicinity Map
Oyster Point Development (3105-02)
April 2017

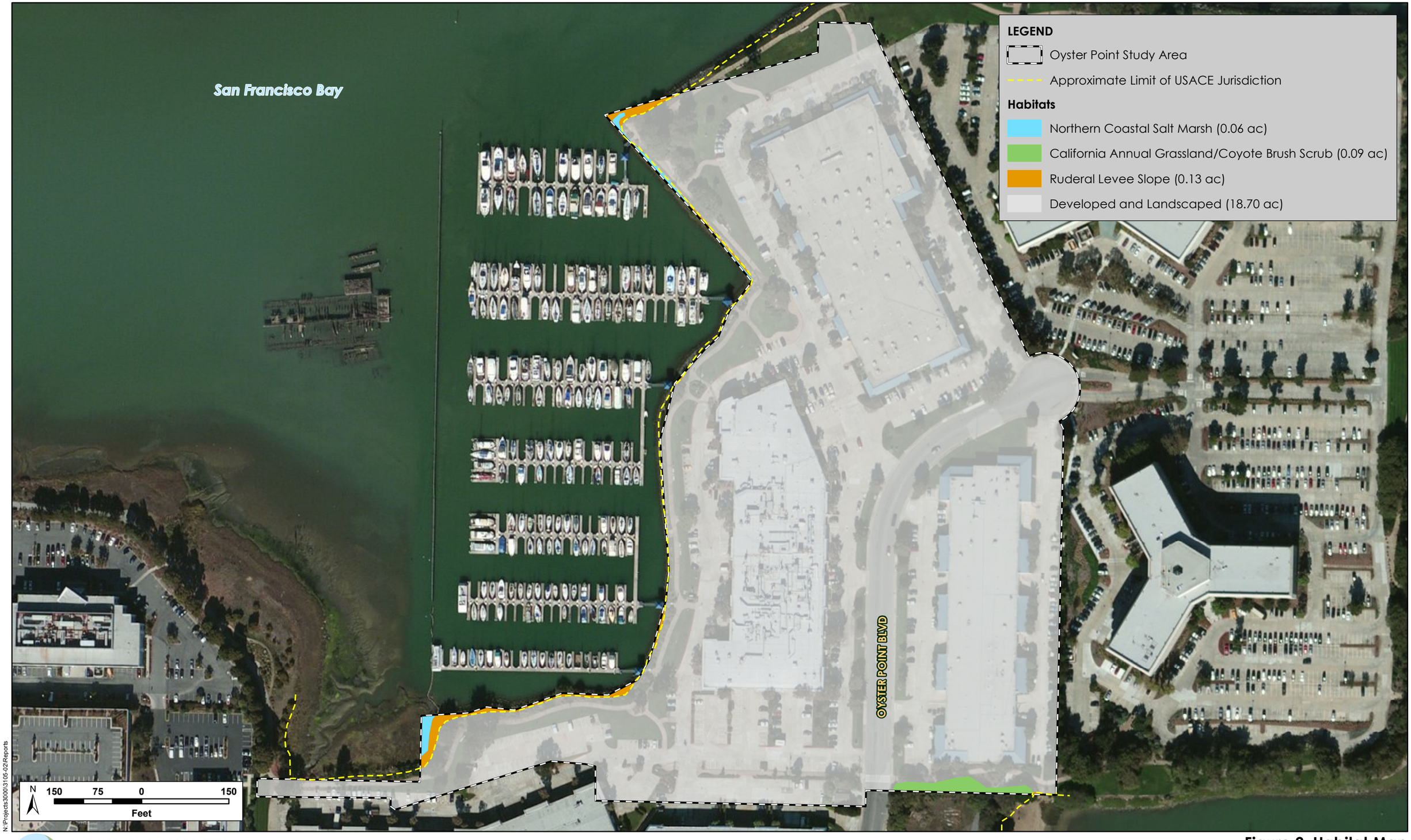

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Figure 2. Habitat Map
Oyster Point Development (3105-02)
April 2017

ENVIRONMENTAL SETTING

GENERAL PROJECT AREA DESCRIPTION

The Project footprint for the Oyster Point Development Project consists of approximately 19 ac of developed and landscaped lands within the City of South San Francisco. The area investigated for biotic resources included the Project footprint and adjacent areas. While the majority of the Project site consists of developed and landscaped lands, small portions of the Project area feature patches of California annual grassland/coyote brush scrub, northern coastal salt marsh, and ruderal levee slopes. A segment of the Bay Trail runs along the western and northern edges of the Project area.

The Project site is located near the northeastern edge of the San Mateo peninsula, north of the San Francisco Airport and south of Candlestick Point, where sandstone and greenstone bedrock of the Franciscan formation intergrades with quaternary alluvium of the Santa Clara formation. The Project area is underlain by soils made up of the Urban Land-Orthents, reclaimed complex, 0 to 2 percent slopes (SCS 1991) and water. The Urban Land-Orthents, reclaimed complex is composed of fill soils and landfill materials placed in areas that were once part of San Francisco Bay, as well as silts built up in adjacent tidal flats that support salt marshes. These soils are well drained and have slight to moderate salinity. The typical profile of this soil type can be variable for the top 40 inches, and underlain with silty clay, and clay from 40 to 60 inches. Within areas mapped by SCS (1991) as Urban Land-Orthents, there may be minor components ($\leq$2%) of the native Novato and Reyes soils, as well as Orthents cut and fill soil complexes.

Elevations on the site range from sea level to approximately 12 ft. The National Wetland Inventory (NWI 1985) depicts four wetland or aquatic habitat types on or near the Project footprint: 1) estuarine, subtidal unconsolidated bottom aquatic habitat within the open waters of San Francisco Bay; 2) estuarine, intertidal, emergent wetland, regularly flooded in the marshes to the west and south of the Oyster Cove Marina; 3) estuarine intertidal rocky shore, regularly flooded, along the northern extent of the peninsula to the east of the Oyster Cove Marina; and 4) estuarine, intertidal, unconsolidated shore irregularly flooded along the north shore of Oyster Cove. The mean annual precipitation varies from 15 to 30 inches, and the mean annual temperature ranges from 54-57 degrees Fahrenheit.

BIOTIC SURVEYS

Prior to conducting field work for our 2010 biological resources report, H. T. Harvey & Associates ecologists reviewed the Draft Oyster Point Master Plan and Design Guidelines (Shorenstein/SKS 2009); the California Department of Fish and Wildlife's (CDFW's) Natural Diversity Database (CNDDB 2010); recent ecological studies of other projects in the Project vicinity, including the Candlestick Point/Hunters Point Shipyard Project Biological Technical Report (PBS&J 2009) and the South San Francisco Ferry Terminal Draft Environmental Impact Report (San Francisco Bay Area Water Transit Authority 2005); and other technical databases and publications on special-status species in the vicinity, in order to assess the current distribution of special-status plants and wildlife in the Project vicinity. Prior to revisiting the site

for this biological resources update in 2017, we reviewed updated CNDDB (2017) information, as well as information on the proposed Oyster Point Development Project provided by OPD.

For our 2010 report, reconnaissance-level field surveys were conducted by H. T. Harvey & Associates plant ecologist Kelly Hardwicke, Ph.D. and wildlife ecologist Nellie Thorngate, M.S. on 11 November 2009. The purpose of these surveys was to: 1) assess existing biotic habitats in the Project area, 2) assess the site for its potential to support special-status species and their habitats, and 3) identify potential jurisdictional habitats such as Waters of the U.S. and riparian habitat. K. Hardwicke again visited the site on 12 December 2009 to further refine mapping of coastal salt marsh vegetation. A follow-up visit was conducted on 5 May 2010 by plant ecologist Catherine Roy, M.S., to assess spring conditions and look for suitable habitat for special-status plants that may not have been apparent during the fall surveys and on 17 September 2010 by wildlife ecologist Robin Carle, M.S. to complement the previous reconnaissance-level surveys.

For the current biological resources update, the Project site was visited by H. T. Harvey & Associates wildlife ecologist Steve Rottenborn, Ph.D., on March 8, 2017 to determine whether site conditions had changed since the 2009-2010 studies, and to assess the potential suitability of the tidal marsh west of the Project site for special-status marsh species such as the California Ridgway's rail (*Rallus obsoletus obsoletus*). In addition, H. T. Harvey plant ecologist Matthew Mosher and K. Hardwicke conducted a site visit on March 16, 2017 to assess the habitat conditions (such as distribution of northern coastal salt marsh) along the shoreline, and to place flagging on the upper limits of marsh vegetation to indicate the BCDC Bay Shoreline for team surveyors. The only noticeable change in biological conditions on the Project site, since the 2009-2010 studies, was a minor increase in the extent of vegetation on the rocked levee slopes along the shoreline. Otherwise, 2017 conditions were nearly identical to conditions assessed in our 2010 report.

BIOTIC HABITATS

Four biotic habitats/land use types occur on the Project site: developed/landscaped, California annual grassland/coyote brush scrub, ruderal levee slope, and northern coastal salt marsh. Wherever possible, habitats were described based on Holland's system of classification (1986), a relatively coarse level of classification based on general species assemblages and broad edaphic characteristics. These habitats are described in detail below, and their distribution within the Project site is shown on Figure 2. Table 1 provides the approximate acreage of each habitat and land use type within the Project boundary.

Table 1. Biotic Habitat/Land Use Acreages within the Oyster Point Development Project Site.

Biotic Habitat/Land Use	Total Area (ac)
Developed/Landscaped	18.70
California Annual Grassland/Coyote Brush Scrub	0.09
Ruderal Levee Slope	0.13
Northern Coastal Salt Marsh	0.06
Total	**18.98**

Developed and Landscaped

Vegetation. The Project area includes approximately 18.70 ac of developed and landscaped land uses comprised of hardscaped roads, buildings, parking lot surfaces, paved trail surfaces, ornamental and landscaped areas (typically irrigated with a mulch base), and irrigated turf. The habitat suitability for rare or native vegetation in these areas is very low, and most areas mapped as developed/landscaped are under altered hydrologic regimes, being either dewatered by hardscape or irrigated to support landscaping. The few naturally occurring plants are typical lawn and sidewalk weeds, such as English daisy (*Bellis perennis*), smooth cat's ear (*Hypochaeris glabra*), and yellow sorrel (*Oxalis corniculata*). All developed areas within the survey area appear to be purposefully and continually maintained, or otherwise are permanently impacted by hardscape and structures.

Wildlife. Developed habitats primarily support common, urban-adapted wildlife species, and overall wildlife abundance and diversity are low. Likewise, landscaped habitats are used sparingly by most wildlife species, largely because of the uniform, open nature of most landscaping, and regular disturbances due to landscape maintenance and use. However animals living in adjacent habitats and migratory birds often exploit foraging opportunities offered by landscaped habitats, and dense shrub and tree landscape components may offer sufficient cover for nesting birds and mammals. Common butterflies such as cabbage whites (*Pieris rapae*) and painted ladies (*Vanessa cardui*), as well as honeybees (*Apis mellifera*) and other common invertebrate species, are expected to use flowering landscape plants for foraging.

Cliff swallows (*Petrochelidon pyrrhonota*), tree swallows (*Tachycineta bicolor*), and barn swallows (*Hirundo rustica*) have been observed at Oyster Point (Sequoia Audubon Society 2001, eBird 2017), and swallows may occasionally nest in the eaves of buildings within the Project area. Black phoebes (*Sayornis nigricans*) and house finches (*Carpodacus mexicanus*), which were observed in the Project area during the reconnaissance survey, also likely nest on buildings and under bridges or other structures on or near the Project site. White-crowned sparrows (*Zonotrichia leucophrys*) and golden-crowned sparrows (*Zonotrichia atricapilla*) were observed foraging and sheltering in landscape shrubbery in the Project area. Hummingbirds including Anna's hummingbirds (*Calypte anna*) and possibly Allen's hummingbirds (*Selasphorus sasin*) forage in areas where the landscaping includes flowering plants. Foraging flocks of yellow-rumped warblers (*Dendroica coronata*) were seen utilizing trees throughout landscaped portions of the Project area. The profusion of trees incorporated into the landscaping in the Oyster Point area host a variety of foraging songbirds throughout the year, and common species such as dark-eyed juncos (*Junco hyemalis)*, northern mockingbirds (*Mimus polyglottos*), and American robins

(*Turdus migratorius*), all of which were observed on the site during the reconnaissance survey, may nest in landscape shrubs or trees on the Project site.

Mexican free-tailed bats (*Tadarida brasiliensis*) could roost in small numbers in structures that offer crevices or cavities (such as weep holes or vents) for shelter, though likely in low numbers given the relatively cool conditions along the edge of the bay. Small, non-native mammals such as house mice (*Mus musculus*), eastern gray squirrels (*Sciurus carolinensis*), and fox squirrels (*Sciurus niger*) are expected to forage in shrubs and trees in the landscaped potions of the Project area, and invasive Norway rats (*Rattus norvegicus*) are expected to use landscaping as well as inhabiting storage areas and garbage facilities at least in small numbers. Feral cats (*Felis catus*) were observed on the Project site, and may shelter in or under buildings and in landscape shrubs in the Project area. Urban-adapted native mammals such as raccoons (*Procyon lotor*) and striped skunks (*Mephitis mephitis*) likely occur in this land use type as well.

California Annual Grassland/Coyote Brush Scrub

Vegetation. Approximately 0.09 ac in the extreme southeastern corner of the Project site is dominated by California annual grassland/coyote brush scrub. Non-native annual grass species such as wild oats (*Avena fatua*), rip-gut brome (*Bromus diandrus*), and mouse barley (*Hordeum murinum*) are dominant throughout the annual grassland; other dominant herbaceous species include wild radish (*Raphanus sativa*), smooth cat's ear (*Hypochaeris glabra*), annual ryegrass (*Lolium multiflorum*), birds-foot trefoil (*Lotus corniculatus)*, flax (*Linum sp*.), and blue-eyed grass (*Sisyrinchium bellum*). Some shrubs such as coyote brush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), and big saltbush (*Atriplex lentiformis*) have become established within this habitat type as well. These are spaced sporadically and range in height from approximately 6-8 feet, and are between 5-8 feet wide.

Wildlife. The grassland and scrubby habitats within the Project boundaries host a variety of common invertebrates, which in turn provide food for widespread reptiles such as western fence lizards (*Sceloporus occidentalis*), and for a number of bird and mammal species. A western meadowlark (*Sturnella neglecta*) and a Say's phoebe (*Sayornis saya*) were observed foraging at the southwestern corner of the Project site. Although other grassland-associated species such as white-tailed kites (*Elanus leucurus*), American kestrels (*Falco sparverius*), and loggerhead shrikes (*Lanius ludovicianus*) occur in the Project vicinity (Sequoia Audubon Society 2001, eBird 2017) and may forage in the Project area on occasion, the grassland on the Project site is too limited to support nesting pairs of these species. Nammals such as house mice, valley pocket gopher (*Thomomys bottae*), striped skunks, and raccoons occur in these habitats.

Ruderal Levee Slope

Vegetation. Ruderal levee slope covers approximately 0.13 ac within the Project site, entirely along the edges of the Bay shoreline. This habitat is primarily composed of large rock rip-rap on varying degrees of slope approximately 10-15 ft wide at the edge of the water and tidal flats. Vegetation in this community is found predominantly between the rocks and bordering the top of the slopes. It is dominated by non-native species such as wild radish, wild oats, bristly ox-tongue (*Picris echioides*), and buckthorn plantain (*Plantago aristata*). In some areas, the levee intergrades somewhat with salt marsh species. Plants with higher salt tolerances such as alkali

Russian thistle (*Salsola soda*), sea fig (*Carpobrotus sp*.), and saltgrass (*Distichlis spicata*) occur sporadically. In other areas, vegetation is influenced by landscape plantings such as prostrate manzanita (*Arctostaphylos* sp.) and nasturtium (*Tropaeolum majus*) that have been planted along the top edges of the rip-rap. Plants growing among the rocks above the high tide line include non-native volunteer species such as New Zealand spinach (*Tetragonia tetragonioides*), spring vetch (*Vicia sativa*), and native saltgrass.

In our 2010 report, this community type was called "armored rock levee slope". We have modified this designation for this updated biological resources report because the amount of vegetation within these areas appears somewhat higher than in 2010, with no exposed rock in some locations.

Wildlife. Ruderal levee slope communities such as those along the periphery of the Project area provide limited wildlife habitat because of their unyielding surfaces, lack of vegetation, and proximity to open marine water, but are nonetheless utilized by several species for foraging or refugia. Rocky shore crab species could shelter in crevices between the rocks, foraging on algae that grow there. Rocky shore-associated birds such as black turnstones (*Arenaria melanocephala*) have been observed foraging occasionally on the rocks at Oyster Point (eBird 2017). The levee slopes also could provide habitat for nuisance species such as Norway rats, black rats (*Rattus rattus*), and feral cats, which are known to prey upon native wildlife species.

Northern Coastal Salt Marsh

Vegetation. Approximately 0.06 ac of northern coastal salt marsh occurs in the Project area in narrow strips at the toes of the rock levees. In the southwestern corner of the Project area, this marsh continues downslope from and west of the Project boundary. These areas are in the intertidal zone, and are influenced daily by rising and falling tides within the bay. In slightly higher elevation areas of the marshes, natives such as saltgrass and spearscale (*Atriplex triangularis*) occur with ruderal, non-native species such as brass buttons (*Cotula coronopifolia*). As the elevation decreases these species give way to a mix of native coastal salt marsh and alkaline-adapted species such as pickleweed (*Salicornia virginica*), sea lavender (*Limonium californicum*), and marsh jaumea (*Jaumea carnosa*). Other common plants in the salt marsh include coast gumweed (*Grindelia stricta*) and red sand spurry (*Spergularia rubra*).

The salt marsh southwest of the Oyster Cove Marina has accumulated sediment and supports a small but productive tidal wetland community. The vegetation here matches that described above but covers a larger, more continuous area. It also supports a suite of bulrushes (*Schoenoplectus sp.*), rushes (*Juncus sp*.), and cattails (*Typha sp*.), which indicate the influence of freshwater from the adjacent drainage. A large population of cordgrass (*Spartina sp*.) was observed growing in this marsh during the November 2009 site visit. In May 2010 the cordgrass in this marsh was dead, indicating that it too had been controlled through non-native *Spartina* control efforts.

Wildlife. Salt marsh habitats form unique ecological communities in the San Francisco Bay that support wildlife species adapted to a saline environment and frequent cyclic changes in water levels, as well as several more widely-adapted common species. The mudflats associated with Bay salt marsh habitats provide shelter for burrowing invertebrates and rich foraging habitats for a plethora of wildlife species. Mallards (*Anas platyrhynchos*) and snowy egrets (*Egretta thula*)

were observed foraging in the tidal channels in the salt marsh habitat along the southwestern portion of the Project area, as well as roosting higher up in pickleweed beds, and white-crowned sparrows were seen foraging in the highest edges of these salt marshes. Common bird species such as song sparrows (*Melospiza melodia*), house finches (*Carpodacus mexicanus*), and American goldfinches (*Spinus tristis*) that live in adjacent habitats may also forage in the higher portions of these salt marshes on occasion; it is possible that Alameda song sparrows (*Melospiza melodia pusillula*) could be found here in very low numbers. The mudflats and exposed tidal channels within the Project area are probably used by many of the shorebird species known to occur in the Bay Area; during the reconnaissance surveys, we observed black-bellied plovers (*Pluvialis squatarola*), willets (*Catoptrophorus semipalmatus*), California gulls (*Larus californicus*), western gulls (*Larus occidentalis*), snowy egrets, western sandpipers (*Calidris mauri*), black-necked stilts (*Himantopus mexicanus*), long-billed curlews (*Numenius americanus*), and whimbrels (*Numenius phaeopus*) foraging across the flats. Mammals such as rats, striped skunks, and raccoons may forage in the salt marshes in the Project area. However, these marshes are too limited in extent, underdeveloped in vegetation, and isolated from known populations to support salt marsh adapted mammal species such as salt marsh harvest mice (*Reithrodontomys raviventris*) or salt marsh wandering shrews (*Sorex vagrans halicoetes*), and the absence of well-developed channel networks, the narrow nature of the marsh, and the paucity of tall, dense vegetative cover within the majority of the marsh makes this habitat unsuitable for the California Ridgway's rail.

REGULATORY SETTING

Biological resources within the Project site are regulated by a number of federal, state, and local laws and ordinances, as described below.

FEDERAL

Clean Water Act

Areas meeting the regulatory definition of "Waters of the U.S." (jurisdictional waters) are subject to the jurisdiction of the United States Army Corps of Engineers (USACE) under provisions of Section 404 of the 1972 Clean Water Act (Federal Water Pollution Control Act) and Section 10 of the 1899 Rivers and Harbors Act (described below). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as "Waters of the U.S.," tributaries of waters otherwise defined as "Waters of the U. S.," the territorial seas, and wetlands (termed Special Aquatic Sites) adjacent to "Waters of the U.S." (33 CFR, Part 328, Section 328.3). Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987).

Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions (33 CFR, Part 328).

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The State Water Resources Control Board (SWRCB) is the state agency (together with the Regional Water Quality Control Boards [RWQCBs]) charged with implementing water quality certification in California.

Project Applicability. Any work within areas defined as Waters of the U.S. (*i.e.*, wetlands and other waters), including open water and intertidal habitats of San Francisco Bay, and associated wetlands and shoreline areas (extending up to the high tide line or the upper limits of wetlands, whichever is higher), may require a Section 404 fill discharge permit from the USACE and Section 401 Water Quality Certification from the RWQCB. The approximate upslope limits of USACE jurisdiction under the Clean Water Act are shown on Figure 2. A jurisdictional wetland delineation to determine the precise boundaries of USACE jurisdiction has not been performed for the Project.

Porter-Cologne Water Quality Control Act

The RWQCB is responsible for protecting surface, ground, and coastal waters within its boundaries, pursuant to the Porter-Cologne Water Quality Control Act of the California Water

Code. The RWQCB has jurisdiction under Section 401 of the Clean Water Act for activities that could result in a discharge of dredged or fill material to a water body. Federal authority is exercised whenever a proposed project requires a Clean Water Act Section 404 permit from the USACE in the form of a Section 401 Water Quality Certification. State authority is exercised when a proposed project is not subject to federal authority, in the form of a Notice of Coverage, Waiver of Waste Discharge Requirements. Many wetlands fall into RWQCB jurisdiction, including some wetlands and waters that are not subject to USACE jurisdiction. RWQCB jurisdiction of other waters, such as streams and lakes, extends to all areas below the ordinary high water mark.

The RWQCB has no formal technical manual or expanded regulations to help in identifying their jurisdiction. The only guidance can be found in Porter-Cologne Water Quality Control Act, Chapter 2 (Definitions), which states, "'waters of the State' means any surface water or ground water, including saline waters, within the boundaries of the state."

Under the Porter-Cologne Water Quality Control Act, the SWRCB and the nine regional boards also have the responsibility of granting Clean Water Act National Pollutant Discharge Elimination System (NPDES) permits and waste discharge requirements for certain point-source and non-point discharges to waters. These regulations limit impacts to aquatic and riparian habitats from a variety of urban sources.

Project Applicability. As stated above, any Project activities that impact waters of the U.S./State will require 401 Certification and/or a Waste Discharge Requirement from the RWQCB. In the Study Area, these include the same boundaries of aquatic, intertidal, and wetlands/shoreline habitats as described above for areas subject to jurisdiction under the Clean Water Act.

Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act (1899) 33 U.S.C. 403 regulates the construction of structures, placement of fill, and introduction of other potential obstructions to navigation in navigable waters. Under Section 10 of the Act, the building of any wharfs, piers, jetties, and other structures is prohibited without Congressional approval, and excavation or fill within navigable or tidal waters requires the approval of the Chief of Engineers.

The USACE has the authority to issue permits for the discharge of refuse into, or affecting, navigable waters under section 13 of the 1899 Act (33 U.S.C. 407; 30 Stat. 1152). The Act was modified by title IV of P.L. 92-500, October 18, 1972; the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1341-1345; 86 Stat. 877), as amended, established the NPDES permits.

Project Applicability. Within the Project area, all tidally influenced open water and intertidal habitats of San Francisco Bay, the tidal canal at the southern edge of the site, and associated wetlands and shoreline areas (extending up to the mean high water line) are subject to USACE jurisdiction under the Rivers and Harbors Act, and any activities affecting these areas would potentially require a Section 10 Letter of Permission.

Federal Endangered Species Act

The federal Endangered Species Act (FESA) protects listed wildlife species from harm or "take" which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as "take" even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands or if the project requires a federal action, such as a Clean Water Act Section 404 fill permit from the USACE.

The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally listed threatened and endangered wildlife species under the FESA, while the National Marine Fisheries Service (NMFS) has jurisdiction over federally listed, threatened and endangered, marine and anadromous fish.

Project Applicability. Several federally listed species occur in the general vicinity of the Project site. No suitable habitat for these species occurs in the Project area itself, but federally listed animal species that occur, or could potentially occur, in adjacent waters include the green sturgeon (*Acipenser medirostris*), Central California Coast steelhead (*Oncorhynchus mykiss*), and California least tern (*Sterna antillarum browni*).

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act governs all fishery management activities that occur in federal waters within the United States' 200-nautical-mile limit. The Act establishes eight Regional Fishery Management Councils responsible for the preparation of fishery management plans to achieve the optimum yield from U.S. fisheries in their regions. These councils, with assistance from the NMFS, establish Essential Fish Habitat (EFH) in fishery management plans for all managed species. Federal agencies that fund, permit, or implement activities that may adversely affect EFH are required to consult with the NMFS regarding potential adverse effects of their actions on EFH, and respond in writing to recommendations by the NMFS.

Project Applicability. A number of fish species regulated by the Coastal Pelagics and Pacific Groundfish Fisheries Management Plans occur in tidal habitats of San Francisco Bay, including the open water habitats adjacent to the Project site and the limited areas of northern coastal salt marsh on the Project site. Thus, these tidal waters and wetlands are considered EFH.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) was enacted in 1972 and amended through 2007 (16 USC 1631). All marine mammals are protected by the MMPA, which prohibits their take in U.S. Waters. Take is defined in the MMPA as "harass, hunt, capture, kill or collect, or attempt to harass, hunt, capture, kill or collect" [16 USC 1631 Section 3(13)].

Project Applicability. The only two marine mammal species that have potential to occur in the Project vicinity at all regularly are the harbor seal and the California sea lion (*Zalophus californianus*), both of which may occasionally forage in Bay waters near the site. However, neither species is expected to occur on the Project site itself.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA; 16 U.S.C., §703, Supp. I, 1989) prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The trustee agency that addresses issues related to the MBTA is the USFWS. Migratory birds protected under this law include all native birds and certain game birds (*e.g.*, turkeys and pheasants; *Federal Register* 70(2):372-377). This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA protects active nests from destruction and all nests of species protected by the MBTA, whether active or not, cannot be possessed. An active nest under the MBTA, as described by the Department of the Interior in its 16 April 2003 Migratory Bird Permit Memorandum, is one having eggs or young. Nest starts, prior to egg laying, are not protected from destruction.

Project Applicability. All native bird species occurring in the Study Area are protected by the MBTA.

STATE

California Endangered Species Act

The California Endangered Species Act (CESA, Fish and Game Code of California, Chapter 1.5, Sections 2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, the CDFW has jurisdiction over state-listed species. The CDFW regulates activities that may result in "take" of individuals listed under the Act (*i.e.*, "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of "take" under the Fish and Game Code. The CDFW, however, has interpreted "take" to include the "killing of a member of a species which is the proximate result of habitat modification."

Project Applicability. No suitable habitat for State-listed species occurs in the Project area itself. However, State-listed animal species that occur, or could potentially occur, in waters adjacent to the Project area include the longfin smelt (*Spirinchus thaleichthys*) and California least tern.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) is a state law that requires state and local agencies, such as the City of San José, to document and consider the environmental implications of their actions and to refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects. CEQA requires the full disclosure of the environmental effects of agency actions, such as

approval of a general plan update or the projects covered by that plan, on resources such as air quality, water quality, cultural resources, and biological resources. The State Resources Agency promulgated guidelines for implementing CEQA known as the State CEQA Guidelines.

CEQA and the CEQA Guidelines provide guidance in evaluating impacts of projects to biological resources and determining which impacts will be significant. CEQA defines "significant effect on the environment" as "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." Under CEQA Guidelines section 15065, a project's effects on biotic resources are deemed significant where the project would:

> "substantially reduce the habitat of a fish or wildlife species"
>
> "cause a fish or wildlife population to drop below self-sustaining levels"
>
> "threaten to eliminate a plant or animal community"
>
> "reduce the number or restrict the range of a rare or endangered plant or animal"

In addition to the section 15065 criteria that trigger mandatory findings of significance, Appendix G of the CEQA Guidelines provides a checklist of other potential impacts to consider when analyzing the significance of project effects. The impacts listed in Appendix G may or may not be significant, depending on the level of the impact. For biological resources, these impacts include whether the project would:

> "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service"
>
> "have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service"
>
> "have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act"
>
> "interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites"
>
> "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance"
>
> "conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan"

Section 15380(b) of the CEQA Guidelines provides that a species not listed on the federal or state lists of protected species may be considered rare if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the FESA and the

CESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW or species that are locally or regionally rare.

The CDFW has produced three lists (amphibians and reptiles, birds, and mammals) of "species of special concern" that serve as "watch lists". Species on these lists are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Thus, their populations should be monitored. They may receive special attention during environmental review as potential rare species, but do not have specific statutory protection. All potentially rare or sensitive species, or habitats capable of supporting rare species, are considered for environmental review per the CEQA § 15380(b).

The CNPS, a non-governmental conservation organization, has developed lists of plant species of concern in California. Vascular plants included on these lists are defined as follows:

List 1A Plants considered extinct.

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

List 2 Plants rare, threatened, or endangered in California but more common elsewhere.

List 3 Plants about which more information is needed - review list.

List 4 Plants of limited distribution-watch list.

These CNPS listings are further described by the following threat code extensions:

.1—seriously endangered in California;

.2—fairly endangered in California;

.3—not very endangered in California.

Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants appearing on List 1B or List 2 are, in general, considered to meet the CEQA's Section 15380 criteria, and adverse effects to these species may be considered significant. Impacts to plants that are listed by the CNPS on List 3 or 4 are also considered during CEQA review, although because these species are typically not as rare as those on List 1B or List, impacts to them are less frequently considered significant.

Project Applicability. All impacts to biological resources will be considered during CEQA review of the Project.

California Fish and Game Code

The California Fish and Game Code includes regulations governing the use of, or impacts to, many of the state's fish, wildlife, and sensitive habitats. The CDFW exerts jurisdiction over the bed and banks of rivers, lakes, and streams according to provisions of §§1601–1603 of the Fish

and Game Code. The Fish and Game Code requires a Streambed Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or waterbody and for the removal of riparian vegetation.

Certain sections of the Fish and Game Code describe regulations pertaining to certain wildlife species. For example, Fish and Game Code §§3503, 2513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFW. Raptors (*i.e.*, eagles, falcons, hawks, and owls) and their nests are specifically protected in California under Fish and Game Code §3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Non-game mammals are protected by Fish and Game Code §4150, and other sections of the Code protect other taxa.

Project Applicability. All native bird and mammal species that occur in the Project area are protected by the state Fish and Game Code. Because no non-tidal creeks are present in the Project area, no Streambed Alteration Agreement would be required for Project activities.

REGIONAL

McAteer-Petris Act

The McAteer-Petris Act created the San Francisco Bay Conservation and Development Commission (BCDC) in 1965. BCDC's mission is to preserve the San Francisco Bay from unregulated filling. BCDC has prepared a comprehensive study of the Bay and determined how future development of the Bay should occur, resulting in the production of the San Francisco Bay Plan in 1968. BCDC's jurisdiction includes all areas below the mean high tide line and an area within a shoreline band that extends landward for 100 feet from the mean high tide line. The McAteer-Petris Act includes a permitting process for projects that would place fill in, on, or over any part of BCDC's jurisdiction.

Project Applicability. Portions of the Project in, on, or over the Bay, including areas within 100 feet of the mean high tide elevation (or, in areas supporting coastal wetlands, within 100 feet of the mean high tide elevation plus 5 feet), are within BCDC's jurisdiction, and BCDC approval of any activities within these areas would be required.

City of South San Francisco Tree Preservation Ordinance

Under Chapter 13.30 of the South San Fancisco Municipal Code, the City of South San Francisco maintains a tree preservation ordinance designed to:

(a) Provide standards and requirements for the protection of certain large trees (trees with a circumference of 48 inches or greater at 54 inches above the natural grade) and trees and stands with unique characteristics (having been so designated by the director);

(b) Provide standards and requirements for planting and maintenance of trees for new development; and

(c) Establish recommended standards for planting and maintaining trees on property that is already developed. This chapter achieves these objectives in ways that support and encourage the reasonable economic enjoyment of private property, not in ways that prevent it. (Ord. 1271 § 1 (part), 2000: Ord. 1060 § 1 (part), 1989).

Protected trees are not to be removed or pruned without a permit from the City, and must be protected from development-related impacts such as soil compaction and underground trenching for utilities. Additionally, new developments must conform to a series of tree planting requirements.

Project Applicability. No trees of protected size or that were known to be protected by special designation from the City director (as demarcated by a fence) were found to occur on-site. Because the Oyster Point Development Project will be located in an areas designated as community commercial, business commercial, coastal commercial, office or business and technology park, one landscape tree must be planted for every 2000 square feet of new floor area.

SPECIAL-STATUS SPECIES AND SENSITIVE HABITATS

CEQA requires assessment of the effects of a project on species that are "threatened, rare, or endangered"; such species are typically described as "special-status species". For the purpose of environmental review of the Project, special-status species have been defined as described below. Impacts to these species are regulated by some of the federal, state, and local laws and ordinances described under "Regulatory Setting" above.

For purposes of this analysis, "special-status" plants are considered plant species that are:

- Listed under the FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under the CESA as threatened, endangered, rare, or a candidate species.
- Listed by the CNPS as rare or endangered on Lists 1A, 1B, 2, 3, or 4.

For purposes of this analysis, "special-status" animals are considered animal species that are:

- Listed under the FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under the CESA as threatened, endangered, or a candidate threatened or endangered species.
- Designated by the CDFW as a California species of special concern.
- Listed in the California Fish and Game Code as a fully protected species (birds at §3511, mammals at §4700, reptiles and amphibians at §5050, and fish at §5515).

Figures 3 and 4 depict the CNDDB-mapped records of plants and wildlife, respectively, in the vicinity of the Project area. These generalized maps are valuable on a historical basis, and show areas where special-status species occur or have occurred previously.

Special-status Plant Species

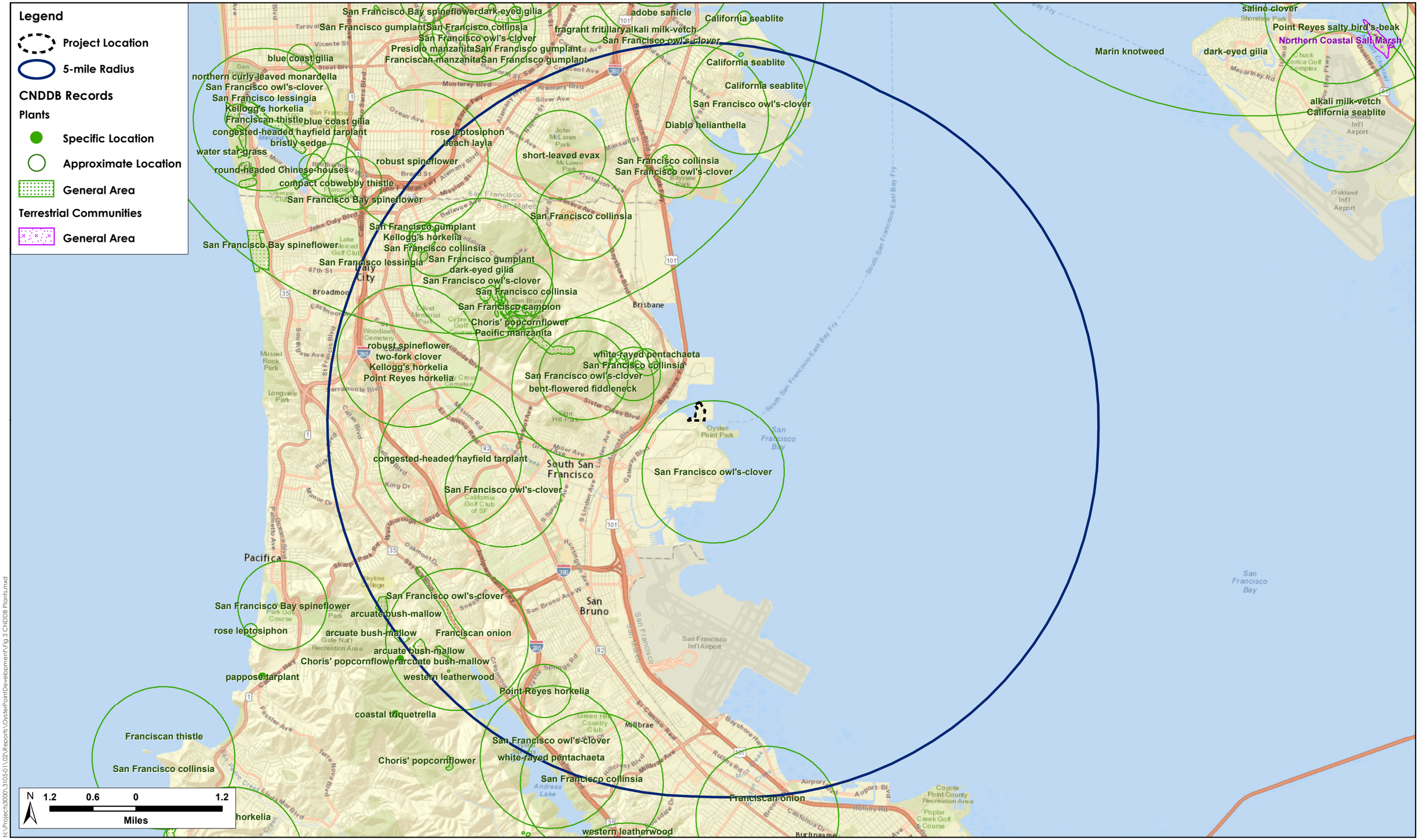
Information concerning threatened, endangered or other special-status species that may occur in the Project area was collected from several sources and reviewed by H. T. Harvey & Associates' biologists. These sources included the CNDDB (2017), the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2017), *The Jepson Manual, Higher Plants of California* (Hickman 1993), CalFlora (2017), the Consortium of California Herbaria (2017), and other information available through the USFWS, CDFW, and technical publications. The specific habitat requirements and the locations of known occurrences of each special-status species were the principal criteria used for inclusion in the list of species potentially occurring on the site.

We conducted a search of CNDDB Rarefind published accounts (CNDDB 2017) for all special-status species within the USGS Topographic quadrangle maps containing the Project site (principally San Francisco South, although the eastern tip of the peninsula lies along the boundary of the Hunter's Point quadrangle), and within the five landside quadrangles surrounding these quadrangles, which include: San Francisco North, Oakland West, Point Bonita, Montara Mountain, and San Mateo. For plants, we reviewed all species on current CNPS Lists 1A, 1B, 2, 3 occurring in any of the seven USGS 7.5-minute quadrangles listed above. A typical nine-quadrangle search was not feasible, as no land-containing quadrangles are located to the west. We also considered the list for San Mateo County as CNPS does not maintain quadrangle-level records on List 4 species.

Reconnaissance-level surveys were conducted on 11 November and 12 December 2009 and 5 May 2010 for special-status plants and for habitats capable of supporting these species. More recent surveys occurred on March 8 and March 16, 2017 to confirm that site conditions had not changed since the 2009-2010 studies in any way that would have increased the probability of occurrence of special-status plants in the updated Project area.

The CNPS identifies 89 special-status plant species as potentially occurring in at least one of the seven quadrangles containing or surrounding the Project site or, for List 4 species, in San Mateo County. Most of these have a low likelihood of occurrence within the Project area due to the following reasons: lack of specific edaphic requirements on site for the species in question, the species is known to be extirpated from the area, the site is outside the highly endemic range of the species in question, the elevation range of the species is outside of the range on site, or degraded habitat conditions on site are not likely to support the species in question. Of the 89 plant species considered, only six were considered to have enough potential for occurrence in the Project vicinity, based on proximity to locally documented populations mapped by the CNDDB and similar habitat requirements to those on site, to be considered in detail. Appendix A lists the plants that were rejected for consideration and the reasons for rejection.

The six special-status plant species considered to have some potential for occurrence on or in the vicinity of the Project site were reviewed in depth and are listed in Table 2. Those species listed



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H. T. HARVEY & ASSOCIATES
Ecological Consultants

Figure 3. CNDDB Plant Records
Oyster Point Development (3105-02)
April 2017

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H. T. HARVEY & ASSOCIATES
Ecological Consultants

Figure 4. CNDDB Animal Records
Oyster Point Development (3105-02)
April 2017

Table 2. Special-status Plant and Animal Species, Their Status, and Potential Occurrence on the Oyster Point Development Project Site.

NAME	*STATUS	HABITAT	POTENTIAL FOR OCCURRENCE ON SITE
Federal or State Endangered or Threatened Species			
White rayed pentachaeta (*Pentachaeta bellidiflora*)	FE, SE, CNPS 1B.1	Valley and foothill grassland. Grassy areas or rocky slopes often with soils derived from serpentine (115-2050 ft)	Absent. The elevation range for species does not include elevations found at the Project site. This species is considered absent from the site due to a lack of appropriate edaphic conditions and suitable habitat.
Bay checkerspot butterfly (*Euphydryas editha bayensis*)	FT	Serpentine grasslands in the San Francisco Bay area where host plant (*Plantago erecta*) is present.	Absent. Host plants absent, outside of current range
Callipe silverspot butterfly (*Speyeria callipe callipe*)	FE	Grassland habitats in the San Francisco Bay Area. Larvae feed exclusively on *Viola pedunculata*.	Absent. Host plants absent
Myrtle's silverspot (*Speyeria zerene myrtleae*)	FE	Coastal dunes, scrublands, and grasslands in Marin County. Eggs are laid only on species of *Viola* found in Marin County.	Absent. Host plants absent, outside of current range
San Bruno elfin butterfly (*Callophrys mossii bayensis*)	FE	Rocky outcroppings in coastal scrublands in the San Francisco Bay Area. Eggs are laid exclusively on stonecrop (*Sedum spathulifolium*).	Absent. Host plants absent
Mission blue butterfly (*Plebejus icarioides missionensis*)	FE	Coastal scrublands and grasslands. Eggs are laid, and larvae feed, exclusively on silver lupine (*Lupinus albifrons*), summer lupine (*L. formosus*), and many-colored lupine (*L. versicolor*).	Absent. Host plants absent
White abalone (*Haliotes sorenseni*)	FE	Rocky marine subtidal (to 200 feet deep) and extreme lower intertidal (below 15 feet deep) habitats. Current population extremely depleted.	Absent. The Project area is too shallow and modified to provide suitable habitat.
Central California Coast Coho salmon (*Oncorhynchus kisutch*)	FE, SE	Spawning in accessible coastal streams, generally in areas with complex in-stream habitat, heavy forest cover, and high quality water. Juveniles rear in these areas for two years before migrating to the ocean.	Absent. This species has been extirpated from South San Francisco Bay, and no suitable habitat is present on the Project site.

Table 2. Special-status Plant and Animal Species, Their Status, and Potential Occurrence on the Oyster Point Development Project Site.

NAME	*STATUS	HABITAT	POTENTIAL FOR OCCURRENCE ON SITE
Central California Coast steelhead (*Oncorhynchus mykiss*)	FT	Spawns in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for one or more years before migrating to the ocean.	Absent. No suitable aquatic habitat is present on the Project site. In immediately adjacent waters, juveniles and adult steelhead could be found as they migrate to and from spawning and rearing streams in South San Francisco Bay. Populations are known from relatively nearby creeks on the peninsula (*i.e.*, San Francisquito Creek).
Central Valley steelhead (*Oncorhynchus mykiss*)	FT	Spawns in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for one or more years before migrating to the ocean.	Absent. No suitable aquatic habitat is present on the Project site. The Project area is outside the migratory corridor for this species (*i.e.*, between the Golden Gate into the Sacramento River). Occasional individuals could potentially wander south of the Golden Gate, but there is a very low probability of occurrence in the Bay near the Project site.
Sacramento River Winter-run Chinook (*Oncorhynchus tshawytscha*)	FE	Central Valley streams with stable water supply, clean gravel, and good quality riparian habitat. Spawning occurs upstream of the Red Bluff Diversion Dam.	Absent. No suitable aquatic habitat is present on the Project site. The Project area is outside the migratory corridor for this species (*i.e.*, between the Golden Gate into the Sacramento River). Occasional individuals could potentially wander south of the Golden Gate, but there is a very low probability of occurrence in the Bay near the Project site.
Central Valley Spring-run Chinook (*Oncorhynchus tshawytscha*)	FT	Central Valley streams with stable water supply, clean gravel, and good quality riparian habitat. Spawning occurs only in tributaries to the Sacramento River.	Absent. No suitable aquatic habitat is present on the Project site. The Project area is outside the migratory corridor for this species (*i.e.*, between the Golden Gate into the Sacramento River). Occasional individuals could potentially wander south of the Golden Gate, but there is a very low probability of occurrence in the Bay near the Project site.
Southern green sturgeon (*Acipenser medirostris*)	FT	Migrates through the San Francisco Bay to spawning grounds in the upper Sacramento River. Juveniles move into the estuary and likely rear in San Francisco Bay.	Absent. No suitable aquatic habitat is present on the Project site. The species forages in the Bay, possibly including estuarine habitats near the Project site. Waters adjacent to the Project site, extending up to the mean higher high water elevation on the site, are within

Table 2. Special-status Plant and Animal Species, Their Status, and Potential Occurrence on the Oyster Point Development Project Site.			
NAME	***STATUS**	**HABITAT**	**POTENTIAL FOR OCCURRENCE ON SITE**
			designated critical habitat for this species.
Longfin smelt (*Spirinchus thaleichthys*)	ST	Native to San Francisco Bay. Adults spawn in upper estuaries in early winter. Larvae are dispersed by downstream flow and distribution is determined by outflow. Adults found outside the Bay in some years.	Absent. No suitable aquatic habitat is present on the Project site, although individuals may occasionally occur in waters adjacent to the site.
Tidewater goby (*Eucyclogobius newberryi*)	FE, CSSC	Brackish water habitats along coast, fairly still but not stagnant water and high oxygen levels.	Absent. The shoreline of the Project area is strongly influenced by tidal activity. No sandy or gravelly substrates available. No recent records exist from San Francisco Bay.
California tiger salamander (*Ambystoma californiense*)	FT, SC	Vernal or temporary pools in annual grasslands or open woodlands.	Absent. No suitable freshwater aquatic habitat. Marginal upland habitat on the Project site is isolated from more suitable upland and breeding habitats, and from the nearest known breeding population.
California red-legged frog (*Rana draytonii*)	FT, CSSC	Permanent and semi-permanent freshwater habitats, such as creeks and cold-water ponds, with emergent and submerged vegetation.	Absent. No suitable aquatic habitat is present on or near the Project site, and there is no habitat connectivity with known populations.
San Francisco garter snake (*Thamnophis sirtalis tetrataenia*)	FE, SE, FP	Inhabits ponds, streams, rivers, and reservoirs, typically with riparian or emergent vegetation. Requires upland areas for aestivation and nesting, usually within 100 yards of permanent water source.	Absent. There is no suitable habitat on the Project site, and there is no connectivity between onsite wetlands and nearby freshwater wetlands. There are no extensive freshwater wetland habitats supporting garter snake populations or populations of their prey-base (red-legged frogs or Pacific chorus frogs [*Pseudacris regilla*]) in the Project vicinity. Further, the Project site is isolated from nearest known population by extensive urbanization.

Table 2. Special-status Plant and Animal Species, Their Status, and Potential Occurrence on the Oyster Point Development Project Site.

NAME	*STATUS	HABITAT	POTENTIAL FOR OCCURRENCE ON SITE
California Ridgway's rail (*Rallus obsoletus obsoletus*)	FE, SE, SP	Restricted to salt marshes and tidal sloughs; usually associated with heavy growth of pickle-weed; feeds on mollusks removed from the mud in sloughs.	Unlikely to occur. The tidal salt marshes in the Project area are extremely limited in extent (too small to provide breeding habitat), are highly disturbed, and lack tall vegetative cover and marsh channels for foraging.
California black rail (*Laterallus jamaicensis*)	ST, SP	Inhabits tidal salt marshes bordering larger bays, or other freshwater and brackish marshes, at low elevations.	Unlikely to occur. The tidal salt marshes in the Project area are extremely limited in extent, and are highly disturbed. The species is not currently known to nest in South San Francisco Bay.
California least tern (*Sternula antillarum browni*)	FE, SE, SP	Nests on sandy, upper ocean beaches, and occasionally uses mud flats; forages on adjacent surf line, estuaries, or the open ocean.	Absent. No suitable aquatic foraging habitat is present on the Project site. This species does not currently breed anywhere on the west side of South San Francisco Bay, and no suitable breeding habitat is present on the Project site. However, there is some potential for small numbers of individuals from East Bay or Suisun Bay breeding areas to forage in Bay waters near the Project site.
Marbled murrelet (*Brachyramphus marmoratus*)	FT	Mature, coastal coniferous forests for nesting; nearby coastal water for foraging; nests in conifer stands greater than 150 years old and may be found up to 35 miles inland; winters on subtidal and pelagic waters often well offshore.	Absent: No suitable nesting or foraging habitat in the Project area.
Western snowy plover (*Charadrius alexandrinus nivosus*)	FT, CSSC	Coastal beaches above the normal high tide line in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent.	Absent. No suitable foraging or nesting habitat is present on the Project site. The limited extent of open sandy substrate near the Project area precludes breeding plovers from occupying the Project vicinity.

Table 2. Special-status Plant and Animal Species, Their Status, and Potential Occurrence on the Oyster Point Development Project Site.

NAME	*STATUS	HABITAT	POTENTIAL FOR OCCURRENCE ON SITE
Tricolored blackbird (*Agelaius tricolor*)	CSSC (breeding), SC	Nests colonially in cattails or other emergent vegetation around freshwater ponds.	Absent as breeder. No suitable breeding habitat is present on the Project site; however tricolored blackbirds may occur as occasional visitors during the non-breeding season.
Salt marsh harvest mouse (*Reithrodontomys raviventris*)	FE, SE, FP	Salt marshes with a dense plant cover or pickleweed or spearscale; adjacent to upland refugia.	Absent. Small mats of pickleweed on and adjacent to salt marsh habitat in the Project area are highly disturbed. This species has not been recorded on the Peninsula north of the Foster City/San Mateo Bridge area in decades.
California Species of Special Concern			
Western pond turtle (*Actinemys marmorata*)	CSSC	Ponds, slow-moving streams and rivers, irrigation ditches, and reservoirs with abundant emergent and/or riparian vegetation.	Absent: No suitable freshwater aquatic habitats present on the Project site.
Black skimmer (*Rynchops niger*)	CSSC (breeding)	For breeding, requires large stretches of bare land sufficiently isolated from land-based predators and other sources of disturbance. Forages in open water.	Absent. No suitable aquatic foraging habitat is present on the Project site. Occasional individuals may forage in the waters immediately adjacent to the Project site, but there is no suitable breeding habitat on-site. This species is only a species of special concern while nesting.
Northern harrier (*Circus cyaneus*)	CSSC (breeding)	Nests and forages in grasslands and salt- or fresh-water marshes. Nests on the ground in shrubby vegetation or tall grasses.	Absent as breeder. Breeding has been confirmed in the Project vicinity, and marginally suitable foraging habitat exists along the shoreline on the Project site. The lack of extensive marshland or tall grasses precludes nesting on the Project site. This species is only a species of special concern while nesting.

Table 2. Special-status Plant and Animal Species, Their Status, and Potential Occurrence on the Oyster Point Development Project Site.			
NAME	***STATUS**	**HABITAT**	**POTENTIAL FOR OCCURRENCE ON SITE**
Burrowing owl (*Athene cunicularia*)	CSSC	Found in open, dry grasslands, deserts, and ruderal areas. Requires suitable small mammal burrows for shelter and nesting.	Absent as breeder. There are no records of burrowing owls in the Project vicinity in the San Mateo County Breeding Bird Atlas (Sequoia Audubon Society 2001), and the Project site, while containing some low-growing herbaceous habitat, did not show any evidence of ground squirrel occupancy during the reconnaissance surveys in 2009, 2010, and 2017. Occasional migrating or dispersing individuals could forage in the Project vicinity, but the species is not expected to breed, occur regularly, or occur in numbers on the site.
Vaux's swift (*Chaetura vauxi*)	CSSC (breeding)	Redwood, Douglas fir, & other coniferous forests. Nests in large hollow trees & snags. Often nests in flocks. Forages over most terrains and habitats.	Absent as breeder. Birds may forage in the Project area during the post-breeding season, but no suitable nesting habitat is available on the Project site. This species is only a species of special concern while nesting.
Loggerhead shrike (*Lanius ludovicianus*)	CSSC (breeding)	Grasslands, open woodlands, and other open areas featuring hunting perches and sharp branches or barbed wire for impaling prey items. Nests in dense patches of shrubbery.	Absent. No suitable nesting or foraging habitat is present on the Project site. Breeding shrikes have been confirmed in the Project vicinity (Sequoia Audubon Society 2001), but records in the area are few, and the Project site is isolated from larger patches of suitable habitat by extensive development.
Yellow warbler (*Dendroica petechia*)	CSSC (breeding)	Nests in dense stands of willow and other riparian habitat.	Absent as breeder. Expected to forage in landscaped or ornamental forest areas of the Project site during migration, but not expected to breed in the Project area, as no suitable breeding habitat is present. This species is only a species of special concern while nesting.

Table 2. Special-status Plant and Animal Species, Their Status, and Potential Occurrence on the Oyster Point Development Project Site.

NAME	*STATUS	HABITAT	POTENTIAL FOR OCCURRENCE ON SITE
San Francisco common yellowthroat (*Geothlypis trichas sinuosa*)	CSSC	Emergent wetland habitats in the San Francisco Bay area. Nests in emergent aquatic vegetation, dense shrubs, or other dense growth.	May occur. Salt marsh vegetation along the shoreline is marginally suitable for breeding, and individuals have been observed near the Project site during the breeding season (eBird 2017). It is possible that one or two pairs may breed on the site, along the shoreline. However, given the marginal nature of the habitat, this species most likely occurs only as a nonbreeding visitor.
Alameda song sparrow (*Melospiza melodia pusillula*)	CSSC	Salt marshes in the South San Francisco Bay area. Nests in emergent aquatic vegetation, dense shrubs, or other dense growth.	May occur. Salt marsh vegetation along the shoreline is marginally suitable for breeding. It is possible that one or two pairs may breed on the site, along the shoreline.
Bryant's savannah sparrow (*Passerculus sandwichensis*)	CSSC	Tidally influenced marshes and adjacent ruderal or grassland areas; also nests in upland grasslands.	Absent as breeder. The salt marsh habitat on and adjacent to the Project site is unsuitable for nesting due to its small size and proximity to development. This species is expected to occur on the Project site only as a nonbreeding visitor.
Pallid bat (*Antrozous pallidus*)	CSSC	Forages over many habitats; roosts in buildings, large oaks or redwoods, rocky outcrops and rocky crevices in mines and caves.	Absent. No recent records in the Project vicinity; Project is outside of current known range.
Townsend's big-eared bat (*Corynorhinus townsendii*	CSSC	Roosts primarily in caves, mines, attics, abandoned buildings and large trees with bowls such as found in burned old-growth redwoods. Forages over many habitats.	Absent: No suitable roosting habitat present.
San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)	CSSC	Builds nests in a variety of habitats including riparian areas, oak woodlands, and scrub.	Absent. Limited suitable habitat occurs on the Project site, but the area is isolated from nearest existing populations by extensive development, and no evidence of occupancy by woodrats was found anywhere on the Project site during the reconnaissance survey.

Table 2. Special-status Plant and Animal Species, Their Status, and Potential Occurrence on the Oyster Point Development Project Site.

NAME	*STATUS	HABITAT	POTENTIAL FOR OCCURRENCE ON SITE
Salt marsh wandering shrew (*Sorex vagrans halicoetes*)	CSSC	Salt marshes with a dense plant cover or pickleweed or fat hen; adjacent to upland refugia.	Absent. Small mats of pickleweed adjacent to salt marsh habitat in the Project area are highly disturbed. No CNDDB records in the Project vicinity.
State Protected Species, CEQA Rare Species, and CNPS Species			
Coastal marsh milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*)	CNPS 1B.2	Coastal dunes, coastal salt marshes. Mesic sites in dunes or along streams or coastal salt marshes (0-98 ft)	Absent. No occurrences are known from bayside areas in San Mateo County, and habitat on the site is marginal at best for this species.
Pale yellow hayfield tarplant (*Hemizonia congesta ssp. congesta*)	CNPS 1B.2	Coastal grassland, coastal scrub, valley and foothill woodland. Grassy valleys and hills, fallow fields (<1000 ft)	Absent. No suitable habitat is present on the Project site, and occurrences in San Mateo County are near the San Bruno Mountain summit, too far to serve as a source population for this area.
Saline clover (*Trifolium depauperatum* var. *hydrophilum*)	CNPS 1B.2	Salt marshes, alkaline soils. Valley and foothill grassland and vernal pools (0-984 ft)	Absent. According to CNDDB (2017), this species was last observed in the Project vicinity in 1886. It is likely that this species is locally extinct.
San Francisco owl's-clover (*Triphysaria floribunda*)	CNPS 1B.2	Coastal prairie, coastal scrub, valley and foothill grassland. Serpentinite or sandy soils (33-525 ft)	Absent. Last observed near Project site in 1965. It is not expected to occur on-site due to the poor quality of fill soils and lack of suitable edaphic conditions on the site.
Large flowered leptosiphon (*Leptosiphon grandiflorus*)	CNPS 4.2	Coastal bluff scrub, closed cone coniferous forest, coastal dunes, coastal prairie, usually sandy (16-3674 ft)	Absent. This species occurs in a wide variety of coastal habitats, but there are no sufficiently undisturbed habitats on-site that approximate areas of coastal bluff scrub, coastal dunes, or mesic coastal prairies.
American peregrine falcon (*Falco peregrinus anatum*)	SP	Nests on cliffs, and occasionally on buildings or bridges; forages for birds over many habitats.	Low probability of occurrence. Occasional dispersing or migrating individuals may move through and forage in portions of the Project area, but no suitable nesting habitat occurs on site.
White-tailed kite (*Elanus leucurus*)	SP	Open habitats such as grassy plains, agricultural fields, open oak woodlands, and marshes. Nests in tall shrubs and trees.	Low potential for occurrence. The Project area provides marginal foraging habitat, but there are no confirmed breeding records in the Project area (Sequoia Audubon Society 2001). Most likely to occur as an occasional

Table 2. Special-status Plant and Animal Species, Their Status, and Potential Occurrence on the Oyster Point Development Project Site.			
NAME	***STATUS**	**HABITAT**	**POTENTIAL FOR OCCURRENCE ON SITE**
			nonbreeding visitor, if at all.

SPECIAL STATUS SPECIES CODE DESIGNATIONS

FE = Federally listed Endangered
FT = Federally listed Threatened
SC = State Candidate for listing as Endangered or Threatened
SE = State listed Endangered
ST = State listed Threatened
CSSC = California Species of Special Concern
SP = State Protected Species
CNPS 1B = Plants considered by CNPS to be rare, threatened, or endangered in California, and elsewhere

as Threatened or Endangered by the state or federal Endangered Species Acts, or considered rare by the CNPS, are discussed in detail below. Of the six species considered in this assessment, none were ultimately determined to have potential to occur on-site after careful consideration of the site's habitats.

Federal or State Endangered or Threatened Species

White-rayed pentachaeta (*Pentachaeta bellidiflora*). Federal Listing Status: Endangered; State Listing Status: Endangered; CNPS List: 1B.1. This annual herb in the composite (Asteraceae) family occurs in cismontane woodlands and valley and foothill grassland habitats at elevations of approximately 115 - 2050 ft (CNPS 2017). When occurring in grassy habitats, this species is often found on serpentine-derived substrates, scoring a 2.4 (weak indicator) in affinity to serpentine soils (CalFlora 2017). The blooming period extends from March to May. White-rayed pentachaeta was known from 12 USGS 7.5-minute quadrangles in Marin, Santa Cruz, and San Mateo counties, but is now presumed extirpated from all historical locations except those in the Woodside quadrangle in San Mateo County. All of the previously known occurrences in other quadrangles were lost to development, making this a major threat for the species. The species is now known from fewer than 20 occurrences, as the Monterey County occurrence once attributed to this species is actually *P. exilis* var. *aeolica* (CNPS 2017).

The CNDDB lists two occurrences within either the Project quadrangle or eight surrounding quadrangles. One occurrence off of Skyline Boulevard, above San Andreas Lake in San Mateo County indicates that available habitat has been lost due to the presence of a road. Both occurrences are documented as being extirpated or possibly extirpated. CalFlora (2017) has records of five reported occurrences in San Mateo County. Recent occurrences are in the serpentinite soils of Edgewood Park. It is unlikely that the fill soils in the Project area would support serpentinite species or are sufficiently rocky. Additionally, this species is only known to occur at elevations outside the elevation range within the Project area. Based on the distance from the nearest documented populations and the quality of on-site soils, this species is presumed absent from the Project area.

CNPS-listed Species

Coastal marsh milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*). Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.2. Coastal marsh milk-vetch is a perennial herb in the legume family (Fabaceae) that blooms from April to October. It occurs in mesic coastal dunes, coastal scrub, and marshes and swamps from 0 to 98 ft. elevation. When occurring in marshes, the variety is specifically associated with coastal salt influence and/or and streamsides. Coastal marsh milk-vetch is a California endemic occurring in 15 USGS quadrangles in Humboldt, Mendocino, Marin, and San Mateo counties (CNPS 2017).

The CNDDB has two documented occurrences within San Mateo County. Both of these populations are presumed extant. CalFlora (2017) documents or reports four occurrences in San Mateo County. One occurrence in 2004 cites the location of a population of around 200 individuals in coastal bluff, estuarine flat, and constructed levee locations and in other occurrences it was found in marsh and dune habitats. However, all known occurrences are located on the Pacific coastline, not within San Francisco Bay, and very little (and marginal) salt

marsh habitat is present on the Project site. Therefore, it is not expected that any extant populations could serve as seed sources for this species within the Project area, and the species is presumed absent.

Pale yellow hayfield tarplant (*Hemizonia congesta ssp. congesta*). Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.2. Pale yellow hayfield tarplant is an annual herb of the sunflower family (Asteraceae) that is native and endemic to the state of California. It is sometimes found on serpentine soil and is typically found in coastal grassland and sometimes roadsides. The blooming period for the species extends from April to November and occurs at elevations between 0-1000 ft. This species is known to occur in Mendocino, Marin, San Francisco, San Mateo, and Sonoma counties (CNPS 2017).

The CNDDB has only two documented occurrences of pale yellow hayfield tarplant since 1909 within the Project quadrangles and surrounding quadrangles. These are thought to be extirpated or extant due to alteration from urban development. Due to the documented ability of the species to exist in disturbed habitats, and the presence of grassland habitat on site, marginally suitable grassland habitat exists for this species on site. However, as the only documented occurrences are found near the summit of San Bruno Mountain, too far to serve as source populations for the species on site, hayfield tarplant is considered absent from the Project Area.

Saline clover (*Trifolium depauperatum* var. *hydrophilum*). Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.2. Saline clover is an annual herb in the legume family (Fabaceae) that occurs in mesic, alkaline, or saline sites in valley and foothill grassland habitat, in vernal pool habitat, or in marshes and swamps at elevations from 0 to 984 ft. Hickman (1993) specifically indicates that the species occurs in coastal salt marshes as well as inland marshes. The blooming period extends from April through June, although in salt marshes the species may flower slightly later than seen in alkaline grassland areas. The range of this species has been reduced to remaining alkaline grasslands in Alameda, Colusa, San Mateo, Monterey, Napa, San Luis Obispo, San Benito, Santa Clara, Solano, Sonoma, and Santa Cruz counties. The species is documented from 22 USGS 7.5-minute quadrangles. Many occurrences of the species have likely been extirpated; the species is threatened by development, trampling, road construction, and vehicles (CNPS 2017).

The CNDDB lists two records of saline clover occurring in San Mateo County in marshes, swamps, valley and foothill grassland or vernal pools. However, the Jepson Interchange (2017) suggests the possibility that the species is locally extinct. Due to the rarity of this species, the lack of a nearby source population, and the long history of disturbance of the Project site, it is presumed absent.

San Francisco owl's-clover (*Triphysaria floribunda*). Federal Listing Status: None; State Listing Status: None; CNPS List: 1B.2. San Francisco owl's-clover is an annual herb in the figwort family (Scrophulariaceae) that is documented from nine USGS 7.5-minute quadrangles in the counties of Marin, San Francisco, and San Mateo. It is usually found on serpentinite soils in coastal prairie, coastal scrub, and valley and foothill grassland habitats at elevations from 33 to 525 ft. It blooms from April to June and is threatened by grazing, trampling, and competition (CNPS 2017).

The CNDDB lists eight documented occurrences of San Francisco owl's clover within the Project site quadrangle or the eight surrounding quadrangles. It was last seen in the Project vicinity in the 1960s. It is unlikely that the fill soils onsite would be suitable habitat for the species since it is typically associated with serpentine soils. Due to the lack of any recent records in the Project vicinity, the long history of disturbance of the Project site, and the marginal nature of habitat on the site, this species is presumed absent.

Large-flowered leptosiphon (*Leptosiphon grandiflorus;* formerly *Linanthus grandiflorus*). Federal Listing Status: None; State Listing Status: None; CNPS List: 4.2. Large-flowered leptosiphon is an annual herb in the phlox family (Polemoniaceae) found on sandy soils in coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, and valley and foothill grassland habitats. It occurs within Alameda, Kern, Madera, Merced, Monterey, Marin, Santa Clara, Santa Cruz, San Francisco, San Luis Obispo, San Mateo, and Sonoma counties. It is considered to be extirpated from Santa Barbara County. The blooming period for this species is April through August at elevations from 16 to 3674 ft. Many historical occurrences have been extirpated by development (CNPS 2017).

There is limited documentation for this species in San Mateo County. Calflora (2017) has one documented occurrence in San Mateo County in 1961. The CNPS suggests that the species prefers sandy soils. However, it is known to inhabit a wide variety of habitats over a broad range in California. There are no sufficiently undisturbed habitats on-site, and areas approximating the habitat conditions of known occurrence locations in coastal bluff scrub or dunes or mesic coastal prairies are not present. Therefore, this species is presumed absent.

Special-status Animal Species

Reconnaissance-level field surveys of the Project site were conducted on 11 November 2009, 17 September 2010, and March 8, 2017 to assess the site's potential for supporting special-status wildlife species. Additional information regarding the occurrence of special-status wildlife species in the Project area was obtained from previous H. T. Harvey & Associates projects performed in the vicinity. The legal status and likelihood of occurrence of special-status wildlife species known to occur, or potentially occurring, in the general Project vicinity are presented in Table 2. Figure 4 depicts the CNDDB-mapped locations of special-status animals in the Project vicinity.

Several of the special-status species listed in Table 2 are not expected to occur in the Project area because the site lacks suitable habitat, is outside the distributions of the species, and/or is isolated from the nearest known extant populations by development or otherwise unsuitable habitat. For instance, several federally endangered butterfly species are known to occur (or to have occurred historically) in the vicinity, primarily on Mount San Bruno to the northwest of the site; these include the Bay checkerspot butterfly (*Euphydryas editha bayensis*), callippe silverspot (*Speyeria callipe callippe*), mission blue butterfly (*Plebejus icarioides missionensis*), Myrtle's silverspot (*Speyeria zerene myrtleae*), and San Bruno elfin (*Callophrys mossii bayensis*). However the site does not support any of the host plants required by these species, and is outside of their currently known distributions. Other species not expected to occur in the Project area for the reasons outlined above include the white abalone (*Haliotes sorenseni*), tidewater goby

(*Eucyclogobius newberryi*), coho salmon (*Oncorhynchus kisutch*), California tiger salamander (*Ambystoma californiense*), western pond turtle (*Actinemys marmorata*), marbled murrelet (*Brachyramphus marmoratus*), Townsend's big-eared bat (*Corynorhinus townsendii*), pallid bat (*Antrozous pallidus*), salt marsh harvest mouse, salt marsh wandering shrew, and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*).

Several other special-status species are expected to occur in the Project vicinity only as uncommon to rare visitors, migrants, or transients, or may forage on the site while breeding in adjacent areas. However, these species are not expected to breed in the Project area in any numbers, or to be affected by Project implementation. Several Central Valley fish species, including the Central Valley steelhead (*Oncorhynchus mykiss*), and Sacramento River Winter-run and Central Valley Spring-run Chinook salmon (*Oncorhynchus tshawytscha*) occur regularly in the Delta and in the San Joaquin and Sacramento rivers, and occasional individuals could conceivably drift into the Project area during migration between those areas and the Golden Gate. However, we do not expect these species to occur with any regularity near the Project area, and they are not expected to be affected by Project activities. Other species expected to occur only as occasional visitors include the American peregrine falcon (*Falco peregrinus anatum*), black skimmer (*Rynchops niger*), northern harrier (*Circus cyaneus*), Vaux's swift (*Chaetura vauxi*), yellow warbler (*Dendroica petechia*), and tricolored blackbird (*Agelaius tricolor*). These species may occur as migrants or occasional foragers, but we do not expect them to breed on or immediately adjacent to the site

A number of other special-status wildlife species are known or expected to occur regularly on or near the Project site and may breed there, or are species for which resource agencies have expressed particular concern; expanded discussions of these species follow.

Federal or State Threatened or Endangered Species

Central California Coast steelhead. Federal Listing Status: Threatened; State Listing Status: Species of Special Concern. The Central California Coast Distinct Population Segment (DPS) of steelhead was listed as federally threatened in 1998 (NMFS 1998), and critical habitat was designated in 2005 (NMFS 2005). The Project site is within critical habitat boundaries for the Central California Coast DPS. Steelhead, the anadromous form of rainbow trout, occur in most perennial, free-flowing coastal streams in central and northern California where the water temperature does not exceed 70°F. The Central California Coast steelhead ranges from the Russian River south to Aptos Creek and includes the populations within San Francisco Bay (Moyle 2002). In central California, adult steelhead migrate upstream to spawn from early winter to mid-spring, after winter storms provide sufficient flows to facilitate migration to spawning grounds. Spawning occurs between December and June, typically in gravelly substrates free of fine sediments, roots, and emergent vegetation. Preferred streams typically support a dense canopy cover that provides shade, woody debris, and organic matter. Most young steelhead remain in freshwater for 1 to 2 years in cool, clear streams with brisk currents, more riffles than pools, and abundant riparian cover, before they become smolt and enter the ocean (Moyle 2002). Streambed degradation, alteration, and blockages have significantly reduced steelhead habitat, and this reduction, as well as reduced genetic diversity and climate change, has seriously impacted Central Coastal California steelhead populations (Busby et al. 1996).

The closest potential steelhead spawning streams in South San Francisco Bay are San Mateo Creek (approximately 7 mi south of the Project area), Alameda Creek (approximately 14 miles southeast of the Project area), and San Francisquito Creek (approximately 20 miles south of the Project area). Other South Bay watersheds farther south also support populations of steelhead. Because the Project area is between their spawning and rearing streams and the Pacific Ocean, fish from any of these streams could be found in the Bay adjacent to the Project site during adult migrations from the Pacific Ocean to spawning sites or during juvenile migrations from their natal streams to the Pacific Ocean. However, aquatic habitat is absent from the Project site itself, and therefore steelhead do not occur on the Project site.

Southern green sturgeon (*Acipenser medirostris*). Federal Listing Status: Threatened; State Listing Status: None. The southern DPS of green sturgeon was listed as threatened by the NMFS on April 7, 2006 (NMFS 2006), and critical habitat was designated in October 2009 (NMFS 2009). Critical habitat for the green sturgeon includes all of San Francisco Bay up to the elevation of mean higher high water. The green sturgeon is a long-lived, anadromous, native fish that occurs in low numbers in the San Francisco Estuary and Sacramento River. Adults spawn in freshwater rivers from British Columbia south to the Sacramento River. Larvae develop within these freshwater systems, migrate downstream, and remain in the estuaries for between 1 and 4 years before migrating to the ocean. Mature adults move into estuaries in the spring and spawning adults move up the rivers of their origins in late spring/early summer. Post spawning adults return to the estuary before migrating back to the ocean in late fall. Sub-adult fish also are thought to enter estuaries during summer and fall months.

The Project area does not support the necessary freshwater spawning habitat for adult sturgeon, but individuals could occasionally wander into the portion of San Francisco Bay adjacent to the Project site, where they may forage, and juvenile fish and sub-adults may rear in the adjacent waters of San Francisco Bay in small numbers. However, aquatic habitat is absent from the Project site itself, and therefore green sturgeon do not occur on the Project site.

Longfin smelt (*Spirinchus thaleichthys*). Federal Listing Status: Threatened; State Listing Status: None. Longfin smelt were listed under the California Endangered Species Act as a threatened species in 2009. This species is endemic to the west coast of North America with small populations likely still present in the Klamath River and Russian River estuaries (Moyle 2002). However, the bulk of the longfin smelt population appears to be in San Francisco Bay. Adults spawn primarily in the Sacramento-San Joaquin Estuary almost as far upstream as the City of Sacramento on the Sacramento River and to Turner Cut on the San Joaquin River. Adults spawn in these upstream freshwater locations in early winter. The larval smelt are distributed downstream by natural river flow. As they mature, swimming ability improves and their distribution expands.

Although the bulk of this species' population apparently spawns in the Delta region, the species also likely spawns in freshwater waters elsewhere in the Bay Area, including streams in the South Bay, and the species can be found throughout much of San Francisco Bay during the winter. No suitable spawning habitat is present on or very near the Project site, but small numbers of this species could be found in Bay waters adjacent to the Project area as individuals

disperse and feed in the Bay. However, aquatic habitat is absent from the Project site itself, and therefore longfin smelt do not occur on the Project site.

California red-legged frog (*Rana draytonii*). Federal Listing Status: Threatened; State Listing Status: Species of Special Concern. The California red-legged frog is generally restricted to riparian and lacustrine habitats in California and northern Baja California. Red-legged frogs prefer deep, calm pools (usually more than 2 ft deep) in creeks, rivers, or lakes below 5000 ft in elevation (Jennings and Hayes 1994). Breeding habitat requirements include freshwater emergent or dense riparian vegetation, such as willows adjacent to shorelines. Red-legged frogs can survive in seasonal bodies of water that are dry for short periods if a permanent water body or dense vegetation stands are nearby.

Adult red-legged frogs are normally active at night and breed in still water during the late winter or early spring after waters recede. Females attach eggs in a single cluster to vegetation just under the surface of the water. The eggs hatch in approximately one week and larvae feed on plant and animal material. It takes a minimum of approximately 4 months for the larvae to metamorphose into juvenile frogs. On rare occasions larvae over winter. Red-legged frogs can move considerable distances overland. Dispersal often occurs within creek drainages, but movements of more than a mile over upland habitats have been reported (Bulger et al. 2003). Red-legged frogs are often found in summer months in habitat that would not be suitable for breeding; these individuals presumably move seasonally between summer foraging habitat and winter breeding habitat.

The USFWS listed the California red-legged frog as threatened in 1996, due to continued habitat degradation throughout the species' range and population declines. Critical habitat was most recently designated for the California red-legged frog in 2010 (USFWS 2010), but this critical habitat designation does not include the Project area.

The population of red-legged frogs closest to the Project site occurs in a wetland at the edge of tidal influence, to the west of Highway 101 next to the San Francisco Airport, approximately 3.5 mi south of the Project area (CNDDB 2010). This and other more distant populations in the Project vicinity are separated from the Project area by extensive development and substantial barriers including Highway 101. The Project site does not support fresh pools, streams, or ponds, and the existing tidal marshes in and near the Project area are saline. Therefore we do not expect this species to occur on the Project site.

San Francisco garter snake (*Thamnophis sirtalis tetrataenia*). Federal Listing Status: Endangered; State Listing Status: Endangered and Fully Protected. The San Francisco garter snake was listed as endangered by the USFWS in 1967 (USFWS 1976). Critical habitat has not been designated for this species. The historic distribution of the San Francisco garter snake extended from the southern San Francisco County line to Año Nuevo in southern San Mateo County. While the current distribution is likely similar, populations have declined within the range, and have become increasingly fragmented due to habitat alteration in the region (Brode et al. 1994). The San Francisco garter snake frequents wetlands and grasslands with dense vegetation cover near ponds or streams, though they have been known to make use of less suitable habitat (USFWS 2007). Additionally, San Francisco garter snakes require some upland

habitat with burrows or interstitial spaces for basking and aestivation, and suitable habitat must support a prey base of species such as red-legged frogs, pacific chorus frogs (*Pseudacris regilla*), and western toads (*Bufo boreas*). The San Francisco garter snake is a live-bearing reptile, and young are born in late summer (Brode et al. 1994). The San Francisco garter snake continues to be threatened by increasing habitat loss and degradation, as well as illegal collecting by reptile fanciers (USFWS 2007).

The nearest known population of San Francisco garter snakes occurs in a wetland to the west of Highway 101 next to the San Francisco Airport, approximately 3.5 mi south of the Project area (CNDDB 2010). This and other more distant populations in the Project vicinity are separated from the Project area by extensive development and substantial barriers including Highway 101. The Project site does not support freshwater marshes, and the salt marshes within the Project boundaries do not support a sufficient amphibian prey base for garter snakes. Therefore we do not expect the species to occur on the Project site.

California black rail (*Laterallus jamaicensis coturniculus*). Federal Listing Status: None; State Listing Status: Threatened and Fully Protected. Historically, black rails ranged along the Pacific coast from Tomales Bay in the north to northern Baja California in the south, but comprehensive and ongoing habitat loss has reduced their distribution and abundance considerably, leading to their state status as a fully protected and threatened bird (Evens et al. 1991, Eddleman and Evens 1994). The current range of the California black rail is restricted primarily to the tidal marshes of the northern San Francisco Bay, with small localized populations also occurring in the southern portion of the bay, in Marin County, in the foothills of the western Sierra Nevada, and in the Colorado River area (Spautz et al. 2005). It is estimated that up to 90% of habitat in California, and at least 85% of San Francisco salt-marsh habitat, has been degraded or destroyed, mostly due to agriculture and development. The vast majority of California black rails frequent tidal marshes with quantities of low, dense, emergent vegetation, while the few remaining inland rail populations are associated with shallow, stable freshwater marshes dominated by fine-stemmed vegetation. Prime black rail habitat features large, contiguous stretches of stable tidal marsh dominated by pickleweed (*Salicornia* spp), *Scirpus* spp, or cattails, with low levels of urban development (Spautz et al. 2005). Rails begin nesting in late February, constructing well-hidden cup nests low to the ground near the high flood line. They nest through July, after which juveniles disperse erratically; adults remain on their breeding grounds year-round (Eddleman et al. 1994).

The tidal marsh habitat on the Project site consists of thin strips along the edges of the site, dominated by pickleweed. These marshes are limited in extent, provide open to moderate cover rather than dense cover, offer a narrow tidal zone, and are highly disturbed by adjacent human activities. This habitat is of marginal quality, at best, for nonbreeding black rails, and not sufficiently extensive for use by breeding rails. Even the slightly more extensive marsh west of the Project area is unsuitable for the black rail for the same reasons. Therefore, we do not expect black rails to occur on the Project site.

California Ridgway's rail (*Rallus obsoletus obsoletus*). Federal Listing Status: Endangered; State Listing Status: Endangered and Fully Protected. The California Ridgway's rail (formerly known as the California clapper rail) was listed as endangered by the USFWS in 1970 (USFWS

1970) and is designated as both endangered and fully protected in the state of California (Baron and Takekawa 1994). Critical Habitat has not been designated for this species. The California Ridgway's rail is a year-round endemic to the tidal marshes fringing the San Francisco Bay (Schwartzbach et al. 2006), although historically populations also occurred in salt marshes in the Tomales, Monterey, and Morro Bays (Harvey 1990, Eddleman and Conway 1998). Rail populations were decimated by extensive habitat loss and hunting in the 19th and early 20th centuries (Baron and Takekawa 1994). Continued degradation and loss of tidal marsh habitat, pollution, and the ubiquitous presence of non-native predators such as red fox (*Vulpes vulpes*) and feral cats (*Felis catus*) continue to limit rail populations throughout their remaining distribution (Foin et al. 1997, Schwartzbach et al. 2006). California Ridgway's rails are obligate salt-marsh inhabitants, particularly where pickleweed (*Salicornia* spp.) and/or cordgrass (*Spartina* spp.) are the dominant vegetation. They construct cup nests in the upper marshes near tidal sloughs beginning in late March; the breeding season runs through August. They forage in the mud of tidal sloughs, retreating to the upper marsh during high tides. Prime habitat for California Ridgway's rails consists of broad patches of pickleweed-dominated salt marsh free from introduced predators, with abundant slough channels, a fringe of tall salt marsh vegetation above the high-tide line, and abundant invertebrate populations (Eddleman and Conway 1998).

California Ridgway's rails are documented as occurring throughout portions of San Francisco Bay in relatively extensive channeled tidal marshes dominated by saline and brackish marsh plants. The nearest recently documented breeding population consist of small groups of birds nesting at the mouth of Colma Creek, approximately 1.5 mi south of the Project site (CNDDB 2017). The tidal marsh habitat on and near the Project site consists of thin strips along the edges of the site, dominated in some areas by pickleweed and in others by tall cattails and rushes. These marshes are limited in extent, provide open to moderate cover, offer no well developed channels for foraging, and are highly disturbed by adjacent human activities. They therefore do not provide suitable breeding habitat for Ridgway's rails, and it is unlikely that even nonbreeding individuals would occur on or near the Project site.

California least tern (*Sterna antillarum browni*). Federal Listing Status: Endangered; State Listing Status: Endangered and Protected. The California least tern was listed as endangered by the USFWS in 1970 (USFWS 1970), and is designated as both endangered and fully protected in the state of California. No critical habitat has been designated for this species. California least terns historically nested widely along the Pacific Coast from the San Francisco Bay area to Baja California, but pervasive habitat loss, along with increasing predation pressures and disturbance due to recreational activities, has radically constrained the range and abundance of this species. Habitat degradation is ongoing, and nest predation by feral cats and other human-associated species such as raccoons and crows now poses a grave threat (Atwood et al. 1994, Akçakaya et al. 2003). Currently, California least terns breed primarily in one colony in the San Francisco Bay area (at Alameda Point), and breed sparsely at a few coastal sites from San Luis Obispo County to San Diego County (Atwood et al. 1994). California least terns inhabit broad, sparsely vegetated sandy beaches or mudflats near the coast, where they can construct shallow scrape nests in sand or gravel (Thompson et al. 1997). Ideal nesting habitat for California least terns is typified by open, undisturbed beaches with little to no vegetation or debris and an absence of nest predators. Least terns exhibit high site fidelity despite the typically ephemeral nature of their preferred breeding habitat (Thompson et al. 1997, Akçakaya et al. 2003). Nesting colonies averaging 30-50 pairs begin to establish themselves in late April, and breeding continues through early

September, after which the birds migrate to wintering grounds in southern Mexico (Thompson et al. 1997).

California least terns occur in the San Francisco Bay, where they breed primarily at Alameda Point, approximately 9 mi northeast of the Project site. A strip of sandy beach habitat is present southeast of the Project site, on Oyster Point, but it is very small, highly disturbed, and frequented by predators such as feral cats and American crows. Therefore, suitable nesting habitat for California least terns is absent from the Project vicinity. It is possible that birds from the Alameda colony, or possibly from smaller San Francisco Bay colonies, could forage in the Bay adjacent to the Project site, though such individuals are expected to occur irregularly and/or in small numbers. No aquatic foraging habitat is present on the Project site itself, and therefore California least terns are absent from the Project site.

Western snowy plover (*Charadrius alexandrinus nivosus*). Federal Listing Status: Threatened; State Listing Status: Species of Special Concern. Coastal populations of western snowy plover were listed as threatened by the USFWS in 1993 (USFWS 1993), and critical habitat was designated in 1999 (USFWS 1999). The western snowy plover is a small shorebird distributed along the pacific and gulf coasts of the United States, and patchily in the interior west during the winter months (Page et al. 1995). Snowy Plover breeding habitat on the pacific coast is typified by sandy beaches, gravel spits, salt pans, and other open, sparsely vegetated habitats near the ocean (Colwell et al. 2005). Breeding begins in California around mid-February, and nesting birds lay one to three clutches of 2 to 6 eggs in shallow scrapes near patches of cover such as driftwood, kelp, or low vegetation. The breeding season runs through September, and in central California plover populations persist throughout the year, with non-breeding birds foraging on invertebrates on shorelines, tidal flats, and salt ponds (Page et al. 1995). Optimal snowy plover nesting habitat is comprised of sandy substrates with sparsely distributed camouflaging debris or shrubs, supporting only low numbers of native predators and no introduced predators, and protected from human activities including off-road vehicles. The majority of coastal snowy plover habitat is threatened by habitat loss and degradation, disturbance due to human activities, and an influx of introduced nest predators (Ruhlen et al. 2003, Neuman et al. 2004).

Although snowy plovers nest primarily on sandy beaches along the coast, breeders inside San Francisco Bay nest primarily in extensive salt pannes. Salt panne habitat is absent from the Project site, and the small patch of sandy beach on Oyster Point southeast of the Project site is too small, highly disturbed, and frequented by predators such as feral cats and American crows to provide suitable breeding habitat, or even foraging habitat for this species. Therefore, the snowy plover is not expected to occur on or near the Project site.

Salt marsh harvest mouse (*Reithrodontomys raviventris*). Federal Listing Status: Endangered; State Listing Status: Endangered. The salt marsh harvest mouse was listed as endangered by the USFWS in 1970 (USFWS 1970) and by the CDFW in 1971. Critical habitat has not been designated for this species. The salt marsh harvest mouse is restricted to the San Francisco bay area and its tributaries. It is a salt marsh obligate and requires both dense patches of pickleweed (*Salicornia virginica)* and high ground refuge locations during high tide (Shellhammer 1982, Shellhammer et al. 1982). Salt marsh harvest mice subsist mainly on leaves,

seeds, plant stems and green grasses (Bias 1994, Shellhammer 1982). The listing of the salt marsh harvest mouse was a direct result of habitat loss, which has declined by 80% (Shellhammer 1982) from its original size of 183 mi^2. Breeding of the salt marsh harvest mouse takes place primarily between August and November (Bias 1994, Bias and Morrison 2006). Average home range is approximately 0.53 ac for both sexes. Continued threats to the salt marsh harvest mouse are further habitat fragmentation and degradation (*e.g.*, pollution, invasion by non-native predators).

Salt marsh harvest mice have not been recorded on the San Francisco peninsula north of Foster City in decades. The pickleweed marshes on the Project site are poorly developed and highly disturbed, offering marginal habitat at best for the species. The nearest extant populations are distant and separated from the Project area by substantial habitat alteration. Therefore, we do not expect salt marsh harvest mice to occur on the Project site.

California Species of Special Concern or State Fully Protected Species

White-tailed kite (*Elanus leucurus*). Federal Listing Status: None; State Listing Status: Fully Protected. The white-tailed kite ranges throughout the western states and Florida where suitable habitat occurs. In California, white-tailed kites can be found in the Central Valley and along the coast, in grasslands, agricultural fields, cismontane woodlands, and other open habitats (Polite et al. 1990, Dunk 1995, Erichsen et al. 1996). Although the species rallied impressively after marked reductions during the early 20th century, populations may be exhibiting new declines as a result of recent increases in habitat conversion and disturbance (Erichsen et al. 1996). White-tailed kites are year-round residents of the state, establishing breeding territories that encompass open areas with healthy prey populations, and snags, shrubs, trees, or other nesting substrates (Dunk 1995). Non-breeding birds typically remain in the same area over the winter, although some movements do occur (Polite et al. 1990). The presence of white-tailed kites is closely tied to the presence of prey species, particularly voles, and prey base may be the most important factor in determining habitat quality for white-tailed kites (Dunk and Cooper 1994, Skonieczny and Dunk 1997).

White-tailed kites have been observed on Oyster Point during the breeding season (CNDDB 2010, eBird 2017). The annual grassland and even some landscaped habitats on the Project site offer at least marginally suitable foraging habitat, but given the absence of more extensive, high-quality open foraging habitat, if the species occurs on the Project site, it is likely to occur only as an occasional nonbreeding visitor.

Burrowing owl (*Athene cunicularia*). Federal Listing Status: None; State Listing Status: Species of Special Concern (breeding). Western burrowing owls can be found in grassland habitats throughout western and Midwestern North America (Haug et al. 1993). In California burrowing owls are distributed throughout the state, with populations in the northeast; in the Central Valley, interior San Francisco Bay Area, and Salinas Valley; on the Carrizo Plain and in the Imperial Valley; and on several of the Channel Islands. Habitat loss has reduced the abundance of this species within its range and resulted in local extirpations, particularly along the central and southern coasts (Gervais et al. 2008). California hosts both migratory and sedentary populations of burrowing owls (Rosenberg et al. 2007). These owls favor flat, open grassland or gentle slopes

and sparse shrubland ecosystems for breeding, through they will also readily colonize agricultural fields and other developed areas (Haug et al. 1993, Conway et al. 2006). Mammal burrows, or other structures that mimic burrows, provide secure nesting locations and non-breeding refuges and are a fundamental ecological requirement of burrowing owls (Gervais et al. 2008); in California, owls are most often found in close association with California ground squirrel burrows (Rosenberg et al. 2007). Ideal habitat for burrowing owls is comprised of annual and perennial grasslands with low vegetation height, sparse or nonexistent tree or shrub cover, and an abundance of mammal burrows (Coulombe 1971, Haug and Oliphant 1990, Plumpton and Lutz 199). The nesting season as recognized by the CDFW (2012) runs from February 1 through August 31. After nesting is completed, adult owls may remain in their nesting burrows or in nearby burrows, or may migrate; young birds disperse across the landscape, from 0.12 mi to 33 mi from their natal burrows (Rosier et al. 2006).

Burrowing owls occur at scattered locations throughout the South San Francisco Bay Area where low grasslands and ruderal habitats support ground squirrel colonies. Although the Project site supports small patches of annual grassland and ruderal habitat, such habitat is very limited in extent, and no ground squirrel burrows were in evidence during the reconnaissance survey in November 2009. Due to the absence of extensive grasslands, it is unlikely that even nonbreeding burrowing owls occur on the Project site.

Loggerhead shrike (*Lanius ludovicianus*). Federal Listing Status: None; State Listing Status: Species of Special Concern (nesting). The loggerhead shrike is distributed throughout much of California, except in higher-elevation and heavily forested areas including the Coast Ranges, the Sierra Nevada, the southern Cascades, the Klamath and Siskiyou ranges, and the highest parts of the Transverse Ranges (Humple 2008). While the species range in California has remained stable over time, populations have declined steadily (Cade and Woods 1997). Loggerhead shrikes establish breeding territories in open habitats with relatively short vegetation that allows for visibility of prey; they can be found in grasslands, scrub habitats, riparian areas, other open woodlands, ruderal habitats, and developed areas including golf courses and agricultural fields (Yosef 1996). They require the presence of structures for impaling their prey; these most often take the form of thorny or sharp-stemmed shrubs, or barbed wire (Humple 2008). Ideal breeding habitat for loggerhead shrikes is comprised of short grass habitat with many perches, shrubs or trees for nesting, and sharp branches or barbed wire fences for impaling prey. Shrikes nest earlier than most other passerines, especially in the west where populations are sedentary. The breeding season may begin as early as late February, and lasts through July (Yosef 1996). Nests are typically established in shrubs and low trees including sagebrush, willow, and mesquite, through brush piles may also be used when shrubs are not available. Loss and degradation of breeding habitat, as well as possible negative impacts of pesticides, are considered to be the major contributors to the population declines exhibited by this species (Cade and Woods 1997).

Loggerhead shrikes are uncommon in the Bay Area but have been recorded occasionally in the Project vicinity (eBird 2017), and have been documented breeding on east San Bruno Mountain (Sequoia Audubon Society 2001). However, records in the area are few, and the Project site is isolated from larger patches of suitable habitat by extensive development. No suitable nesting or foraging habitat is present on the Project site.

San Francisco common yellowthroat (*Geothlypis trichas sinuosa*). Federal Listing Status: None State Listing Status: Species of Special Concern (breeding). The San Francisco (also known as Salt Marsh) subspecies of the widely-distributed common yellowthroat is found only on the immediate coast of California from Tomales Bay in the north to the southern edge of San Mateo County in the south, including the San Francisco Bay. Their current range reflects their historic distribution, but habitat degradation and loss dramatically reduced the abundance of the subspecies within its range, even resulting in local extirpations before increases in freshwater marsh habitats on the bay began increasing in the 1980s as a result of increases in freshwater effluent discharged from wastewater treatment plants (Gardali and Evens 2008). San Francisco common yellowthroats are typically associated with brackish marshes and freshwater riparian swamps; they nest in the dense emergent vegetation that grows up in such moist areas (Guzy and Ritchison 1999). Common yellowthroats will use small and isolated patches of habitat as long as groundwater is close enough to the surface to encourage the establishment of dense stands of rushes (*Scirpus* spp.), cattails, willows (*Salix* spp.), *Juncus* spp., or other emergent vegetation (Nur et al. 1997). Ideal habitat, however, is comprised of at least 0.4 ha of thick riparian or marsh vegetation in perpetually moist areas, where populations of brown-headed cowbirds (*Molothrus ater*) are low (Menges 1998). Common yellowthroats build open-cup nests low in the vegetation, and nest from mid-march through late July. Common yellowthroats remain in their breeding range year-round (Guzy and Ritchison 1999, Gardali and Evens 2008).

Salt marsh vegetation along the shoreline is marginally suitable for breeding, and individuals have been observed near the Project site during the breeding season (eBird 2017). It is possible that one or two pairs may breed on the site. However, given the marginal nature of the habitat, this species most likely occurs only as a nonbreeding visitor.

Alameda song sparrow (*Melospiza melodia pusillula*). Federal Listing Status: None; State Listing Status: Species of Special Concern. The Alameda song sparrow is a subspecies of the widely distributed song sparrow, which can be found, typically near water, in nearly every habitat type throughout North America (Arcese et al. 2002). The Alameda song sparrow is a year-round endemic resident of the salt marshes of the San Francisco Bay from the cities of San Francisco and El Cerrito at the northern end of its range, to the southern limits of the Bay in Santa Clara County (Chan and Spautz 2008). While the range of the Alameda song sparrow has remained relatively unchanged over time, populations have been reduced substantially and are continually threatened by the loss and fragmentation of salt marshes around the Bay (Nur et al. 1997, Chan and Spautz 2008). Alameda song sparrows are inhabitants of tidally-influenced salt marshes dominated by pickleweed (*Salicornia* sp.) and cordgrass (*Spartina* sp.) (Chan and Spautz 2008). They breed from February through August, and require some areas of high marsh for nesting habitat, in order to avoid inundation of nests during high tides (Arcese et al. 2002). While Alameda song sparrows will nest in exotic cordgrass as well as native pickleweed, birds nesting in cordgrass experience a significantly lower rate of nest success, largely due to tidal flooding, than birds nesting in native pickleweed, which is typically found at higher elevations in the marsh and is thus less susceptible to flooding (Nordby et al. 2008). Alameda song sparrows forage on bare ground along sloughs and in bare patches within the tidal marshes, consuming plants and invertebrates. Prime habitat for Alameda song sparrows is composed of large areas of tidally-influenced marsh intersected by tidal sloughs, offering dense vegetative cover, singing perches, and areas of high marsh for nesting; free from cordgrass and introduced predators; and adjacent to extensive upland habitat (Chan and Spautz 2008).

Alameda song sparrows have been documented historically in the Project vicinity in Belmont, San Bruno, San Mateo, and near Colma Creek (CNDDB 2010). Salt marsh vegetation along the shoreline is marginally suitable for breeding, and individuals have been observed near the Project site during the breeding season (eBird 2017). It is possible that one or two pairs may breed on the site.

Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*). Federal Listing Status: None; State Listing Status: Species of Special Concern. Bryant's savannah sparrow, a subspecies of the widely distributed savannah sparrow, is a California endemic ranging along the immediate coast from Humboldt Bay, Humboldt County, in the north; to Point Conception, Santa Barbara County, in the south (Wheelwright and Rising 2008). Bryant's savannah sparrows breed from April through July (Dobkin and Granholm 1990) in the upper portions of tidally-influenced marshes, grasslands and ruderal habitats adjacent to tidal marshes, moist grasslands and pastures within the fog belt, and occasionally in drier grasslands up to 25 mi inland. Ideal habitat is comprised of extensive moist grassland or upper marsh habitats with relatively short vegetation, some patches of bare ground, and nearby drainages (Fitton 2008). Cup nests are built on or near the ground in dense vegetation (Wheelwright and Rising 2008). Non-breeding habitat preferences are little known, but may be similar to breeding season habitats. The range of the Bryant's savannah sparrow has remained relatively stable, but numbers have declined, largely due to habitat loss, fragmentation, and degradation (Fitton 2008).

Savannah sparrows have been regularly observed in the Project vicinity, but most of these individuals were observed during migration and winter periods. A few individuals have been documented during the breeding season about 3.5 mi north of the Project site at Bayview Hill, and approximately 8 mi south of the Project site at Tidelands Park in Foster City (eBird 2017). Breeding savannah sparrows have been documented on western San Bruno Mountain, in San Bruno, and in Millbrae (Sequoia Audubon Society 2001). The salt marsh habitat on and adjacent to the Project site is unsuitable for nesting due to its small size and proximity to development. This species is therefore expected to occur on the Project site only as a nonbreeding visitor.

Sensitive and Regulated Plant Communities and Habitats

The CDFW ranks certain rare or threatened plant communities, such as wetlands, meadows, and riparian forest and scrub, as 'threatened' or 'very threatened'. These communities are tracked in the CNDDB. Impacts to CDFW sensitive plant communities, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under the California Environmental Quality Act (California Code of Regulations: Title 14, Div. 6, Chap. 3, Appendix G). Furthermore, wetland and riparian habitats are also afforded protection under applicable federal, state, or local regulations, and are generally subject to regulation, protection, or consideration by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and/or the USFWS. Essential Fish Habitat is identified and regulated by the National Marine Fisheries Service (NMFS) in collaboration with regional, state and local agencies, and is defined as any habitat that is essential to the long-term survival and health of United States fisheries. Eelgrass beds are considered a sensitive resource by the USACE and CDFW because little accurate information exists about the historic distribution of eelgrass beds, and because of their current relative scarcity and importance in the overall ecology of the bay.

CDFW Sensitive Habitats. No sensitive habitats are mapped by the CDFW in the Project vicinity (Figure 3).

Essential Fish Habitat. The tidal aquatic and salt marsh habitats on and adjacent to the Project site are considered EFH by the NMFS for a species assemblage that includes anchovies, sardines, rockfish, sharks, sole, and flounder.

Eelgrass Beds. Eelgrass beds form areas of important habitat for birds, fish, and crustaceans and are one of the preferred spawning habitats of pacific herring (Wyllie-Echeverria and Fonseca 2003). These plants also support grazing crustaceans, shrimp, and amphipods. Because it requires light for photosynthesis, eelgrass is limited by water clarity to depths of about 6 feet or less. Eelgrass beds and patches occur in both subtidal and intertidal areas of the San Francisco Bay. Although no eelgrass beds or patches have been mapped closer than 3 mi from the Project area, the NMFS (2010) considers portions of Oyster Point to offer suitable eelgrass habitat, and there is some evidence that eelgrass populations in the Bay are expanding (Merkel & Associates 2004). Thus, we cannot rule out the possibility that eelgrass patches or beds have become established near the Project area. However, no aquatic habitat, and thus no eelgrass beds, are present on the Project site itself.

Waters of the U.S./State. As discussed under *Regulatory Setting* above, open water and intertidal habitats of San Francisco Bay, the tidal canal at the southern edge of the site, and associated wetlands and shoreline areas (extending up to the high tide line or the upper limits of wetlands, whichever is higher) are considered Waters of the U.S. under the Clean Water Act and Waters of the State under the Porter-Cologne Water Quality Control Act. The approximate upslope limits of such areas are shown on Figure 2. These wetlands and aquatic habitats are also important habitats for a variety of animal species.

IMPACTS AND MITIGATION MEASURES

The proposed Project may have effects on the biological resources of the Project site. The California Environmental Quality Act (CEQA) and the CEQA Guidelines provide guidance in evaluating project impacts and determining which impacts will be significant. CEQA defines "significant effect on the environment" as "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." Under CEQA Guidelines section 15065 and Appendix G, a project's effects on biotic resources may be significant when the project would:

- "have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory"
- "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service"
- "have a substantial adverse effect on any riparian habitat or other sensitive natural community (*e.g.*, oak woodland) identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service"
- "have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act"
- "interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites"
- "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance"
- "conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan"

Key Assumptions

The following impact analysis is based on several key assumptions:

- No grading or placement of fill, either temporary or permanent, will occur in any aquatic or wetland habitat (*i.e.*, bayward of the "Approximate Limit of USACE Jurisdiction" indicated on Figure 2), including ruderal levee slope and northern coastal salt marsh habitat, during Project activities.
- Lighting will be in conformance with the Master Plan's lighting guidelines.

IMPACTS FOUND TO BE LESS THAN SIGNIFICANT

Impacts to Developed/Landscaped and California Annual Grassland/Coyote Brush Scrub Habitats

Project construction may result in the loss or conversion of up to 18.70 ac of developed/landscaped and 0.09 ac of California annual grassland/coyote brush scrub habitat due to the construction of buildings, landscaping, and other activities. These habitats are located within the boundary of the Project, and above USACE jurisdiction. Impacts during Project construction will reduce the extent of these habitat types on the Project site, and will result in a reduction in abundance of some of the common plant and wildlife species that use the site. However, these habitat types are relatively abundant and widespread regionally, and none of the habitats to be impacted by Project activities represent particularly sensitive, valuable (from the perspective of providing important wildlife habitat), or exemplary occurrences of these habitat types. Therefore, impacts to these habitats, and the loss of potential nesting, roosting, and foraging opportunities associated with such habitats, are not considered significant.

Impacts to Habitat for and Individuals of Non-breeding Special-Status Wildlife Species

Several terrestrial special-status species may use the Project area as transients or migrants, or may occur in very low numbers, but are not expected to breed at the site or to be present in any numbers, and thus would not be impacted significantly by Project activities. These species include the white-tailed kite, American peregrine falcon, black skimmer, northern harrier, Vaux's swift, yellow warbler, Bryant's savannah sparrow, and tricolored blackbird. California least terns could forage in small numbers in waters immediately adjacent to the Project site, but they are not expected to occur on the Project site itself.

White-tailed kites could potentially forage on the Project site on occasion, though habitat quality is low due to the lack of extensive open foraging habitat in the vicinity. American peregrine falcons have been observed occasionally on the Project site and throughout the Project vicinity; the nearest confirmed breeding location is on Bair Island near Redwood City (Sequoia Audubon Society 2001). This species is uncommon throughout the Bay Area, and does not occur frequently or in large numbers in the Project area. Black skimmers and California least terns are known to occur in the Bay in low numbers throughout the year, and a small breeding population of each species has become established in the South Bay. However there is no suitable nesting habitat for these species on the Project site and individuals are expected to forage in the small amount of marine aquatic habitat within the Project area rarely if at all. Northern harriers breed in San Mateo County (Sequoia Audubon Society 2001) and are regularly observed in grassy and marshy habitats throughout the year. Occasional individuals may forage in the grassy habitats on the Project site, but harriers are not expected to occur frequently or in any numbers, or to nest on the site. Vaux's swifts may occasionally forage for insects over the Project area, but would not roost there, nor would they occur frequently or in large numbers. Yellow warblers have been observed in the Project vicinity during migration, and the species forages in the Project area during migratory periods. However, the species is not expected to nest on the Project site. Bryant's savannah sparrows may nest nearby, outside the Project site, but no suitable nesting habitat is present on or very close to the site. Tricolored blackbirds may occasionally forage in

open grassy or ruderal portions of Project area, but records of birds in the vicinity are few, and they are not expected to occur there in any numbers or to nest on the site.

Project construction would not result in injury or mortality of any individuals of these species, which are mobile enough to avoid construction equipment. There would be no substantial loss of foraging or non-breeding habitat for any of these species, as the Project footprint primarily includes already developed and/or heavily impacted areas. Rather, the Project could impact these species only by impacting very small amounts of low-quality foraging habitat and by resulting in disturbance of foraging individuals (although any individuals occurring on the site would need to be habituated to the existing human activity). As a result, the Project's impacts do not meet the CEQA standard of having a *substantial* adverse effect on these species' populations, and the Project will have a less than significant impact on these species.

Impacts to Habitat for and Individuals of Certain Potentially Nesting Special-Status Birds

Two special-status bird species could potentially nest in or adjacent to the Project area but are not expected to be significantly impacted by the Project. These species include the San Francisco common yellowthroat and Alameda song sparrow, which may be represented by one or two pairs nesting in wetland vegetation along the Bay shoreline. Project activities will not result in the loss of any nesting or foraging habitat, but breeding individuals could be disturbed or displaced by construction-related noise and activity.

Because the amount and quality of habitat for San Francisco common yellowthroats and Alameda song sparrows on the Project site is low, and the number of nesting individuals that could be disturbed is very small, the Project's impacts would not substantially reduce regional populations of these species, and thus these impacts do not meet the CEQA standard of having a *substantial* adverse effect on these species. Although the loss of any active nests of protected birds would be in violation of federal and state laws (see Regulatory Setting above), impacts to these species and their habitats would not be considered a significant impact under the CEQA.

Impacts of Lighting on Terrestrial and Aquatic Animals

Lighting in and adjacent to more natural areas on the Project site, especially the shoreline along San Francisco Bay, is expected to increase as a result of the Project. Artificial lighting has been demonstrated to cause changes in the physiology and behavior of a number of animal taxa; while some animals take advantage of artificial lighting to more easily detect prey at night, or take advantage of prey concentrations attracted to artificial lights, other animals are adversely affected by artificial lighting (Rich and Longcore 2006). Species such as birds and amphibians can become disoriented by changes in lighting, and many species of insects are attracted to light (Longcore and Rich 2004). Reproductive behaviors of some species can be affected by the increased risk of predation caused by increases in lighting, and visual communication between individuals of can be disrupted by lighting (Longcore and Rich 2004). In more remote areas that are not already subjected to urban lighting, an increase in night lighting could disrupt the behavior of animals, potentially increase predation on some nocturnal animals, and result in displacement of the most sensitive species from areas with increased lighting. However, the Project area is already subjected to substantial amounts of night lighting, including night lighting

from roads, parking lots, and buildings. As a result, any wildlife currently using the site is habituated to the lighting present within this urban area.

The Project incorporates guidelines for the design of lighting to minimize light pollution in areas other than those intended to be lit. For example, lighting will be directed downward at low cut-off angles to minimize off-site light migration and the Project's contribution to light pollution. Because there is already a substantial amount of artificial lighting at Oyster Point, the implementation of these guidelines will prevent the installation of new lighting from substantially increasing lighting levels, and from impacting terrestrial and aquatic species. Therefore, impacts from increased lighting levels on wildlife will be less than significant.

Impacts of Increased Recreational Disturbance on Wildlife

Recreational demand in the Oyster Point area is expected to increase with the development of the Project, resulting from the associated increase in the population of people living on the Project site and recreating on and near the site. Increases in the use of Oyster Point, the Bay Trail north and south of the site, and other areas nearby could potentially subject biological resources (both within and outside the Oyster Point site, such as waterbirds using the edge of San Francisco Bay) to greater disturbance by people walking and biking. However, because there is already a substantial amount of human activity at Oyster Point and on portions of the Bay Trail nearby, wildlife that is present at Oyster Point and in surrounding areas is already largely habituated to high levels of human activity. Increased use of trails or other areas that are already fairly heavily used by people is thus not expected to substantially reduce the use of such areas by wildlife. Therefore, an increase in recreational users of the Bay Trail and other areas adjacent to wildlife habitat resulting from construction of the Project is not expected to have a substantial effect on wildlife in these areas.

IMPACTS FOUND TO BE LESS THAN SIGNIFICANT WITH MITIGATION

Indirect Impacts to Water Quality and Sensitive Habitats

Although no Project activities will occur in wetland or aquatic habitats, some grading, construction, and landscaping will occur in close proximity to, and upslope from, such sensitive habitats. There is thus some potential for Project activities to result in indirect effects on these habitats and on water quality in adjacent aquatic habitats. For example, in the absence of measures to prevent erosion and sedimentation, sediment may wash from construction areas into adjacent aquatic habitats, or soil loosened by grading could slide downslope into such areas. Such impacts could result in the loss or degradation of wetland or aquatic habitats, and degradation of water quality in adjacent waters. Due to the value of wetland and aquatic habitats to the ecology of the Bay's aquatic habitats and the value of these aquatic habitats to a variety of fish, benthic organisms, and other species, degradation of water quality or wetlands would be a significant impact.

The following mitigation measures will reduce construction-phase impacts on water quality to a less-than-significant level.

Mitigation Measure 1A. Incorporate Best Management Practices for Water Quality During Construction. The Project will incorporate Best Management Practices (BMPs) for water quality to minimize impacts on the surrounding wetlands and the San Francisco Bay during construction. These BMPs will include numerous practices that will be outlined within the Stormwater Pollution Prevention Plan (SWPPP), but will include measures such as:

1. No equipment will be operated in any aquatic or wetland habitat.
2. No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into aquatic or wetland habitat.
3. Standard erosion control and slope stabilization measures will be required for work performed in any area where erosion could lead to sedimentation of a waterbody. For example, silt fencing will be installed just outside the limits of grading and construction in any areas where such activities will occur upslope from, and within 50 ft of, any wetland, aquatic, or marsh habitat. This silt fencing will be inspected and maintained regularly throughout the duration of construction.
4. Machinery will be refueled at least 50 ft from any aquatic habitat, and a spill prevention and response plan will be developed. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

Mitigation Measure 1B. Minimize Soil Disturbance Adjacent to Wetland and Marsh Habitat. To the extent feasible, soil stockpiling, equipment staging, construction access roads, and other intensively soil-disturbing activities will not occur immediately adjacent to any wetlands or aquatic habitat that are to be avoided by the Project. The limits of the construction area will be clearly demarcated with Environmentally Sensitive Area fencing to avoid inadvertent disturbance outside the fence during construction activities.

Mitigation Measure 1C. Ensure Adequate Stormwater Run-off Capacity. Increases in stormwater run-off due to increased hardscape will be mitigated through the construction and maintenance of features designed to handle the expected increases in flows and provide adequate energy dissipation. All such features, including outfalls, will be regularly maintained to ensure continued function and prevent failure following construction.

Impacts to Migratory Birds from Buildings and Lighting

The Study Area is located along the Pacific Flyway for migratory birds, and the juxtaposition of wetland, shoreline, and open water habitats used by birds results in large-scale movements of birds along the edge of San Francisco Bay, both during long-distance movements (such as migration) and during daily movements between roosting and foraging habitats. During spring and fall migratory periods in particular, birders have documented high densities of migrant songbirds using vegetated areas at the edges of San Francisco Bay, and the Oyster Point Development Project area has the potential to support high densities of birds at times during migration. There is thus potential for injury or mortality of birds due to collisions with artificial structures such as buildings as birds engage in such movements.

Many birds migrate at night, when it is difficult for them to see structures in their paths. In addition, birds migrating at night are often attracted to sources of artificial light, particularly during periods of inclement weather. Exposure to night lighting can cause alteration of flight paths and can attract birds to the light source (Keyes 2005, Gauthreaux and Belser 2006). As a result, bright lights on buildings can result in bird collisions with the buildings. Even during the day, birds may collide with windows or with tall, glass-covered buildings. Large-scale collisions resulting in mortality of large numbers of birds have been documented in eastern and Midwestern North America (Avery 1979), and it is possible that such mortality could occur in the West as well.

It has been well documented that glass windows and building facades can result in injury or mortality of birds due to birds' collisions with these surfaces (Klem 2009). Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas); when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners); and when the combination of transparent glass and interior vegetation (such as in planted atria) results in attempts by birds to fly through glass to reach that vegetation. The greatest risk of avian collisions with buildings occurs in the area within 60 feet of the ground, because this is the area in which most bird activity occurs (San Francisco Planning Department 2011).

Within the Project area, there is some potential for birds to collide during daytime and nocturnal flights with existing structures such as windows of office buildings. The new buildings within the Project site have the potential to result in an increased number of bird collisions if they have characteristics, such as greater coverage by glass on the facades or free-standing glass walls, that increase collision risk. Additionally, operating effects associated with the lighting of the buildings can alter the flight patterns of migratory birds and potentially increase bird strike collisions with the tall buildings.

Although large-scale injury or mortality of birds due to collisions with buildings has not been reported from the West Coast, depending on the design of the buildings there is some potential for such mortality to occur in the absence of mitigation measures. Because of these potential effects, the Project is considered to have a potentially significant impact to migratory birds. Implementation of the following measures will reduce impacts to migrating and foraging birds as a result of Project construction to less-than-significant levels:

Mitigation Measure 2A. Lighting Measures to Reduce Impacts to Birds. During design of any building greater than 100 feet tall, the Project Applicant shall consult with a qualified biologist experienced with bird strikes and building/lighting design issues to identify lighting-related measures to minimize the effects of the building's lighting on birds. Such measures, which may include the following and/or other measures, will be incorporated into the building's design and operation.

- Use strobe or flashing lights in place of continuously burning lights for obstruction lighting. Use flashing white lights rather than continuous light, red light, or rotating beams.

- Install shields onto light sources not necessary for air traffic to direct light towards the ground.
- Extinguish all exterior lighting (*i.e.*, rooftop floods, perimeter spots) not required for public safety.
- When interior or exterior lights must be left on at night, the operator of the buildings shall examine and adopt alternatives to bright, all-night, floor-wide lighting, which may include:
    - Installing motion-sensitive lighting.
    - Using desk lamps and task lighting.
    - Reprogramming timers.
    - Use of lower-intensity lighting.
- Windows or window treatments that reduce transmission of light out of the building will be implemented to the extent feasible.

Mitigation Measure 2B. Building Design Measures to Minimize Bird Strike Risk. During design of project buildings, the Project Applicant will consult with a qualified biologist experienced with bird strikes and building/lighting design issues to identify measures related to the external appearance of the building to minimize the risk of bird strikes. Such measures, which may include the following and/or other measures, will be incorporated into the building's design.

- Minimize the extent of glazing.
- Use low-reflective glass.
- Use window films, frit patterns, mullions, blinds, or other internal or external features to "break up" reflective surfaces rather than having large, uninterrupted areas of surfaces that reflect, and thus may not appear noticeably different (to a bird) from, vegetation or the sky.

CUMULATIVE IMPACTS

Cumulative impacts arise from a concatenation of impacts from past, current, and reasonably foreseeable future projects in the region. With implementation of the mitigation measures above, no significant impacts are expected as a result of project-level implementation of the Oyster Point Development Project. The proposed Oyster Point Development Project will therefore not result in a cumulatively considerable contribution to cumulative impacts to biological resources. Furthermore, implementation of mitigation measures in the Oyster Point Business Park and Marina Area Redevelopment Master Plan EIR will reduce impacts from the OPSP on biological resources to less-than-significant levels.

With the exception of isolated protected open spaces, the Project vicinity is largely built up, and few areas for new development remain. However, infill development and redevelopment of existing areas are likely to occur in the Project vicinity. For example, the Candlestick Point-

Hunters Point Shipyard redevelopment project is proposed just north of the Project site (City of San Francisco 2010). All of these Projects are each expected to complete (or have completed) their own separate CEQA reviews, and to address any potential impacts therein by mitigating them to a less than significant level.

Project impacts will result primarily from the loss or modification of regionally abundant terrestrial habitats and the associated modification of wildlife communities dominated by regionally abundant species. Due to the abundance of these species and habitat types regionally, the Project will not contribute to cumulative impacts on these resources.

Wetland and aquatic habitats of San Francisco Bay, which could be impacted by the Project, are of particular ecological importance, have undergone more substantial modification by human activities, and are less extensive regionally than the upland habitats that will be impacted by the Project. However, not only will the Project mitigate its contribution to cumulative impacts to these resources, but restoration projects such as the South Bay Salt Ponds Restoration Project and others throughout San Francisco Bay will enhance and restore Bay habitats and animal communities in the coming decades, thus helping to reverse cumulative impacts on these resources.

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APPENDIX A.
SPECIAL-STATUS PLANT SPECIES REJECTED FOR OCCURRENCE

Appendix A. Special-status Plant Species Considered but Rejected for Occurrence.							
Scientific Name	**Common Name**	**Lack of Serpentine (S) or Alkaline (A) Soils.**	**Lack of Other Edaphic Requirements.**	**Outside Elevation Range for Species.**	**Outside Endemic Range or Outside Known Extant Range.**	**Specific Habitat Type Not Present on Site.**	**Habitat on Site too degraded to Support Species.**
Acanthomintha duttonii	San Mateo thorn-mint	S		X		X	
Allium peninsulare var. franciscanum	Franciscan onion	S		X		X	
Amsinckia lunaris	bent-flowered fiddleneck						X
Arabis blepharophylla	coast rock cress					X	
Androsace elongata ssp. acuta	California androsace			X			
Arctostaphylos andersonii	Anderson's manzanita			X		X	
Arctostaphylos franciscana	Franciscan manzanita			X		X	
Arctostaphylos hookeri ssp. ravenii	Presidio manzanita			X	X	X	
Arctostaphylos imbricata	San Bruno Mountain manzanita			X		X	
Arctostaphylos montaraensis	Montara manzanita			X		X	
Arctostaphylos pacifica	Pacific manzanita			X		X	
Arctostaphylos regismontana	Kings Mountain manzanita		X	X		X	
Arenaria paludicola	marsh sandwort				X		
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch					X	
Atriplex joaquiniana	San Joaquin spearscale				X	X	
Calandrinia breweri	Brewer's calandrinia					X	
California macrophylla	round-leaved filaree		X			X	
Carex comosa	bristly sedge				X		
Cordylanthus maritimus ssp. *palustris*	Point Reyes bird's-beak				X		
Calochortus umbellatus	Oakland star-tulip			X			
Castilleja ambigua ssp. ambigua	johnny-nip				X		X
Calochortus uniflorus	large-flowered mariposa lily					X	
Centromadia parryi ssp. parryi	pappose tarplant					X	
Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower					X	
Chorizanthe robusta var. robusta	robust spineflower				X	X	
Chorizanthe valida	Sonoma spineflower				X	X	
Cirsium andrewsii	Franciscan thistle					X	
Cirsium fontinale var. fontinale	Crystal Springs fountain			X	X	X	

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Scientific Name	**Common Name**	**Lack of Serpentine (S) or Alkaline (A) Soils.**	**Lack of Other Edaphic Requirements.**	**Outside Elevation Range for Species.**	**Outside Endemic Range or Outside Known Extant Range.**	**Specific Habitat Type Not Present on Site.**	**Habitat on Site too degraded to Support Species.**
	thistle						
Cirsium occidentale var. compactum	compact cobwebby thistle				X	X	
Clarkia franciscana	Presidio clarkia	S			X	X	
Collinsia corymbosa	round-headed Chinese-houses					X	
Collinsia multicolor	San Francisco collinsia					X	
Cypripedium fasciculatum	clustered lady's-slipper	S		X			
Dirca occidentalis	western leatherwood			X		X	
Elymus californicus	California bottle-brush grass					X	
Equisetum palustre	marsh horsetail			X			
Eriophyllum latilobum	San Mateo woolly sunflower			X		X	
Erysimum franciscanum	San Francisco wallflower		X				
Fritillaria biflora var. ineziana	Hillsborough chocolate lily	S		X		X	
Fritillaria lanceolata var. tristulis	Marin checker lily					X	
Fritillaria liliacea	fragrant fritillary					X	
Gilia capitata ssp. chamissonis	blue coast gilia					X	
Gilia millefoliata	dark-eyed gilia					X	
Grindelia hirsutula var. maritima	San Francisco gumplant					X	
Helianthella castanea	Diablo helianthella			X			
Hesperevax sparsiflora var. brevifolia	short-leaved evax					X	
Hesperolinon congestum	Marin western flax	S				X	
Holocarpha macradenia	Santa Cruz tarplant				X		
Horkelia cuneata ssp. sericea	Kellogg's horkelia				X	X	
Horkelia marinensis	Point Reyes horkelia					X	
Iris longipetala	coast iris					X	
Layia carnosa	beach layia					X	
Leptosiphon acicularis	bristly leptosiphon		X				
Leptosiphon ambiguus	serpentine leptosiphon	S		X			
Leptosiphon croceus	coast yellow leptosiphon					X	

Appendix A. Special-status Plant Species Considered but Rejected for Occurrence.							
Scientific Name	**Common Name**	**Lack of Serpentine (S) or Alkaline (A) Soils.**	**Lack of Other Edaphic Requirements.**	**Outside Elevation Range for Species.**	**Outside Endemic Range or Outside Known Extant Range.**	**Specific Habitat Type Not Present on Site.**	**Habitat on Site too degraded to Support Species.**
Leptosiphon rosaceus	rose leptosiphon					X	
Lessingia arachnoidea	Crystal Springs lessingia	S				X	
Lessingia germanorum	San Francisco lessingia					X	
Lessingia hololeuca	woolly-headed lessingia	S				X	
Lilium maritimum	coast lily					X	
Lotus formosissimus	harlequin lotus					X	
Lupinus arboreus var. eximius	San Mateo tree lupine			X		X	
Malacothamnus aboriginum	Indian Valley bush-mallow		X	X		X	
Malacothamnus arcuatus	arcuate bush-mallow					X	
Malacothamnus davidsonii	Davidson's bush-mallow			X		X	
Malacothamnus hallii	Hall's bush-mallow					X	
Micropus amphibolus	Mt. Diablo cottonweed					X	
Microseris paludosa	marsh microseris					X	
Monardella undulata	curly-leaved monardella					X	
Monolopia gracilens	woodland woolythreads			X		X	
Piperia michaelii	Michael's rein orchid					X	
Plagiobothrys chorisianus var. chorisianus	Choris' popcorn-flower					X	
Plagiobothrys diffusus	San Francisco popcorn-flower			X		X	
Polemonium carneum	Oregon polemonium					X	
Potentilla hickmanii	Hickman's cinquefoil					X	
Sanicula hoffmannii	Hoffmann's sanicle					X	
Sanicula maritima	adobe sanicle		X	X			
Silene verecunda ssp. verecunda	San Francisco campion			X			
Stebbinsoseris decipiens	Santa Cruz microseris		X				
Sueada californica	California seablite				X		
Triquetrella californica	coastal triquetrella		X			X	
Zigadenus micranthus var. fontanus	marsh zigadenus	S				X	