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memorandum

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to Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 Project File

from Rachel Danielson; Chris Rogers

subject Habitat Value Assessment at the Mission Bay Blocks 29-32 Project Site

Reconnaissance Survey

Biological resources within the proposed project site were verified by an ESA biologist through field reconnaissance conducted on August 28, 2014. Prior to the reconnaissance survey, a review of database queries was conducted for the project site and surrounding area. The field reconnaissance consisted of a pedestrian survey within the proposed project site's boundary and visual observations of the adjacent environments. Field surveys focused on identifying habitat for special-status plant and wildlife species. General habitat conditions were noted and incidental species observations were recorded. The findings of the reconnaissance survey were used in conjunction with review of literature and database queries to compile the list of special-status species that may occur at the project site and to characterize the local project setting, described below.

Project Site Description

The proposed project site is approximately 11acres located at Blocks 29-32 in the Mission Bay South redevelopment planning area of the southeastern San Francisco waterfront. The site is bounded by South Street to the north, Third Street to the west, 16th Street to the south, and future realigned Terry A. Francois Boulevard to the east. The San Francisco Bay shoreline is directly east of Terry A. Francois Boulevard, approximately 200 feet from the project site.

Historically, the Mission Bay area was a shallow, salt marsh-dominated, wide-mouthed embayment covering 260 acres of the San Francisco Bay. The present-day China Basin Channel is the only remnant of the original Mission Bay which consists of an unlined, dredged waterway approximately 200 feet wide and 3,400 feet long, with engineered concrete rubble rip-rap and earthen banks.[1]

The Mission Bay area of San Francisco is now undergoing substantial urban growth with the development of the University of California San Francisco (UCSF) Medical Center, UCSF campus facilities, office buildings and biotech laboratories, and residential condominiums which surround the proposed project site.

The proposed project site includes two operational, paved parking lots along the north and west boundaries with the remainder of the site consisting of an undeveloped ruderal lot largely covered in gravel and surrounded by chain link fencing.

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1 City and County of San Francisco Department of Planning, 1998. *Final Mission Bay Subsequent Environmental Impact Report.* San Francisco, CA.

Large stockpiles covered in plastic are located along the east boundary adjacent Terry A. Francois Blvd. Topography of the proposed site is mostly flat with the exception of a depression in the southwest portion which was created by excavation and backfill associated with prior remediation of the site under the Regional Water Quality Control Board (RWQCB) Order R2-2005-028. The depression is what remains of the primary excavation pit within the project site that was substantially larger during remediation activities then partially backfilled to its current condition. The deepest excavation of the depression is approximately 0.67-acre in size and roughly rectangular in shape with a graduated depth of between four and seven feet. At the time of the reconnaissance site visit the depression was retaining water which was covered with floating algae. Shallow depressions in the upland portion of the site occur directly to the east of the deepest excavation and are also the result of soil remediation and the excavation and backfilling of the main pit. A narrow channel enters the north end of the deep excavation from the east which drains the shallow depressions of the adjacent uplands.

Vegetation Communities and Habitat within the Project Site

Vegetation within the ruderal site is dominated by non-native annual grasses and opportunistic weedy species which thrive in such ruderal environments and include, foxtail brome (*Bromus madritensis*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), Italian rye grass (*Festuca perennis*), rattail sixweeks grass (*Festuca myuros*), Bermuda grass (*Cynodon dactylon*), fennel (*Foeniculum vulgare*), pampas grass (*Cortaderia jubata*), bristly ox tongue (*Helminthotheca echioides*), black mustard (*Brassica nigra*), stinkwort (*Dittrichia graveolens*), white sweetclover (*Melilotus albus*), cut leaf plantain (*Plantago coronopus*), and cheeseweed (*Malva parviflora*). Native prostate coyote bush (*Baccharis pilularis*) was also prevalent throughout the site. Birds commonly found in such areas with limited habitat value are seed-eating and include non-native species such as English sparrow (*Passer domesticus*) and European starling (*Sturnus vulgaris*) as well as birds native to the area, including house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), Brewer's blackbird (*Euphagus cyanocephalus*), and rock pigeon (*Columba livia*). Other common wildlife present in such an urban landscape which might forage or inhabit the site would be urban in nature and include species such as striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), Botta's pocket gopher (*Thomomys bottae*) and other small rodents.

Vegetation within the depression differs from the ruderal upland portion of the site and includes wetland species such as alkali bulrush (*Bolboschoenus maritimus*) concentrated in the southeast and northwest corners where the excavation is the deepest, with saltgrass (*Distichlis spicata*), brass buttons (*Cotula coronopifolia*), fat-hen (*Atriplex prostrata*) along the shallow banks. Vegetation within the shallow depressions east of the depression is a composition of non-native Bermuda grass and native saltgrass. Though the standing water within the depression appears to be of low quality as evidences by large areas of floating algal plant mats, it is still supportive of common wildlife. A snowy egret (*Egretta thula*) was observed hunting at the water's edge and a black phoebe (*Sayornis nigricans*) was sallying insects from a bulrush perch. Evidence of Canada goose (*Branta canadensis*) feeding on non-native grass and saltgrass in the shallow depressions is present on the site.

Special-Status Species

A review of database queries was conducted for special-status species occurrences documented in the regional project vicinity (i.e. San Francisco County, San Francisco North and San Francisco South 7.5-minute U.S. Geological Survey quadrangles) including the California Department of Fish and Wildlife's (CDFW[2]) California Natural Diversity Database (CNDDB)[3], U.S. Fish and Wildlife Service (USFWS)[4], and California Native Plant Society (CNPS)[5]. Lists compiled of

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2 The California Department of Fish and Game (CDFG) changed its name on January 1, 2013 to the California Department of Fish and Wildlife (CDFW). In this document, references to literature published by CDFW prior to Jan. 1, 2013 are cited as 'CDFG, [year]'. The agency is otherwise referred to by its new name, CDFW."

3 CDFW, 2014. California Natural Diversity Database Rarefind 5. Biogeographic Data Branch, Sacramento, CA. Data dated September 3, 2014.

sensitive plant and animal species from these databases document 34 sensitive plant species and 41 sensitive animal species within the regional vicinity of the project site. **Table 1**, Special-Status Plant Species Reported or with Potential to Occur Near The Event Center And Mixed-Use Development Area at Mission Bay Blocks 29-32 and **Table 2**, Special-Status Animal Species Reported or with Potential to Occur Near The Event Center And Mixed-Use Development Area at Mission Bay Blocks 29-32, lists special-status plants and animals, their preferred habitats and plant blooming periods, and their potential to occur in the project area. Conclusions regarding habitat suitability and species occurrence are based on the analysis of existing literature and database query results described above, and the reconnaissance survey conducted by ESA on August 28, 2014. It was then determined whether there is a low, moderate, or high potential for species occurrence on the project site based on previous special-status species record locations, habitat requirements, and current site conditions. Of the 75 special-status species reported within the regional project vicinity, none were determined to have a moderate or high potential to occur on the proposed project site due to lack of suitable habitat or supportive vegetation communities which these species require for sustained use.

Wetlands

The deeper excavation and surrounding shallow depressions within the proposed project site are features that exhibit hydrology and vegetation characteristics of wetlands. Hydric soil is presumed present due to the year-round inundation and presence of obligate[6] wetland plants. The deeper excavation is at a sufficient depth to intersect groundwater and a review of aerial imagery reveals water within the deeper excavation year round, while the shallow depressions appear to be seasonally wetted[7]. Vegetation composition within the deeper excavation differ from the upland, ruderal portions of the site and include several species that commonly occur in wetlands such as alkali bulrush, brass buttons, and fat-hen and require constant or extended periods of saturation to survive. Vegetation within the shallow depressions include a combination of saltgrass and Bermuda grass which can be found in both upland and wetland communities. Such seasonal wetlands are inundated during the wet season and support annual and perennial native and nonnative wetland indicator species, many of which can be found in both seasonal wetland and upland communities which appears to be the case at the proposed project site. This plant association may not resemble a wetland community during the dry season when some wetland indicator species are dormant and true upland annual grasses and forbs may take their place as the soils dry.

Conclusions

Habitat quality of the wetlands, as with the upland portions of the proposed project site at Mission Bay Blocks 29-32, is of limited value to resident and migratory birds and common urban wildlife. Occasional visitation by waterfowl associated with San Francisco Bay or by passerine and raptor species stopping over seasonally while traveling along the Pacific Flyway migratory corridor may occur; however, the site would not be considered essential habitat for these species or of local or regional importance to wildlife due to its overall ruderal nature and surrounding built-up environment. Site conditions suggest that the most likely species to use the site would be common wildlife, described above, which readily adapt to urbanized environments. Lastly, no special-status species have been observed or documented on the site and would not be expected to occupy the site in its current condition.

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4 USFWS, 2014. Federal Endangered and Threatened Species that Occur in or May be Affected by Projects in the San Francisco North and San Francisco South U.S. Geological Survey 7.5-minute Quadrangles. USFWS Endangered Species Division. http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists-form.cfm.

5 CNPS, 2014. Inventory of Rare and Endangered Plants (online edition, v8-02). Sacramento, California. http://www.cnps.org/cnps/rareplants/inventory/ (accessed September 10, 2014).

6 Plants that occur almost always (estimated probability >99%) in wetlands under natural conditions, but which may also occur rarely (estimated probability <1%) in non-wetlands.

7 "Mission Bay Blocks 29-32." 37°46'04.39"N 122°23'14.32" W. Google Earth. February 2007, June 2007, April 2008, September 2008, October 2008, January 2010, April 2011, and February 2014. Accessed September 5, 2014.

TABLE 1
SPECIAL-STATUS PLANT SPECIES REPORTED OR WITH POTENTIAL TO OCCUR NEAR THE EVENT CENTER AND MIXED-USE DEVELOPMENTAREA AT MISSION BAY BLOCKS 29-32

Common Name Scientific Name	Federal Status	State Status	Calif. Rare Plant Rank	Habitat Description / Blooming Period	Potential to Occur in the Action Area
Species Listed or Proposed for Listing					
Presidio Manzanita *Arctostaphylos montana* ssp. *ravenii*	FE	CE	1B.1	Open, rocky, serpentine slopes in chaparral, coastal scrub, and coastal prairie. February – March	**Absent.** No suitable habitat present.
Marsh sandwort *Arenaria paludicola*	FE	CE	1B.1	Freshwater or brackish marshes and swamps. May – August	**Low.** No suitable habitat present.
Presidio clarkia *Clarkia franciscana*	FE	CE	1B.1	Serpentine outcrops in coastal scrub, and valley and foothill grassland. May – July	**Low.** No suitable habitat present.
Beach layia *Layia carnosa*	FE	CE	1B.1	Sand dunes. March – July	**Low.** No suitable habitat present.
San Francisco lessingia *Lessingia germanorum*	FE	CE	1B.1	Coastal scrub, sandy soils free of competing species. July – November	**Low.** No suitable habitat present.
White rayed pentachaeta *Pentachaeta bellidiflora*	FE	CE	1B.1	Open, dry, rocky slopes and grassy areas, usually on serpentine. March – May	**Low.** No suitable habitat present.
Marin western flax *Hesperolinon congestum*	FT	CT	1B.1	Chaparral and grassland, usually on serpentine barrens. April – July	**Low.** No suitable habitat present.
California seablite *Suaeda californica*	FE	--	1B.1	Coastal Salt Marsh, wetland-riaprian July - October	**Low.** Documented occurrences south of the proposed project at Pier 94 and India Basin. Suitable habitat not present within the project site.
Franciscan manzanita *Arctostaphylos franciscana*	FE	--	1B.1	Open, rocky, serpentine outcrops in chaparral. February – April	**Absent.** No suitable habitat present. This species was believed to be extinct in the wild (although still extant through cultivation), but was rediscovered in Presidio National Park in late 2009.
Robust spineflower *Chorizanthe robusta* var. *robusta*	FE	--	1B.1	Sandy or gravelly coastal dunes, coastal scrub, cismontane woodland and maritime chaparral. April – September	**Low.** No suitable habitat present.
Showy ranchería clover *Trifolium amoenum*	FE	--	1B.1	Valley grassland, wetland riparian April - June	**Low.** No suitable habitat present. No local records documented in San Francisco.

TABLE 1 (Continued)
SPECIAL-STATUS PLANT SPECIES REPORTED OR WITH POTENTIAL TO OCCUR NEAR THE EVENT CENTER AND MIXED-USE DEVELOPMENTAREA AT MISSION BAY BLOCKS 29-32

Common Name Scientific Name	Federal Status	State Status	Calif. Rare Plant Rank	Habitat Description / Blooming Period	Potential to Occur in the Action Area
Species Listed or Proposed for Listing (cont.)					
San Bruno Mountain manzanita *Arctostaphylos imbricada*	--	CE	1B.1	Chaparral and coastal scrub, usually on sandstone outcrops. February – May	**Absent.** No suitable habitat present.
Pacific manzanita *Arctostaphylos pacifica*	--	CE	1B.2	Coastal scrub and chaparral. February – April	**Absent.** No suitable habitat present.
San Francisco popcorn-flower *Plagiobothrys diffusus*	--	CE	1B.1	Coastal prairie, and valley and foothill grasslands. March – June	**Low.** No suitable habitat present.
Federal Species of Concern or State Species of Special Concern					
Adobe sanicle *Sanicula maritima*	--	Rare	1B.1	Moist clay or ultramafic soil in chaparral, coastal prairie, meadows, seeps, and valley and foothill grassland. February – May	**Low.** No suitable habitat present.
Hairless popcorn-flower *Plagiobothrys glaber*	--	--	1A	Coastal salt marshes and alkaline meadows. March – May	**Low.** No suitable habitat present.
coast lilly *Lilium maritimum*	--	--	1B.1	Coastal Prairie, mixed evergreen forest, northern coastal scrub, closed-cone pine forest, north coastal coniferous forest, wetland-riparian May – August	**Low.** No suitable habitat present.
Northern curly-leaved mondarella *Mondarella sinuata* ssp. *Nigrescens*	--	--	1B.2	Coastal strand, chaparral May - July	**Low.** No suitable habitat present.
Blue coast gilia *Gilia capitata* spp. *chamissonis*	--	--	1B.1	Coastal dunes and scrub. April – July	**Low.** No suitable habitat present. Extant population is present within the Presidio of San Francisco.
Kellogg's horkelia *Horkelia cuneata* ssp. *sericea*	--	--	1B.1	Coastal scrub, dunes, and openings of closed-cone coniferous forests. February – July	**Low.** No suitable habitat present.
Rose leptosiphon *Leptosiphon rosaceus*	--	--	1B.1	Coastal bluff scrub. April – July	**Low.** No suitable habitat present.
Fragrant fritillary *Fritillaria liliacea*	--	--	1B.2	On clay, often serpentine derived soils in coastal scrub, grassland, and coastal prairie. February – April	**Low.** No suitable habitat present. Extant population located at Twin Peaks.
Federal Species of Concern or State Species of Special Concern (cont.)					
Bent-flowered fiddleneck *Amsinckia lunaris*	--	--	1B.2	Coastal bluff scrub, cismontane woodland, and valley and foothill grassland. March – June	**Low.** No suitable habitat present.
Montara manzanita *Arctostaphylos*	--	--	1B.2	Slopes and ridges in chaparral and coastal scrub.	**Absent.** No suitable habitat present.

TABLE 1 (Continued)
SPECIAL-STATUS PLANT SPECIES REPORTED OR WITH POTENTIAL TO OCCUR NEAR THE EVENT CENTER AND MIXED-USE DEVELOPMENTAREA AT MISSION BAY BLOCKS 29-32

Common Name Scientific Name	Federal Status	State Status	Calif. Rare Plant Rank	Habitat Description / Blooming Period	Potential to Occur in the Action Area
montaraensis				January – March	
Alkali milk-vetch *Astragualus tener* var. *tener*	--	--	1B.2	Alkali flats, flooded grassland, playas and vernal pools. March – June	**Low.** No suitable habitat present; species presumed extirpated in San Francisco.
Pappose tarplant *Centromadia parryi* ssp. *parryi*	--	--	1B.2	Chaparral, coastal prairie, meadows, seeps, coastal salt marshes and swamps, and vernally mesic, often alkaline, valley and foothill grasslands. May – November	**Low.** No suitable habitat present.
Franciscan thistle *Cirsium andrewsii*	--	--	1B.2	Coastal bluff scrub, coastal prairie, coastal mesic scrub, and broadleaf upland forest; sometimes on serpentine. March – July	**Low.** No suitable habitat present.
San Francisco Bay spineflower *Chorizanthe cuspidata* var. *cuspidata*	--	--	1B.2	Coastal scrub, dunes and grassland. April – July	**Low.** No suitable habitat present.
Point Reyes bird's-beak *Chloropyron maritimum* ssp. *palustre*	--	--	1B.2	Coastal salt marshes and swamps. June – October	**Low.** No suitable habitat present.
Compact cobwebby thistle *Cirsium occidentale* var. *compactum*	--	--	1B.2	Coastal scrub, grassland, and dunes. April – June	**Low.** No suitable habitat present.
Round-headed Chinese-houses *Collinsia corymbosa*	--	--	1B.2	Coastal dunes and coastal prairie. April – June	**Low.** No suitable habitat present; species has not been seen in San Francisco for more than 100 years.
San Francisco collinsia *Collinsia multicolor*	--	--	1B.2	On humus-covered soil derived from mudstone in closed-cone coniferous forest, coastal scrub. March – May	**Low.** No suitable habitat present.
Dark-eyed gilia *Gilia millefoliata*	--	--	1B.2	Coastal dunes. April – July	**Low.** No suitable habitat present; species potentially extirpated in San Francisco.
Federal Species of Concern or State Species of Special Concern (cont.)					
Diablo helianthella *Helianthella castanea*	--	--	1B.2	On rocky soils in broadleaf upland forest, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. March – June	**Absent.** No suitable habitat present.
White seaside tarplant *Hemizonia congesta* ssp. *congesta*	--	--	1B.2	Grassy valleys and hills, often on fallow fields in coastal scrub. April – November	**Low.** No suitable habitat present.
Short-leaved evax *Hesperevax sparsiflora*	--	--	1B.2	Sandy bluffs and flats in coastal scrub and coastal dunes.	**Low.** No suitable habitat present.

TABLE 1 (Continued)
SPECIAL-STATUS PLANT SPECIES REPORTED OR WITH POTENTIAL TO OCCUR NEAR THE EVENT CENTER AND MIXED-USE DEVELOPMENTAREA AT MISSION BAY BLOCKS 29-32

Common Name Scientific Name	Federal Status	State Status	Calif. Rare Plant Rank	Habitat Description / Blooming Period	Potential to Occur in the Action Area
var. *brevifolia*				March – June	
Arcuate bush mallow *Malacothamnus arcuatus*	--	--	1B.2	Gravelly alluvium in chaparral and cismontane woodland. April – September	**Absent.** No suitable habitat present.
Marsh microseris *Microseris paludosa*	--	--	1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland. August – June	**Low.** No suitable habitat present.
Choris's popcorn-flower *Plagiobothrys chorisianus* var. *chorisianus*	--	--	1B.2	Mesic sites in chaparral, coastal scrub, and coastal prairie. March – June	**Low.** No suitable habitat present.
San Francisco campion *Silene verecunda* ssp. *verecunda*	--	--	1B.2	Mudstone, shale, or serpentine substrates in coastal scrub, coastal prairie, chaparral and valley and foothill grassland. March – June	**Low.** No suitable habitat present.
Santa Cruz microseris *Stebbinsoseris decipiens*	--	--	1B.2	On sandstone, shale or serpentine derived seaward facing slopes in broadleaf upland forest, closed-cone coniferous forest, chaparral, coastal prairie, and coastal scrub. April – May	**Low.** No suitable habitat present.
Coastal triquetrella *Triquetrella californica*	--	--	1B.2	On shaded soil, rocks sand or gravel in dry or moist conditions or in coastal bluff and coastal scrub.	**Low.** No suitable habitat present.
San Francisco owl's clover *Triphysaria floribunda*	--	--	1B.2	Grasslands. April – June	**Low.** No suitable habitat present.
Bristly sedge *Carex comosa*	--	--	2B.1	Lake margins, marshes, swamps, coastal prairie, and valley and foothill grasslands. May – September	**Absent.** No suitable habitat present.
Federal Species of Concern or State Species of Special Concern (cont.)					
Oregon polemonium *Polemonium carneum*	--	--	2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. April – September	**Low.** No suitable habitat present.
San Francisco gumplant *Grindelia hirsutula* var. *maritima*	--	--	3.2	On sandy or serpentine slopes of sea bluffs in coastal scrub, or valley and foothill grasslands. June – September	**Absent.** No suitable habitat present.

NOTES:
The "Potential for Effect" category is defined as follows:
High = Species is expected to occur and habitat meets species requirements.
Moderate = Habitat is only marginally suitable or is suitable but not within species geographic range.
Low = Habitat does not meet species requirements as currently understood in the scientific community.

STATUS CODES:

Federal:
FE = Listed as "endangered" under the federal Endangered Species Act
FT = Listed as "threatened" under the federal Endangered Species Act
FSC = NOAA Fisheries designated "species of concern"

TABLE 1 (Continued)
SPECIAL-STATUS PLANT SPECIES REPORTED OR WITH POTENTIAL TO OCCUR NEAR THE EVENT CENTER AND MIXED-USE DEVELOPMENTAREA AT MISSION BAY BLOCKS 29-32

Common Name Scientific Name	Federal Status	State Status	Calif. Rare Plant Rank	Habitat Description / Blooming Period	Potential to Occur in the Action Area

FPD = Proposed delisted
FD = Delisted

State:
CE = Listed as "endangered" under the California Endangered Species Act
CT = Listed as "threatened" under the California Endangered Species Act
CSC = California Department of Fish and Wildlife designated "species of special concern"
CFP = California Department of Fish and Wildlife designated "fully protected"
SC = California Department of Fish and Wildlife designated "candidate threatened"
WL = California Department of Fish and Wildlife designated "watch list"
3503.5 = Eggs, Nests, and Nestlings Protected under section 3503.5 of the California Department of Fish and Game Code
* = California special animal

California Rare Plant Rank:
List 1A = Plants presumed extirpated in California and either rare or extinct elsewhere
List 1B = Plants rare, threatened, or endangered in California and elsewhere
List 2A = Plants presumed extirpated in California, but more common elsewhere
List 2B = Plants rare, threatened, or endangered in California, but more common elsewhere
List 3 = Plants about which we need more information--a review list
List 4 = Plants of limited distribution--a watch list

SOURCE: USFWS (2014), CDFW (2014), CNPS (2014).

TABLE 2
SPECIAL-STATUS ANIMAL SPECIES REPORTED OR WITH POTENTIAL TO OCCUR NEAR THE EVENT CENTER AND MIXED-USE DEVELOPMENTAREA AT MISSION BAY BLOCKS 29-32

Common Name ***Scientific Name***	**Federal Status**	**State Status**	**Habitat Description**	**Potential to Occur in the Action Area**
Invertebrates				
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE	--	Coastal scrub on rocky outcrops with broadleaf stonecrop (*Sedum spathulifolium*)	**Low.** No suitable habitat present. Three known populations at San Bruno Mountain, Montara, and Pacifica.
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT	--	Serpentine grasslands.	**Low.** No suitable habitat present.
Mission blue butterfly *Plebejus icarioides missionensis*	FE	--	Grassland with *Lupinus albifrons, L. Formosa*, and *L. varicolor.*	**Low.** Closest suitable habitat present at Twin Peaks. Species unlikely to occur at the project site.
Callippe silverspot butterfly *Speyeria callippe callippe*	FE	--	Found in native grasslands with *Viola pedunculata* as larval food plant.	**Low.** No suitable habitat present.
Monarch butterfly *Danaus plexippus*	--	*	Eucalyptus groves (wintering sites).	**Low.** No suitable habitat present though may occur on a transient basis. Several records of this species wintering in eucalyptus groves within San Francisco including Golden Gate Park, the Presidion, Fort Mason, and Telegraph Hill.
Tomales isopod *Caecuditea tomalensis*	--	--	Still-to slow-moving water in vegetated ponds, preferably spring-fed.	**Low.** No suitable habitat present.
Reptiles and Amphibians				
Western pond turtle *Emys marmorata*	--	CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	**Low.** No suitable habitat present.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE	SE	Densely vegetated ponds near open hillsides with abundant small mammal burrows.	**Absent.** Species is considered likely extirpated from San Francisco.
California red-legged frog *Rana draytonii*	FT	CSC	Freshwater ponds and slow streams with emergent vegetation for egg attachment.	**Low.** No suitable habitat present.
Birds				
California clapper rail *Rallus longirostris obsoletus*	FE	CE	Salt marsh wetlands along the San Francisco Bay.	**Low.** No suitable habitat present.
Bank swallow *Riparia riparia* (nesting)	--	CT	Vertical banks and cliffs with sandy soil, near water. Nests in holes dug in cliffs and river banks.	**Low.** No suitable habitat present.
Yellow warbler Dendroica petechia brewsteri	--	CSC	Nests in dense riparian cover and montane chaparral. Breeding distribution includes the coast ranges and western slopes of the Sierra Nevada. Rare to uncommon in lowland areas.	**Low. No suitable riparian habitat present.**

TABLE 2 (Continued)
SPECIAL-STATUS ANIMAL SPECIES REPORTED OR WITH POTENTIAL TO OCCUR NEAR THE EVENT CENTER AND MIXED-USE DEVELOPMENTAREA AT MISSION BAY BLOCKS 29-32

Common Name *Scientific Name*	**Federal Status**	**State Status**	**Habitat Description**	**Potential to Occur in the Action Area**
Birds (cont.)				
California black rail *Laterallus jamaicensis coturniculus*	--	CT	Salt and brackish marshes; also in freshwater marshes at low elevations.	**Low.** No suitable habitat present.
Salt marsh common yellowthroat *Geothlypis trichas sinuous*	--	CSC	Forages in various marsh, riparian and upland habitats. Nests on or near the ground in concealed locations.	**Low.** No suitable riparian habitat present.
Alameda song sparrow *Melospiza melodia pusillula*	--	CSC	Salt marshes of eastern and south San Francisco Bay.	**Low.** No suitable habitat present.
San Pablo song sparrow *Melospiza melodia samuelis*	--	CSC	Salt marshes of eastern and north San Francisco Bay.	**Low.** No suitable habitat present.
Peregrine falcon *Falco peregrinus*	FD	FP	Woodlands, coastal habitats, riparian areas, coastal and inland waters, human made structures that may be used as nest or temporary perch sites.	**Low.** May forage over the project area though proposed project site does not provide nesting habitat.
Double-crested cormorant *Phalacrocorax auritus*	--	WL, 3503.5	Coastal areas and inland lakes in fresh, saline, and estuarine waters.	**Low.** No suitable nesting habitat present at the proposed project site though colonies are known to nest on the Bay Bridge. Species may occur in adjacent Bay waters or over the project site on a transient basis.
Cooper's hawk *Accipiter cooperii*	--	3503.5	Nests in riparian areas and oak woodlands, forages at woodland edges.	**Low.** No suitable habitat present.
Sharp-shinned hawk *Accipiter striatus*	--	3503.5	Nests in riparian areas and oak woodlands, forages in open areas	**Low.** No suitable habitat present.
Great horned owl *Bubo virginianus*	--	3503.5	Riparian, coniferous, chaparral and desert habitats.	**Low.** No suitable habitat present.
Red-tailed hawk *Buteo jamaicensis*	--	3503.5	Found in nearly all habitats and elevations.	**Low.** No suitable habitat present. May occur over the project on a transient basis.
Red-shouldered hawk *Buteo lineatus*	--	3503.5	Riparian woodlands with swamps and emergent wetlands.	**Low.** No suitable habitat present.
American kestrel *Falco sparverius*	--	3503.5	Frequents generally open grasslands, pastures, and fields; primarily a cavity nester.	**Low.** No suitable habitat present. May occur over the project on a transient basis.
Osprey *Pandion haliaetus*	--	3503.5	Habitat varies greatly and usually includes adequate supply of accessible fish, shallow waters, open and elevated nest sites (10-60 feet in height), and artificial structures such as towers. Builds large platform stick nests near or in open waters such as lakes, estuaries, bays, reservoirs, and within the surf zone.	**Low.** No suitable habitat is present. May forage in adjacent waters. Project site does not provide suitable nesting habitat.
Birds (cont.)				
Great blue heron *Ardea herodias*	--	3503.5	Shallow estuaries and fresh and saline emergent wetlands.	**Low.** May forage in standing water of the onsite basin.
American goldfinch	--	3503.5	Cismontane foothills; riparian and	**Present.** Suitable habitat is present.

TABLE 2 (Continued)
SPECIAL-STATUS ANIMAL SPECIES REPORTED OR WITH POTENTIAL TO OCCUR NEAR THE EVENT CENTER AND MIXED-USE DEVELOPMENTAREA AT MISSION BAY BLOCKS 29-32

Common Name *Scientific Name*	**Federal Status**	**State Status**	**Habitat Description**	**Potential to Occur in the Action Area**
Carduelis tristis			cropland habitats.	
Barn swallow *Hirundo rustica*	--	3503.5	Open areas from coastal grassland and shrubland to mixed coniferous forests.	**Moderate.** Suitable habitat is present.
Mammals				
Western red bat *Lasiurus blossevillii*	--	CSC	Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	**Low.** No suitable habitat is present.
Pallid bat *Antrozous pallidus*	--	CSC	Prefers caves, crevices, hollow trees, or buildings in areas adjacent to open space for foraging. Associated with lower elevations in California.	**Low.** No suitable habitat is present.
Townsend's big-eared bat *Corynorhinus townsendii*	--	CSC SC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings of rocky areas with caves or tunnels. Roosting sites limited. Extremely sensitive to human disturbance.	**Low.** No suitable habitat is present.
American badger *Taxidea taxus*	--	CSC	Open grasslands with loose, friable soils.	**Low.** No suitable habitat present.
Point Reyes jumping mouse *Zapus trinotatus orarius*	--	CSC	Upland areas of bunch grass in marshes in Point Reyes.	**Low.** Project site is south of the known range for this species.

NOTES:
The "Potential for Effect" category is defined as follows:
High = Species is expected to occur and habitat meets species requirements.
Moderate = Habitat is only marginally suitable or is suitable but not within species geographic range.
Low = Habitat does not meet species requirements as currently understood in the scientific community.

STATUS CODES:

Federal:
FE = Listed as "endangered" under the federal Endangered Species Act
FT = Listed as "threatened" under the federal Endangered Species Act
FSC = NOAA Fisheries designated "species of concern"
FPD = Proposed delisted
FD = Delisted

State:
CE = Listed as "endangered" under the California Endangered Species Act
CT = Listed as "threatened" under the California Endangered Species Act
CSC = California Department of Fish and Wildlife designated "species of special concern"
CFP = California Department of Fish and Wildlife designated "fully protected"
SC = California Department of Fish and Wildlife designated "candidate threatened"
WL = California Department of Fish and Wildlife designated "watch list"
3503.5 = Eggs, Nests, and Nestlings Protected under section 3503.5 of the California Department of Fish and Game Code
* = California special animal

SOURCE: USFWS (2014), CDFW (2014), CNPS (2014).