

San Francisco Bay Trail at Point Molate

Preliminary Biological Resource Assessment



EBRPD
Contra Costa County, California

Prepared For:
EBRPD

Prepared By:
NCE
501 Canal Blvd, Suite I
Richmond, CA 94804

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John Heal
Senior Scientist

John Neal

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1.0 INTRODUCTION

This Preliminary Biological Resource Assessment was prepared for the site of the Point Molate Trail Project (Project). This report describes the biological resources found in the area and the potential for impacts to those biological resources that must be considered under the California Environmental Quality Act (CEQA). The report concludes with an analysis of those potential impacts

The objectives of this report are to:

- Summarize all site-specific information related to existing biological resources;
- Draw reasonable conclusions about the biological resources that could occur onsite based on habitat suitability, historical occurrences, and the proximity of the site to a species' known range;
- Identify and discuss the potential impacts to biological resources from the Project likely to occur on and near the site within the context of CEQA; and
- Identify avoidance and mitigation measures that would reduce potential impacts and that are generally consistent with recommendations of the resource agencies for affected biological resources.

1.1 PROJECT SITE AND STUDY AREA

The project study area is located in Contra Costa County, California (Figure 1) and includes the City of Richmond (City) rights-of-way and portions of adjacent private parcels. The Project overlaps or is located adjacent to portions of the following APNs: 561-040-013, 561-040-016, 561-040-015, 561-040-014, 561-040-004, 561-050-003, 561-400-004, 561-400-008, 561-100-008, and 561-080-006. The Project site is found on portions of the *San Quentin, California* 7.5 minute USGS quadrangle. Photographs of the site are found in **Appendix A**.

The project study area covers approximately 2.3 miles of trail and a width of 200 feet, which is approximately 55 acres. Areas of steep slopes are found along the eastern portion of the study area.

The proposed trail footprint is much smaller than the project study area. The larger project study area is examined to determine the potential for indirect impacts to protected habitats, flora, and fauna.

The proposed trail footprint is relatively level and follows the shoreline; at approximately 10 feet in width plus 2 foot wide shoulders on either side. According to the City of Richmond Zoning Map, the project study area is zoned Community and Regional Recreational (City of Richmond, 2008).

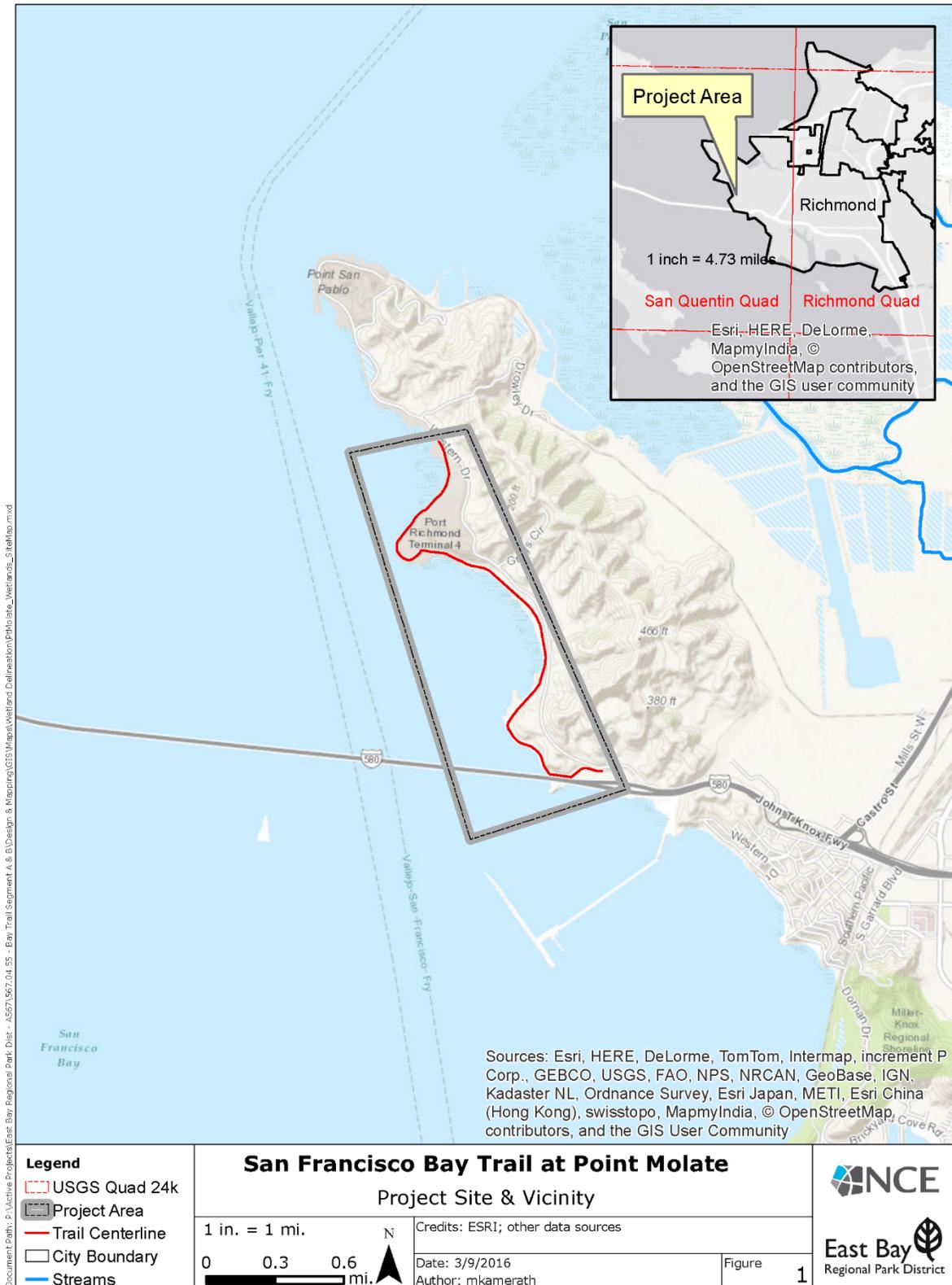


Figure 1: Project Site and Vicinity

1.2 PROJECT DESCRIPTION

The San Francisco Bay Trail is anticipated to be a 500-mile shoreline path that will encircle the Bay in the future. Currently more than 340 miles have been completed along the shoreline through nine counties and 47 cities. The East Bay Regional Park District (EBRPD) is conducting the engineering design documents, CEQA documents, and completion of all necessary regulatory permits to construct the San Francisco Bay Trail (Bay Trail) at Point Molate.

The current focus of the design and environmental documents is for the development of a 1.1 mile section of non-motorized Class I trail connecting the Bay Trail from the Richmond-San Rafael (RSR) Bridge out around Castro Point to the Point Molate Beach Park, which has been designated as Segment A as shown on **Figure 2A**.

The additional trail segment that EBRPD would like to include collaboratively with the City of Richmond is Segment B, shown on **Figure 2B**, which continues from Segment A at the southern edge of the Point Molate Park then extends through the park and continues north along Burma Road to the former Point Molate Treatment Pond area.

1.2.1 Project Design

The general approach to the design of the trail is to locate the footprint within the existing railroad alignment to minimize grading, using land that has already been developed to the extent practicable. The current design also allows for minimizing grading by using existing paved surfaces and old railroad ballasts for trail support. This will not only reduce grading costs but reduce construction exposure and more expensive handling and off-haul of potentially contaminated soils. The other advantage of working in the existing railroad alignment is railroad tracks are sited on “better ground” and provide good support for the future trail. Utilizing a previously impacted footprint for the trail will reduce the impact to sensitive resources and avoid most sensitive habitats.

EBRPD plans to use common and readily obtainable trail building materials that are cost effective, low maintenance, and easily procured by a contractor. The trail surface will be paved and the shoulders will be gravel or crushed rock.

Another key consideration is how the contractor will gain access to the site and where the contractor can store materials and equipment. The access for Segment A from the south end where the trail starts includes a parking lot which would promote a logical construction staging area. Segment B would have construction access via either Point Molate Beach Park or the former Point Molate Treatment Pond area.



Figure 2A: Project Site Plan



Figure 2B: Project Site Plan

2.0 METHODS

The purpose of this Preliminary Biological Resource Assessment is to describe the biological resources found in the area and the potential for impacts to those biological resources that must be considered under CEQA. Research was conducted on biological resources known to occur in the area and a site visit included both a reconnaissance level survey and a survey and mapping of the waters of the U.S. (WOUS) found on the site.

Site specific references and background information reviewed include:

- Analytical Environmental Services, 2009. *Point Molate Mixed-use Tribal Destination Resort and Casino Project DEIS/DEIR*.
- *California Natural Diversity Database (CNDDDB)*. 2015. California Department of Fish and Game, Sacramento, CA. Accessed online.
- California Native Plant Society. 2015. *Inventory of Rare and Endangered Vascular Plants of California* (online edition, v8-01a). Accessed online.
- LSA, 2011. *Natural/Cultural Resource Information, Point Molate Bay Trail*. Technical memorandum to EBRPD.
- LSA, 2011. *Wetland delineation Study, Point Molate Bay Trail*. Technical memorandum to EBRPD.
- Natural Resource Conservation Service. United States Department of Agriculture. *Web Soil Survey*. Accessed online.
- Tetra Tech, Inc., 1998. *Special Status Plant Survey and Habitat Assessment. Navy Fuel Depot, Point Molate, Contra Costa County, California*.
- U.S.G.S. *San Quentin, California (1995) 7.5 minute quadrangle*.
- U.S. Fish and Wildlife Service. 2015. *Federally Endangered and Threatened Species that Occur in or may be Affected by Projects in the San Quentin U.S.G.S. 7 ½ Minute Quad*. Accessed online.

The site was visited on October 26th, 27th, and 28th, 2015 by NCE scientists Mack Casterman, Marcy Kamerath and John Heal. A reconnaissance level survey was conducted, plant communities and habitats were observed and recorded, and the edges of the Ordinary High Water Mark (OHWM) and riparian area were delineated and subsequently mapped and previously mapped wetlands were confirmed. Transects were traversed on foot and the site was photographed. Focused surveys for special status species of flora and fauna were not conducted.

3.0 RESULTS

3.1 SOILS AND TOPOGRAPHY

3.1.1 Soils

According to the Natural Resources Conservation Service, soils found in the immediate vicinity of the project site are **Millsholm loam**, 20% to 60% slopes, **Quarry**, and **Urban land** (NRCS 2016). This soil unit is not known to contain serpentine (University of California, 2009). A summary of this soil unit is found in Table 1 below.

Table 1. Soils Occurring on the Point Molate Trail Project Site

Soil Series/Soil	Map Symbol	Parent Material	Drainage class	% of project boundary
Millsholm loam, 20 to 60 percent slopes, moist, MLRA 15	MeG	Very steep shallow fine loam	well drained	79%
Quarry	Qa	Depressions without soil		4%
Urban land	Ub	Generally pavement and buildings		17%

Source: NRCS 2011

3.1.2 Topography

Topography in the vicinity of the site ranges from rolling to steep. Elevations of the project site range from approximately 0 feet to 150 feet (0 meters to 45 meters) above mean sea level.

3.1.3 Climate

The climate in Contra Costa County (CCC) varies depending on the location and topography. Western CCC experiences cool summers and mild winters due to its proximity to San Francisco and San Pablo Bays. On the other hand, eastern CCC, which includes portions of the San Joaquin Valley, has hot and dry summers with cool winters. Elevation and proximity to the sea have a direct affect on the average annual precipitation across the County. Antioch, which is located near sea level, receives 13.34 inches, while the north gate at Mt. Diablo (elevation 344 feet) receives 22.77 inches and Richmond in western CCC receives 22.28 inches. While most precipitation falls in the form of rain across the County, higher elevation areas including Mt. Diablo and its surrounding foothills will receive snow during the winter months (NRCS 1977).

3.2 HABITATS

3.2.1 Project Region

The lands surrounding the site are on the coast are influenced by immediate proximity to the coast. Habitats in this area include eucalyptus forest, ruderal, northern coastal bluff scrub, native grassland, urban landscapes, high salt marsh, estuaries, tidflats, rocky and sandy intertidal zones, and the nearshore environment. Other habitats in the region include wetlands, ponds, riparian areas, and streams.

3.2.2 Project Site and Vicinity

Fourteen general habitat types were identified on the project study area (**Figures 3A – 3E**). These habitat types are based on their potential to support Special Status Species (SSS) flora and fauna. The habitat types are palustrine scrub-shrub, seasonal and seasonal seep wetlands, northern coastal bluff scrub, ruderal/developed, eucalyptus forest, landscaped, native grassland, estuarine wetland, rocky shoreline, mud flat, high salt marsh, sandy shoreline and open water. Photographs of the site are found in **Appendix A**.

Northern Coastal Bluff Scrub: Plants in the scrub community are characterized by flexible woody stems and soft leaves. At Pt. Molate, the scrub is adapted to cool conditions that are influenced by the maritime fog. The community at Pt. Molate has been classified as Northern Coastal Bluff Scrub – a rare type of coastal scrub that is classified by the California Department of Fish and Wildlife as a “Sensitive Natural Community” (G2.S2.2). Characteristic of its type, this community intergrades with native grassland at Pt. Molate. Species in the northern coastal bluff scrub community include: coyote brush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), coast buckwheat (*Erigonium latifolium*), coastal sagebrush (*Artemisia californica*), live oak (*Quercus agrifolia*), coffeeberry (*Rhamnus californica*), California buckeye (*Aesculus californica*), and snowberry (*Symphoricarpos albus*).

Eucalyptus Forest: This habitat type is invading coastal scrub and native grassland areas on the project site. Eucalyptus forest habitat is dominated by blue gum (*Eucalyptus globulus*); poison oak (*Toxicodendron diversilobum*), and toyon occur in the periphery.

Native Grassland: The native grassland at Pt. Molate is characterized by open areas of native bunchgrass and native forbs. These grassland areas include Purple Needlegrass and California Oatgrass alliances with either *Stipa pulchra* or *Danthonia californica* as the dominant species. According to the Manual of California Vegetation, purple needlegrass need only make up 5% of absolute cover, or 10% of relative cover to qualify as this alliance.

Together, these alliances make up a “coastal terrace prairie” community which is identified by a maritime (fog) influence and a cooler climate than grasslands in areas farther inland. This community type is rare throughout coastal regions of the State, but particularly in the East Bay where shoreline development has destroyed all but a few remnant stands such as the one at Pt. Molate. The California Department of Fish and Wildlife classifies this community as a “sensitive natural community” (G2.S2.1). Other species of note in the native grassland community at Pt. Molate include Molate fescue (*Festuca rubra* ‘molate’), a unique ecotype that has gained widespread use in the nursery trade and is believed to have originated at Pt. Molate. In the absence of grazing and fire, certain native grassland areas at Pt. Molate are in the process of being converted to coastal scrub and other areas are being invaded by invasives such as French broom (*Genista monspesullana*).

Landscape plantings: Established plants and trees that were planted as part of beach park landscaping. Species include Monterey pine (*Pinus radiata*), eucalyptus (*Eucalyptus* sp.), and acacia (*Acacia* sp.).

Palustrine Shrub Scrub Wetland: freshwater wetland areas which lack flowing water and may contain ocean derived salts due to proximity to shoreline. Dominated by shrub species such as red willow (*Salix laevigata*) and arroyo willow (*Salix lasiolepis*).

Freshwater Wetland: wetland areas that are only influenced by freshwater saturation, dominated by rushes (*Juncus effusus* and *Juncus patens*), Italian ryegrass (*Lolium multiflorum*) and meadow barley (*Hordeum branchyantherum*).

Estuarine wetland: A wetland habitat type characterized by being partially enclosed by land but with open or sporadic access to ocean water which is diluted by freshwater runoff from land. Estuarine wetlands are typically dominated by California cordgrass (*Spartina foliosa*). High salt marsh is dominated by pickleweed (*Salicornia virginica*), marsh gumplant (*Grindelia stricta*), and saltgrass (*Distichlis spicata*).

Rocky shoreline: mostly adjacent to ruderal areas. Rocks are largely anthropic in origin.

Sandy shoreline: shoreline with much salt water and tidal influence characterized by deep sand.

High salt marsh: A coastal habitat type found in the upper tidal zone between land and open salt water that is regularly flooded by tides.

Mud flat: A habitat characterized by open muddy land that is left uncovered at low tide.

Rocky shorelines and mud flats are generally unvegetated. Sandy shorelines are also unvegetated and open water may include eelgrass beds (*Zostera marina*).

Ruderal/Developed: previously developed areas that still exhibit the impacts of development - often characterized by pavement or heavily compacted soil. Plants are mostly non-native invasive with few native species present. These include ripgut brome (*Bromus diandrus*), Italian ryegrass, Italian thistle (*Carduus pycnocephalus*), field mustard (*Brassica rapa*), sticky tarweed (*Holocarpha virgata*), wild radish (*Raphanus sativus*), bristly ox-tongue (*Picris echioides*), artichoke thistle (*Cynara cardunculus*), and winter vetch (*Vicia villosa*).

Non-native plants that are invasive on the site include French broom, pampas grass (*Cortaderia jubata*), and ice plant (*Carpobrotus edulis x chilensi*), a non-native found on the beach south of Point Molate Park. Multiple invasive exotics listed by the California Invasive Plant Council (Cal-IPC) as species of 'High' concern were found on the site. These are Himalayan blackberry (*Rubus discolor*), French broom, and fennel (*Foeniculum vulgare*).

Wildlife Habitats. The habitats within and surrounding the project site support a varied assemblage of wildlife, which may move through the region or migrate seasonally. Intact or partially intact native grassland, high salt marsh, and willow scrub-shrub wetlands are increasingly scarce in the Bay area, and therefore crucially important to native wildlife.

Many shoreline habitats along San Francisco and San Pablo Bay are bisected by road and railroad. The railroad bed at Point Molate is no longer active; in fact, it is the location of the proposed trail. In addition, there are no through roads and traffic is limited. Because of this lower disturbance regime, the habitats along this trail corridor are particularly important for wildlife.

The proximity of habitat types provide habitat for a number of resident and migratory birds and makes the area particularly rich in avian fauna. Pelagic birds, shorebirds, waterfowl, passerines, raptors and others can be found in the vicinity from time to time. These and other birds may nest, forage, or winter in habitats on or adjacent to the site. The shoreline, wetland and upland habitats in the vicinity also provide foraging and cover for several mammal species. These include coyote (*Canis latrans*) and mule deer (*Odocoileus hemionus*).

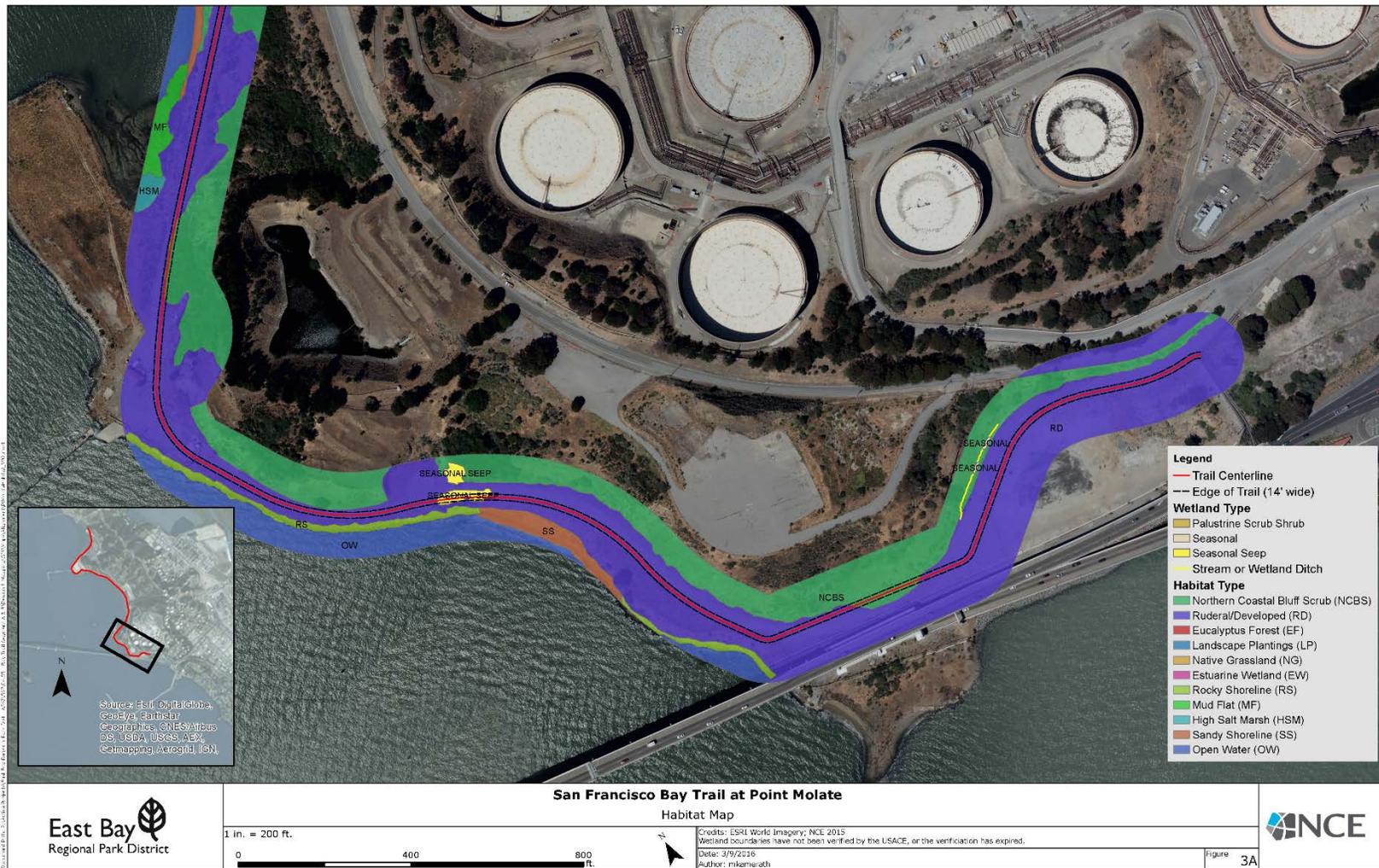


Figure 3A: Habitats

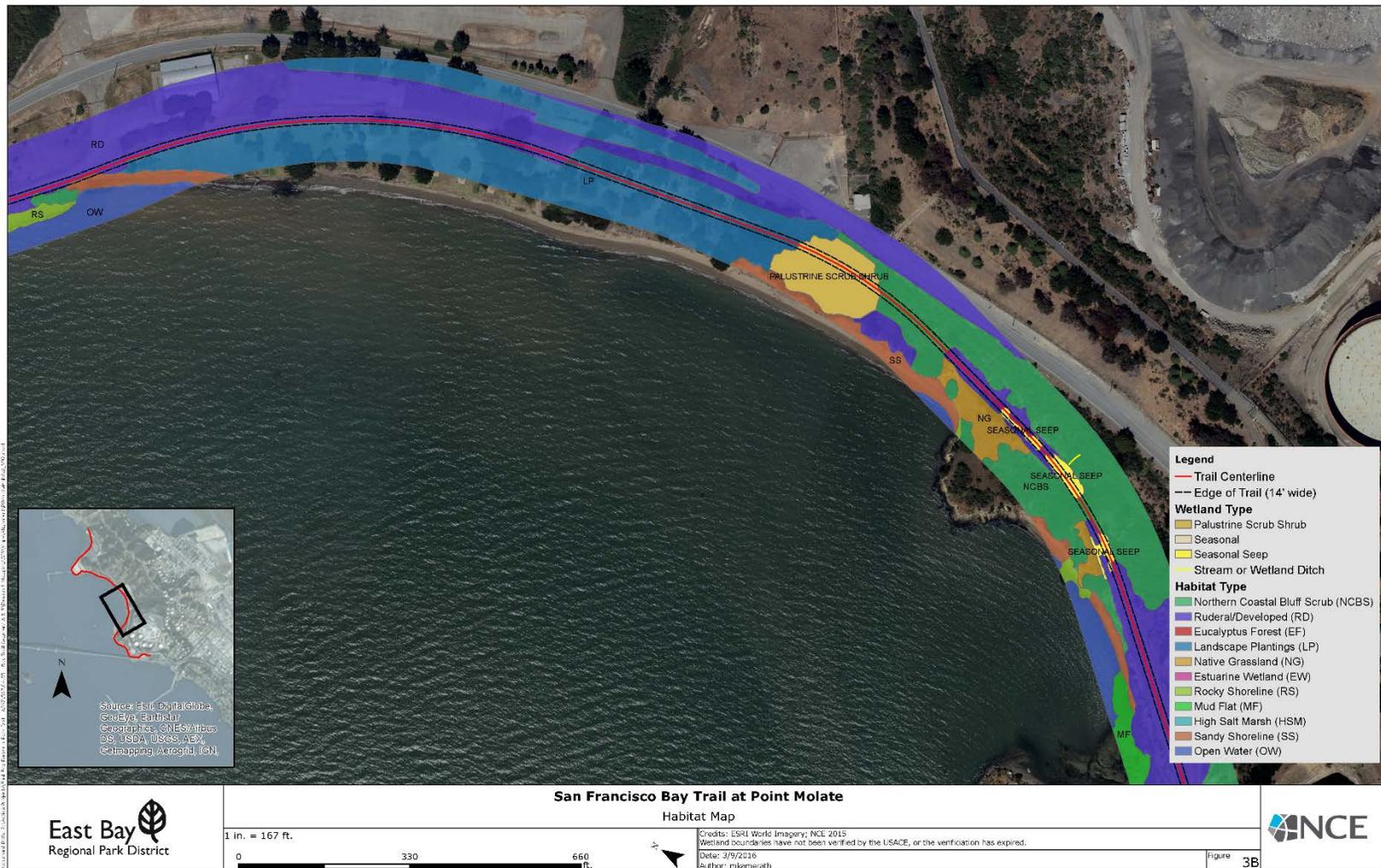


Figure 3B: Habitats

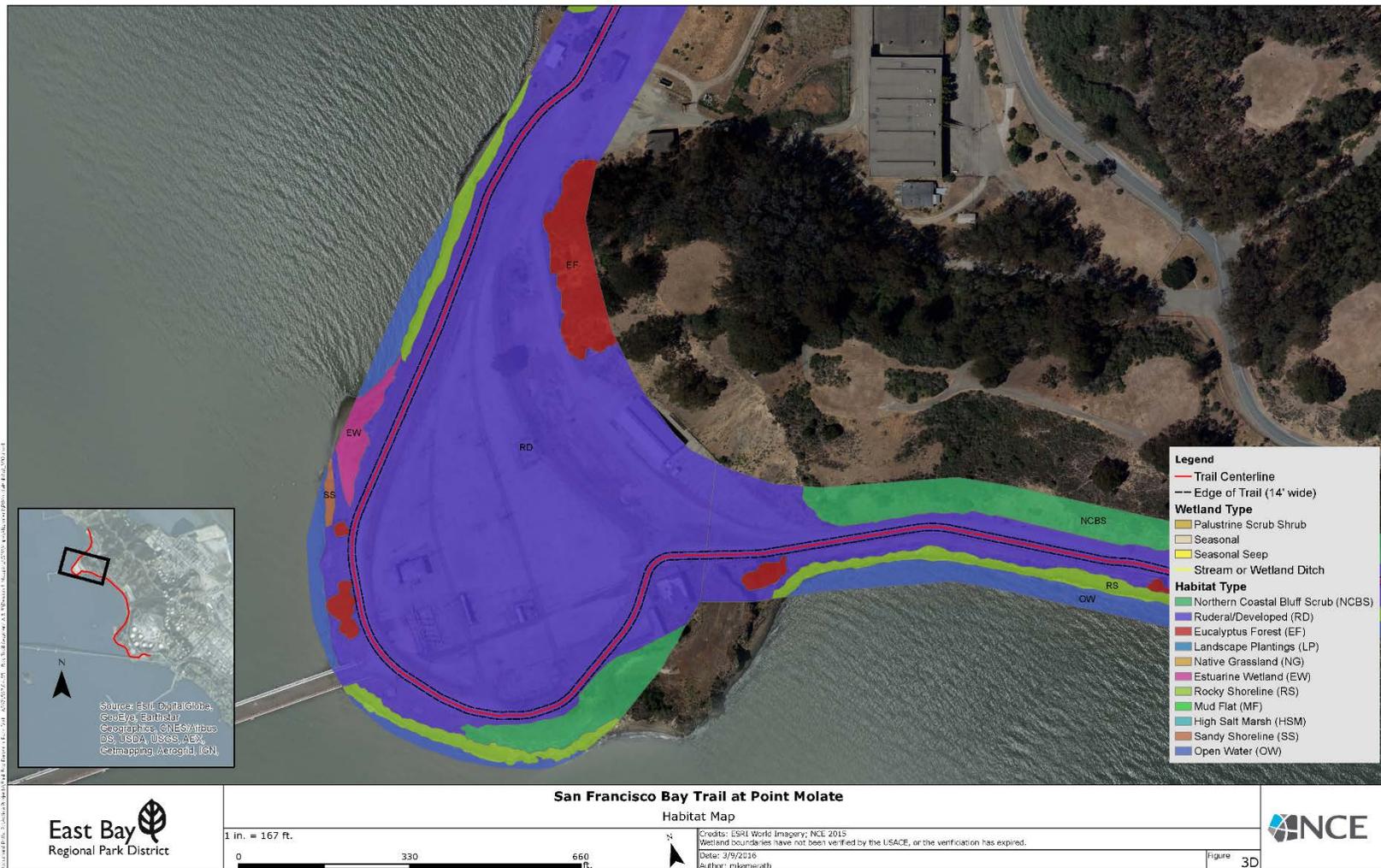


Figure 3D: Habitats

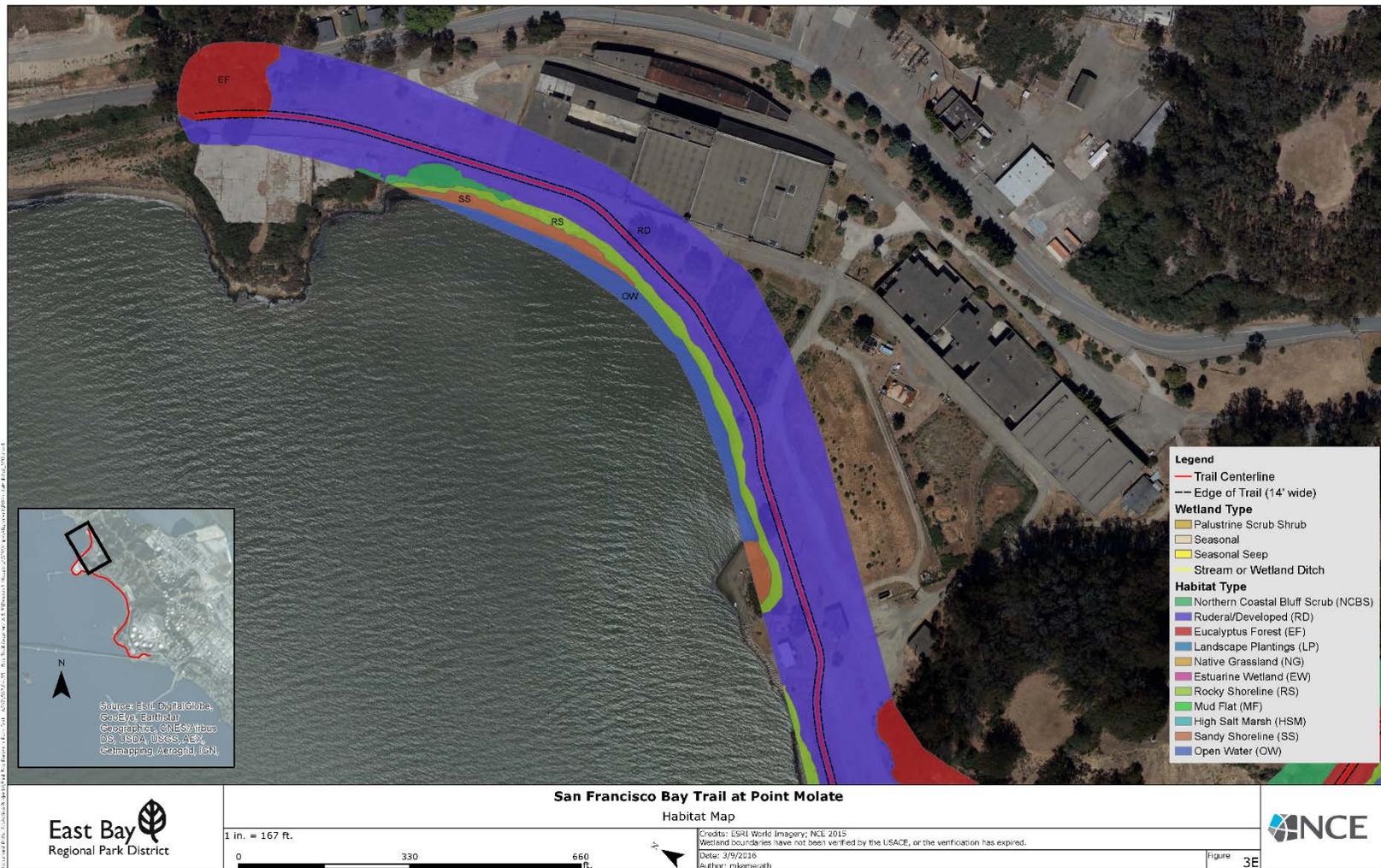


Figure 3E: Habitats

3.3 SPECIAL STATUS SPECIES

A wide variety of taxa native to the state of California have low populations, limited distributions, or are otherwise vulnerable to extinction or extirpation with the state. Although they may include Ecologically Significant Units and sub-species as well as species, these taxa are collectively referred to as “special status species” (SSS).

These flora and fauna may be considered “rare” and are vulnerable to extirpation as the state’s human population grows, the habitats these species occupy are converted to agricultural and urban uses, and they are subject to other impacts, such as climate change or wildfires. State and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with the responsibility for conserving and protecting the diversity of plant and animal species native to the state. Because of the diversity of habitats within the state, a relatively large number of native plants and animals have been formally designated as “threatened” or “endangered” under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as “species of special concern” by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2010). Additionally, conservation groups such as the American Fisheries Society, the World Conservation Union, and the Xerces Society have developed lists and categorized species that are of particular concern with regard to conservation.

A number of special status plants and animals have the potential to occur in the site’s vicinity (**Figure 4**). These species and the likelihood of their occurrence in the study area are listed in **Table 2**, found below. Sources of information for this table included *California’s Wildlife, Volumes I, II, and III* (Zeiner et. al 1988), *California Natural Diversity Database* (CDFG 2011), *California Wildlife Habitat Relationships* (CDFG 2008a), *National Marine Fisheries Service* (NOAA 2011), *A California Cooperative Anadromous Fish and Habitat Data Program* (CalFish 2011), and *The California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2010). This information was used to evaluate the potential for special status plant and animal species to occur on the site. It is important to note that the California Natural Diversity Database is a volunteer database of historical occurrences; therefore, it may not contain all known or gray literature records.

In addition to the CNDDDB, biological studies previously conducted in the vicinity were reviewed and determinations made regarding the likelihood of SSS to occur on the site or in nearby habitats. A list of federally protected species was generated for the *San Quentin* quadrangle by the USFWS and retrieved by NCE, and these species were also reviewed for their potential to occur on the site. The results are presented in **Table 2**.



Figure 4: CNDDB

Table 2. List of Special Status Species that May Occur in the Project Vicinity

Species	Status	Habitat	Occurrence in the study area
Plant Species			
Santa Cruz tarplant (<i>Holocarpha macradenia</i>)	FT, CE, CNPS 1B.1	Coastal prairie, coastal scrub, and valley and foothill grassland. 10 - 220 meters. Blooms June - October.	Unlikely. Species distribution limited to specific areas. Potential habitat does not exist on site.
Bent-flowered fiddleneck (<i>Amsinckia lunaris</i>)	1B.2	Coastal bluff scrub, cismontane woodlands, grasslands.	Possibly. Suitable habitat occurs on or near the site.
Alkali milk-vetch (<i>Astragalus tener</i> var. <i>tener</i>)	1B.2	Valley grassland, alkali sink, freshwater wetlands.	Possibly. Alkali pool at north end of segment 2 is potential habitat.
Point Reyes birds-beak (<i>Cordylanthus maritimus</i> ssp. <i>palutris</i>)	1B.2	Coastal salt marsh, wetland riparian.	Unlikely. Alkali pool and salt marsh could support this species. Assumed extirpated from the East Bay.
Soft birds-beak (<i>Cordylanthus mollis</i> ssp. <i>mollis</i>)	1B.2	Coastal salt marsh, wetland riparian.	Unlikely. Alkali pool and salt marsh could support this species. Reported from Point Pinole.
Loma Prieta hoita (<i>Hoita strobilina</i>)	1B.1	Usually serpentinite, mesic habitats including chaparral, cismontane woodland, and riparian woodland. 30 - 860 meters. Blooms May - October.	Unlikely. Species distribution limited to specific areas. Potential habitat does not exist on site.
Marsh gumplant (<i>Grindelia stricta</i> var. <i>angustifolia</i>)	CNPS 4	Coastal salt marshes.	Likely. Was observed near the site in 1998 (Tetra Tech, 1998).
California seablite (<i>Suaeda californica</i>)	FE, CNPS 1B.1	Marshes and swamps (coastal salt). 0 - 15 meters. Blooms July - October.	Absent. No records from Contra Costa County.
Marin Dwarf-flax (<i>Hesperolinon congestum</i>)	FT, CNPS 1B.1	Serpentine endemic.	Unlikely. Species distribution limited to specific areas.

Species	Status	Habitat	Occurrence in the study area
Showy Indian Clover (<i>Trifolium amoenum</i>)	FE, CNPS 1B.1	Valley grassland, riparian.	Absent. No records from Contra Costa County.
Tiburon Jewelflower (<i>Streptanthus niger</i>)	FE, CNPS 1B.1	Serpentine endemic.	Unlikely. Species distribution limited to specific areas.
Tiburon Mariposa Lily (<i>Calochortus tiburonensis</i>)	FT, CNPS 1B.1	Serpentine endemic.	Unlikely. Species distribution limited to specific areas.
Tiburon Paintbrush (<i>Castilleja affinis</i> ssp. <i>Neglecta</i>)	FE, CNPS 1B.2	Serpentine endemic.	Unlikely. Species distribution limited to specific areas.
White-rayed Pentachaeta (<i>Pentachaeta bellidiflora</i>)	FE, CNPS 1B.1	Valley grassland. Affinity for serpentine.	Unlikely. Species distribution limited to specific areas.
Suisun marsh aster (<i>Symphyotrichum lentum</i>)	1B.2	Freshwater wetlands, brackish marsh.	Likely. Historic record from the adjacent fuel depot site (AES, 2009).
Beach bur (<i>Ambrosia chamissonis</i>)	A2	Coastal habitat.	Present. Observed on sandy shoreline south of Point Molate Beach Park. Considered rare by Dianne Lake.
Avian Species			
Allen's hummingbird (<i>Selasphorus sasin</i>)	BCC	Coast chaparral, brushland, and edges of redwood forest.	Possible. May occur seasonally on or near the site.
San Pablo song sparrow (<i>Melospiza melodia samuelis</i>)	CSC, BCC	California Endemic. Year-round range confined to tidal and muted tidal salt marshes fringing San Pablo Bay. Dense vegetation is required for nesting sites, song perches, and as cover from predators.	Possible. Potential nesting habitat does exist near site.

Species	Status	Habitat	Occurrence in the study area
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	CT, FP, ABC WLBCB, IUCN NT, BCC	Most common in tidal emergent wetlands dominated by pickleweed (<i>Salicornia</i> sp.) or brackish marshes supporting bulrush (<i>Scirpus</i> sp.). Nesting occurs March-June in dense vegetation near upper limits of tidal flooding.	Possible. Potential nesting habitat does not exist on site. Dispersing birds could use adjacent salt marsh habitats.
Osprey (<i>Pandion haliaetus</i>)	CSC	Nests near large bodies of water with fish.	Present. Observed on site. At least one nest is located near the proposed trail route.
California clapper rail (<i>Rallus longirostris obsoletus</i>)	FE, CE, FP, ABC WLBCB	Requires emergent wetlands and tidal sloughs, although occasionally uses transition zone between wetland and adjacent upland habitat. Nesting occurs mid-March to July in lower zones of saline emergent wetlands, where cordgrass (<i>Spartina</i> sp.) is abundant and tidal sloughs are nearby.	Possible. Potential nesting habitat does not exist on site. Dispersing birds could use adjacent salt marsh habitats.
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	FT, CSC, ABC WLBCB, BCC	Can be found on sandy beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Breeding occurs March-September in shallow scrapes or depressions in the sand.	Possible. Beaches in project vicinity are too small to allow nesting, but birds may occasionally forage in these habitats.

Species	Status	Habitat	Occurrence in the study area
California brown pelican (<i>Pelecanus occidentalis californicus</i>)	F Delisted-2009, C Delisted 2009, FP	Frequents estuarine, marine subtidal, and marine pelagic waters. Breeds March - August on Channel Islands (Anacapa, Santa Barbara, and Santa Cruz).	Present. Observed near the site.
California least tern (<i>Sternula antillarum browni</i>)	FE, SE, FP, ABC WLBCB,	Migratory. Feeds in shallow estuaries or lagoons where small fish are abundant. Breeds in abandoned salt ponds and along estuarine shores in San Francisco Bay. Breeding occurs in areas free of human or predatory disturbance from April-August.	Unlikely. Does not occur on the site. May forage in shallow near shore waters during summer.
Peregrine falcon (<i>Falco peregrinus anatum</i>)	CE	Individuals breed on cliffs in the Sierra or in coastal habitats; occurs in many habitats of the state during migration and winter.	Unlikely. Peregrine falcon may occur incidentally on the site if they forage over adjacent areas. Suitable nesting habitat is absent from the site.
Short-eared owl (<i>Asio flammeus</i>)	BCC	Open country and grasslands.	Possible. This species may occur incidentally on the site, or may nest in grassland on or near the site.
Black-vented shearwater (<i>Puffinus opisthomelas</i>)	BCC	Usually within a few miles of shore during winter. Breeds in Mexico.	Unlikely. May occur incidentally off shore near the site. Suitable nesting habitat is absent from the site.
Costa's hummingbird (<i>Calypte costae</i>)	BCC	Very arid regions where there is some minor brush or scrub cover. In summer the breeding range extends into California.	Possible. This species may occur incidentally on the site, or may nest in shrubs on or near the site.
Fox sparrow (<i>Passerella iliaca</i>)	BCC	Thickets and edges of forests or chaparral. Nests near the ground.	Possible. This species may occur incidentally on the site, or may nest in shrubs on or near the site.
Lawrence's goldfinch (<i>Carduelis lawrencei</i>)	BCC	Nesting habitat is dry and open woods that are near both brushy areas and fields of tall annual weeds.	Possible. This species may occur incidentally on the site, or may nest in shrubs on or near the site.

Species	Status	Habitat	Occurrence in the study area
Least Bittern (<i>Ixobrychus exilis</i>)	BCC	Nests in large marshes with dense vegetation. The nest is a well-concealed platform built from cattails and other marsh vegetation.	Unlikely. May occur incidentally near the site. Suitable nesting habitat is absent from the site.
Lesser yellowlegs (<i>Tringa flavipes</i>)	BCC	Coastal mudflats and flooded fields during winter.	Unlikely. May occur near the site in winter. Suitable nesting habitat is absent from the site.
Lewis's woodpecker (<i>Melanerpes lewis</i>)	BCC	Mixed oak woodland, ponderosa pine.	Unlikely. May occur on or near the site in winter.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	BCC	The bird requires an open habitat with an area to forage, elevated perches and nesting sites. Prefers shorter vegetation.	Possible. May occur on the site in winter.
Long-billed curlew (<i>Numenius americanus</i>)	BCC	Mudflats, salt marshes, beaches; breeds in grasslands.	Unlikely. May occur on or near the site in winter.
Marbled godwit (<i>Limosa fedoa</i>)	BCC	Mudflats, salt marshes, beaches; breeds in grasslands.	Unlikely. May occur on or near the site in winter.
Nuttall's woodpecker (<i>Picoides nuttallii</i>)	BCC	Oak woodland, riparian habitat, and chaparral.	Possible. This species may occur incidentally on the site, or may nest in trees on or near the site.
Oak titmouse (<i>Baeolophus inornatus</i>)	BCC	Open mixed oak woodlands.	Unlikely. Suitable habitat does not exist on the site.
Olive-sided flycatcher (<i>Contopus cooperi</i>)	BCC	Coniferous and eucalyptus woodlands.	Possible. This species may occur incidentally on the site, or may nest in trees on or near the site.
Pink-footed shearwater (<i>Puffinus creatopus</i>)	BCC	This species is pelagic, occurring in the Pacific Ocean. It predominantly nests on offshore islands off Chile.	Unlikely. Suitable habitat does not exist on the site.
Short-billed dowitcher (<i>Limnodromus griseus</i>)	BCC	Mudflats, salt marshes, beaches; breeds in bogs, tidal marshes, and forests.	Unlikely. May occur on or near the site in winter.
Yellow rail (<i>Coturnicops noveboracensis</i>)	BCC	Wet meadows, fens, and shallow marshes. May winter on the California coast.	Possible. May occur on the site.

Species	Status	Habitat	Occurrence in the study area
Yellow warbler (<i>Dendroica petechia</i> ssp. <i>Brewsteri</i>)	BCC	Riparian trees and shrubs, particularly willow.	Possible. May occur on the site.
Red knot (<i>Calidris canutus</i> ssp. <i>Roselaari</i>)	BCC	Mudflats, salt marshes, beaches; breeds in tundra.	Unlikely. May occur on or near the site in winter.
Burrowing owl (<i>Athene cunicularia</i>)	BCC	Open country, prairies, deserts, fallow fields, coastal dunes with mammal burrows and friable soils.	Unlikely. Suitable habitat does not exist on the site.
Swainson's hawk (<i>Buteo swainsoni</i>)	BCC	Open and semi-open country – deserts, grasslands and prairies. Nests in isolated or riparian trees.	Possible. Swainson's hawk may occur incidentally on the site if they forage over adjacent areas. They are unlikely to nest on the site.
Northern harrier (<i>Circus cyaneus</i>)	CSC	Open grasslands, marshes, and riparian woodlands. Nests in undisturbed open field or meadow.	Possible. Northern harrier may occur incidentally on the site if they forage over adjacent areas. Suitable nesting habitat is absent from the site.
Tricolored blackbird (<i>Agelaius tricolor</i>)	BCC, CSC	Meadows, rangeland; nests in large emergent marshes, especially cattails.	Unlikely. Suitable habitat does not exist on the site.
Whimbrel (<i>Numenius phaeopus</i>)	BCC	Mudflats, salt marshes, beaches; breeds in tundra.	Unlikely. May occur on or near the site in winter.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	BCC, BEPA	Near seacoasts, large lakes, and rivers where fish are present.	Possible. Bald eagles may occur incidentally on the site if they forage over adjacent areas. They are unlikely to nest on the site.
Black oystercatcher (<i>Haematopus bachmani</i>)	BCC	Intertidal zone of rocky shorelines. Nests in pebble or scrape on the beach.	Present. Observed on site.
Bell's sparrow (<i>Amphispiza belli</i>)	BCC	Sagebrush, chaparral, dry foothills.	Possible. This species may occur incidentally on the site, or may nest in shrubs on or near the site.
Bryant's savannah sparrow (<i>Passerculus sandwichensis alaudinus</i>)	CSC	Coastal marsh and grassland. High salt marsh and adjacent uplands. Nest on or near the ground in herbaceous vegetation.	Possible. This species may occur incidentally on the site, or may nest on or near the site.

Species	Status	Habitat	Occurrence in the study area
Saltmarsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	CSC	Breeds in forested wetlands, brackish and freshwater marshes.	Possible. This species may occur on or near the site, or may nest in willow thickets on the site.
Mammal Species			
San Pablo vole (<i>Microtus californicus snpabloensis</i>)	CSC	Salt marshes adjacent to southeastern part of San Pablo bay.	Unlikely. Potential salt marsh habitat is marginally large enough.
Salt-marsh vagrant shrew (<i>Sorex vagrans halicoetes</i>)	CSC	High salt marsh; Salicornia.	Unlikely. Potential salt marsh habitat is marginally large enough.
Salt-marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	FE, CE, FP, IUCN EN	Found only in saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed saline emergent wetlands are preferred, while adjacent grasslands may also be used. Nests in grass and sedges, not burrows. Breeding occurs March - November.	Unlikely. Potential salt marsh habitat is marginally large enough.
Herptile Species			
California red-legged frog (<i>Rana draytonii</i>)	FT, CSC, IUCN VU	A pond frog that inhabits humid forests, woodlands, grasslands, and streamsides; however, frequents otherwise permanent sources of water. Breeds January-April and can be found in damp woods during non-breeding periods.	Unlikely. Suitable habitat for this species is present in the general vicinity. No permanent sources of water are found on the site, which is generally dry and faces southwest.

Species	Status	Habitat	Occurrence in the study area
Fish Species			
Central California coast steelhead (<i>Oncorhynchus mykiss</i>)	FT, AFS TH	Require cool freshwater for spawning and rearing sites. Adult runs occur during the winter, while the amount of time spent in fresh versus salt water varies considerably. Typically steelhead enter the streams and rivers between late December-April, while spawning occurs in late spring.	Absent. Does not occur on the site. May be present in near shore waters.
Delta smelt (<i>Hypomesus transpacificus</i>)	FT	Estuary of Sacramento River. Brackish and fresh water.	Absent. Habitat not present.
Green sturgeon (<i>Acipenser medirostris</i>)	FT	Estuary of Sacramento River. Brackish and marine water.	Absent. Habitat not present.
Tidewater goby (<i>Eucyclogobius newberryi</i>)	FE	Lagoons formed by streams running into the sea. The tidewater goby prefers salinities of less than 10 ppt.	Absent. Habitat not present.
Invertebrate Species			
Monarch butterfly (<i>Danaus plexippus</i>)	Sensitive species under Richmond General Plan	Distribution and reproduction dependent upon milkweed plant (<i>Asclepiadaceae sp.</i>). Species is a migrant of a population that spends its summers in the eastern Rocky Mountains and winters in California as far north as Monterey, CA, in eucalyptus trees.	Present. Observed on site.
Habitat			
Wetlands			Present. Wetlands were identified on the project site.
Native trees			Present. Numerous native tree species were observed within and adjacent to the project site.
Native grassland			Present. Native grassland is present on and in the vicinity of the project site.

Species	Status	Habitat	Occurrence in the study area
Critical Habitats			Absent. No designated Critical Habitats are located on site.

Sources: CNDDDB 2015, AES 2009, USFWS 2015, LSA 2011, Tetra Tech 1998, and CNPS 2010.

Present: Species observed on the sites at time of field surveys or during recent past.

Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.

Possible: Species not observed on the sites, but it could occur there from time to time.

Unlikely: Species not observed on the sites, and would not be expected to occur there except, perhaps, as a transient.

Absent: Species not observed on the sites, and precluded from occurring there because habitat requirements not met.

STATUS CODES

Federally Endangered	FE
Federally Threatened	FT
Federally Endangered (Proposed)	FPE
Federal Candidate	FC
Bald Eagle Protection Act	BEPA
California Endangered	CE
California Threatened	CT
California Rare	CR
California Protected	CP
California Species of Special Concern	CSC
California Watch List	WL
California Fully Protected	FP
USFWS Birds of Conservation Concern	BCC
California Native Plant Society Listing	CNPS
Plants Presumed Extinct in California	1A
Plants Rare, Threatened, or Endangered in California and elsewhere	1B
Plants Rare, Threatened, or Endangered in California, but more common elsewhere	2
Plants about which we need more information – a review list	3
Plants of limited distribution – a watch list	4

American Fisheries Society	AFS
Endangered	EN
Threatened	TH
Vulnerable	VU
The World Conservation Union	IUCN
Conservation Dependent	CD
Critically Endangered	CE
Data Deficient	DD
Endangered	EN
Least Concern	LC
Near Threatened	NT
Vulnerable	VU
Xerces Society: Red List	Xerces
Possibly Extinct	PE
Critically Imperiled	CI
Imperiled	IM
Vulnerable	VU
Data Deficient	DD

3.4 JURISDICTIONAL WATERS

Jurisdictional waters are defined by the laws that protect them, including the federal Clean Water Act (CWA) and the California Fish and Game Code, Sections 1601 through 1603 (Section 1600). The CWA regulates waters of the U.S., which typically includes rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Waters of the U.S. may also include lakes, ponds, reservoirs, and wetlands, if these waters have a significant nexus with a Traditional Navigable Water.

Creeks, rivers, lakes, and their associated riparian areas may be subject to regulation by the CDFW under Section 1600, and the California Regional Water Quality Control Board (RWQCB) may take jurisdiction over all waters of the state. Waters of the state are defined as all surface and groundwater within the state of California. San Pablo Bay and its associated wetlands are waters of the U.S., as are other wetlands located on the site.

4.0 POTENTIAL IMPACTS

4.0 POTENTIAL IMPACTS**4.1 LOCAL ORDINANCES AND REGULATIONS**

Local ordinances and regulations of importance include the City of Richmond General Plans (City of Richmond 1994 and 2011). These plans discuss trees and general habitat areas that should be protected. These include significant trees, native trees, heritage trees, oak woodlands, wetlands, marshlands, baylands, creek corridors, riparian areas, and habitats which are unique or rare. Existing oak, willow or California buckeye trees (*Quercus* spp., *Salix* spp., or *Aesculus californica*) and coyote bush shrubs (*Baccharis pilularis*) should be protected from all construction activities.

4.1.1 City of Richmond General Plan

The project will require compliance with any element of the City's 1994 and 2011 General Plans which protects sensitive natural resources (e.g., conservation, open space, etc.) (City of Richmond 1994 and 2011). These specific policies include:

City of Richmond 2011 General Plan

Policy CN1.1 Habitat and Biological Resources Protection and Restoration

- Natural habitat is essential to ensuring biodiversity and protecting sensitive biological resources. Protect these areas and work with the California Department of Fish and Game, the San Francisco Bay Regional Water Quality Control Board, the East Bay Regional Park District, and other regional agencies to identify areas for special protection and establish appropriate protection measures for these areas.
- Protect resources to maximize the efficacy of natural systems and encourage sustainable development practices and conservation measures to ensure a healthy natural environment.
- Protect wetlands from direct and indirect impacts of new and existing development and infrastructure. Ensure that direct and indirect impacts to wetland habitats are minimized by environmentally sensitive project siting and design.
- Protect marshlands and baylands to ensure they are not polluted or damaged from bay filling and dredging.
- Protect and restore creek corridors and riparian areas to ensure they function as healthy wildlife habitat and biological areas.
- Protect and restore creek corridors and riparian areas by restoring riparian habitat with appropriate vegetation and channel design; removing culverts and hardened channels where appropriate; improving creek access; avoiding future culverting or channelization of creeks; and ensuring appropriate and ongoing maintenance.
- At a minimum, require mitigation of impacts to sensitive species ensuring that a project does not contribute to the decline of the affected species populations in the region. Identify mitigations in coordination with the U.S. Fish and Wildlife service, the California Department of Fish and Game, and other regulatory agencies.

4.0 POTENTIAL IMPACTS

Policy CN1.2 Local Native Plant Species

- Promote the use of locally propagated native plant and tree species and remove and control the spread of invasive exotic plant species. Promote and protect native plant species in natural areas as well as in public landscaping of parks, schools, medians, and planter strips. Work closely with landowners, landscapers, and nurseries to remove and prevent the spread of invasive exotic plant species.

Policy CN1.3 Urban Creek Restoration

- (1) Encourage the restoration of urban creeks and coordinate with property owners and local interest groups in the restoration efforts.
- (2) Daylight creeks that are currently in culverts or hardened channels where feasible in new and redevelopment projects.
- (3) Establish performance standards for creek corridors that accomplish the following:
 - Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridors for wildlife habitat linkage, protection from runoff, and other impacts of adjacent urban uses;
 - Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts; and
 - Discourage the use of herbicides and provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses and access for channel maintenance and flood control.
 - In areas of creek restoration, implement design specifications and modeled flow conditions to ensure that creek channel configuration and vegetation would withstand storm flows, that conveyance capacity is not impeded, and that the system is stabilized following construction. Design shall be conducted by a certified professional in stream restoration and fluvial geomorphology processes.
 - Implement construction best management practices to reduce erosion potential including, but not limited to, construction scheduled for dry season work; high flow bypass until the system is stabilized; temporary and permanent erosion and sediment controls; and prevention of run-off during construction.
 - Implement monitoring, inspection, and maintenance programs and plans to ensure long-term continued function.

Policy CN6.2 Protection and Expansion of Tree Resources

- Protect and expand tree resources within Richmond. Protect native trees, heritage trees and oak woodlands; expand and maintain street tree planning; use zoning and building requirements to ensure that trees are included in new developments; and engage the community to undertake planting campaigns. Furthermore, promote trees as economic and environmental resources for the use, education, and enjoyment of current and future generations.

4.1.2 1994 City of Richmond General Plan

Policy OSC-A.2 Preserve unique plant communities and wildlife habitats.

- Particularly good examples of typical area habitats, which can be used for classroom study purposes. For example, the mixed evergreen woodland in Wildcat Canyon, buffer zone transitional upland areas adjacent to tidelands at Pt. Pinole, and the marsh areas at the mouths of San Pablo and Wildcat Creeks.

4.0 POTENTIAL IMPACTS

- Habitats which are unique or rare in the Planning Area, such as the native grassland community on Brooks Island.
- Minimize removal of vegetation in all new developments. In particular, the cutting of mature native woodland trees, especially on unstable slopes and in creek beds, should be controlled.
- Encourage planting of new vegetation, especially of native plants, where such plantings would help to define important areas and features, such as public buildings, parks, creeks, and coastline.

Policy OSC-I.1 Flood and Erosion Control.

- Prohibit development that is potentially destructive to the natural qualities of the creeks and is not necessary for flood control.
- Adopt flood control systems which maintain the natural qualities of the creeks as much as possible. (See also Community Facilities Element Policy CF-H.7)
- Preserve stream beds, water courses and channels in their natural state except where needed for flood and erosion control. (See also Community Facilities Element Policy CF-H.7)
- Control soil erosion to prevent flooding and destruction of natural waterways, to maintain water quality, to reduce public costs for flood control works, and to prevent damage to construction sites. (See also Community Facilities Element)
- Prevent creek bank erosion, preserve wildlife habitat, protect the scenic quality of the creeks, and secure public access to the natural waterways. See Watersheds & Surface Waterways Map, Technical Appendix for the Richmond General Plan. (See also Community Facilities Element Policy CF-H.7)
- City will require developers of new projects on upstream portions of the San Pablo and Wildcat Creek watersheds to include designs to reduce the volume of surface runoff. Such design should minimize removal of native woodlands, maximize vegetated open space, and retard peak runoff of surface and subsurface drainage.

Urban Forest Management Plan

- This plan provides design guidelines for street trees including tree selection lists for Richmond and nursery standards relating to trees being true to type, health of the trees, compliance with federal and state laws, root-ball moisture, tree crown, roots, site preparation, planting water reservoir, mulching, and watering.

4.2 SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

The San Francisco Bay Conservation and Development Commission (BCDC) has authority over projects that may affect the environment and habitats in and near San Francisco Bay. Proposed projects must comply with state law, including case law, and comply with the BCDC policies and plans. These policies regulate land use activities within 100 feet of the bay shoreline and strictly control fill for non-water dependent uses. Foremost among these is the San Francisco Bay Plan (SFBCDC, 2008).

The following policies are excerpted from the Bay Plan:

Within priority use areas, such as shorelines designated for ports, other water dependent uses, airports, wildlife refuges and water based recreation, the BCDC can only authorize those uses for which the shoreline has been designated or an interim use that will not preclude the future use of the site as designated. Maximum feasible public access to the shoreline must be provided as part of the project. The Bay Plan designation for this area is *Waterfront Park, Beach*.

4.0 POTENTIAL IMPACTS

“San Pablo Peninsula - Significant potential for creating a permanently protected open space and park facility. Limited commercial development can be compatible with park.” (SFBCDC, 2008).

“Former Naval Fuel Depot Point Molate - Develop for park use. Landward of Western Drive should be developed consistent with recreation policy 4-b.(Policy 4-b pertains to historic buildings). Provide trail system linking shoreline park areas and vista points in hillside open space areas. Provide public access to historical district with interpretation of this resource. The Point Molate Pier should be re-used for water-oriented recreation and incidental commercial recreation. Encourage water-oriented recreation, including mooring facilities for transient recreational boats, excursion craft and small water craft. Protect existing eelgrass beds”. (SFBCDC, 2008).

Public Access Policies

“3. Public access to some natural areas should be provided to permit study and enjoyment of these areas. However, some wildlife are sensitive to human intrusion. For this reason, projects in such areas should be carefully evaluated in consultation with appropriate agencies to determine the appropriate location and type of access to be provided.

4. Public access should be sited, designed and managed to prevent significant adverse effects on wildlife. To the extent necessary to understand the potential effects of public access on wildlife, information on the species and habitats of a proposed project site should be provided, and the likely human use of the access area analyzed. In determining the potential for significant adverse effects (such as impacts on endangered species, impacts on breeding and foraging areas, or fragmentation of wildlife corridors), site specific information provided by the project applicant, the best available scientific evidence, and expert advice should be used. In addition, the determination of significant adverse effects may also be considered within a regional context. Siting, design and management strategies should be employed to avoid or minimize adverse effects on wildlife, informed by the advisory principles in the Public Access Design Guidelines. If significant adverse effects cannot be avoided or reduced to a level below significance through siting, design and management strategies, then in lieu public access should be provided, consistent with the project and providing public access benefits equivalent to those that would have been achieved from on-site access. Where appropriate, effects of public access on wildlife should be monitored over time to determine whether revisions of management strategies are needed.” (SFBCDC, 2008).

4.3 RELEVANT FEDERAL AND STATE LAWS

4.3.1 *California Environmental Quality Act*

The project will require compliance with CEQA and EBRPD will serve as the lead agency. As such, the District will conduct an environmental review, which will include a review of all studies conducted in compliance with CEQA, and the creation and adoption of appropriate mitigation and monitoring measures.

4.3.2 *Threatened and Endangered Species*

State and federal “endangered species” legislation has provided the CDFW and the USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing,

4.0 POTENTIAL IMPACTS

state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as “special status species.”

Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the “take” of a listed species. “Take” is defined by the state of California as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (California Fish and Game Code, Section 86). “Take” is more broadly defined by the federal Endangered Species Act to include “harm” (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

4.3.3 *Migratory Birds*

State and federal laws also protect most birds. The Federal Migratory Bird Treaty Act (16 U.S.C., sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

4.3.4 *Birds of Prey*

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, which 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.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the CDFW.

4.3.5 *Wetlands and Other Jurisdictional Waters*

Natural drainage channels and adjacent wetlands may be considered “Waters of the United States” (hereafter referred to as “jurisdictional waters”) subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE). The extent of jurisdiction has been defined in the Code of Federal Regulations but has also been subject to interpretation of the federal courts. Jurisdictional waters generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce;
- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters identified in paragraphs (a)(1)-(4) (i.e. the bulleted items above).

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The USACE regulates the filling or grading of such waters under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by “ordinary high water marks” on opposing channel banks. Wetlands are habitats with soils that are intermittently or permanently saturated, or inundated. The resulting anaerobic conditions select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils saturated intermittently or permanently by water), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987).

All activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards. The filling of isolated wetlands, over which the USACE has disclaimed jurisdiction under the SWANCC decision, is regulated by the RWQCB. It is unlawful to fill isolated wetlands without filing a Notice of Intent with the RWQCB. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the Construction General Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

The California Department of Fish and Wildlife has jurisdiction over the bed and bank of natural drainages according to provisions of Section 1601 and 1602 of the California Fish and Game Code (2008b). Activities that would disturb these drainages are regulated by the CDFW via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in question.

4.4 PROJECT SPECIFIC IMPACTS

The San Francisco Bay Trail at Point Molate project has the potential to cause direct impacts to biological resources during construction and indirect impacts to biological resources during trail operation. The proposed project will include the construction of a new trail located in the footprint of the existing railroad alignment to minimize grading by using land that has already been developed. This will require grading, vegetation removal, soils disturbance, and paving. These activities cause noise, dust, vibration, and the potential for impacts to native plant communities and to water quality. Wildlife species may be disturbed during these activities and their habitats may be impacted.

During project operation, members of the public will use the trail on foot and bicycle. These activities will create additional noise and other disturbance that has the potential to impact sensitive wildlife species that may be located in close proximity to the trail. In particular, birds may be nesting in willow shrubs or on the ground immediately adjacent to the trail. Uncontrolled litter and dogs also have the potential for detrimental impacts to wildlife. The applicant proposes to avoid and minimize the potential for these impacts by implementing specific mitigation measures.

4.4.1 Impacts to Sensitive Habitats

Sensitive habitats exist within the study area as shown in **Figures 3A – 3E**. These include native grasslands, high salt marsh, wetlands, and northern coastal bluff scrub and the flora that are found in these communities.

4.0 POTENTIAL IMPACTS

To the extent practicable, direct impacts to these sensitive habitats should be minimized and avoided. The primary strategy for achieving this is to place the trail footprint and construction staging areas in previously impacted areas, largely paved roads or abandoned rail beds.

During trail operation, members of the public will be discouraged from leaving the trail with signage that indicates the sensitivity of the habitats and wildlife found in the vicinity. This will discourage the development of “social trails”. In addition, the vicinity has steep, unstable slopes and abandoned infrastructure such as collapsing piers that are not safe for public access. Fencing will be constructed on Chevron's property, further deterring trail users from leaving the footprint of the trail.

Because of the potential to impact wildlife and water quality, dogs on the trail will be required to be on leashes and their owners to clean up after them. Additional public facilities such as parking, handicap access restrooms, picnic areas, and litter barrels will be available at the Point Molate Beach Park which is located along this trail route. The park has beach access and additional areas for walking dogs and other traditional recreational activities. Concentrating the human impacts in the park will reduce the potential for disturbance to wildlife in more sensitive habitats along the trail, including nesting birds and overwintering shorebirds that utilize these habitats.

4.4.2 *Impacts to Habitats for Rare and Endangered and Other Special Status Species*

Flora. Several special status plant species have the potential to occur within the study area (**Table 2**). These include the marsh gumplant and Suisun marsh aster. These plant communities and species are uncommon in Contra Costa County and impacts to these species should be avoided and these communities protected where possible.

The potential for these special status plant species to occur on site prior to construction activities is very low. However, pre-construction surveys are recommended. These surveys will focus on the area within and in the vicinity of proposed ground disturbing activities and should occur during the appropriate blooming season. The purpose of these surveys is to determine the presence or absence of the species on site prior to the time of construction. Should one or more populations of special status plant species be detected within the project footprint, then specific mitigation measures should be implemented to offset impacts to these plant populations. If the project cannot be redesigned to avoid impacts to the identified species, then compensation measures could include development of restoration plans for these species.

Any specific restoration plans or mitigation measures would need to be approved by the lead agency prior to the start of project construction and, because disturbances and impacts to the site could be permanent, should occur in the immediate vicinity of the identified population(s). The objective of specific mitigation measures would be to replace the special status plants lost during construction activities; incorporate avoidance and minimization measures to protect native trees, coyote brush, and California buckeye; and remove invasive plants on the site (i.e. French broom and pampas grass). Mitigation measures for anticipated impacts should be consistent with local policies and ordinances, and any other federal or state regulations protecting these plant communities.

Fauna. Several of the special status or sensitive animal species that occur, or once occurred, regionally, have the potential to occur at the site (**Table 2**). These include nesting birds, foraging birds, and monarch butterfly. These species may either occur on the site incidental to

4.0 POTENTIAL IMPACTS

home range and migratory movements, thus using the site infrequently, or may forage on the site year-round or during migration.

The construction of the trail should avoid removing most trees and shrubs, while protecting special status species habitat. Project buildout should result in minimal loss of foraging, nesting, and/or roosting habitat. Appropriate best management practices should be employed in order to protect these resources.

Although an osprey nest was observed on the site, a conclusive investigation of nesting birds was not conducted. Trees, shrubs, and other habitats in the project vicinity may provide suitable nesting habitat for migratory birds, including raptors. If a migratory bird, regardless of its federal or state status, were to nest near the site prior to or during proposed construction activities, such activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of special-status or non-special-status migratory birds, including tree-nesting raptors, or result in mortality of individual birds constitute a violation of state and federal laws (see **Section 4.3.4**).

Monarch butterflies occur on the site from time to time. Impacts to trees and milkweed should be avoided where feasible.

Construction of the trail will require a 1600 SAA permit from the CDFW, permit review by the BCDC, and most likely a Section 7 Consultation with the USFWS. These agencies will require mitigation and monitoring measures to reduce impacts to sensitive species and their habitats. These requirements are likely to include measures such as a trained biological monitor being on site during construction of the trail near sensitive habitats in addition to pre-construction surveys.

Waters of the U.S. The project requires the construction of a trail within a railroad corridor that contains wetlands. These sections of the trail will be constructed on a boardwalk and fill within WOUS will be minimized to the amount required to construct the trail. In addition, a seep located along the trail will be filled. No additional loss of WOUS is anticipated, and impacts will be further rectified by daylighting the culvert that currently exists in the palustrine scrub-shrub wetland shown in Habitat Map **Figure 3B**.

Any impacts to WOUS will require permits under federal CWA Sections 404 and 401. Mitigation measures required by those permits will likely be implemented as part of the project and could include temporary/construction BMPs or erosion & sediment controls. The project applicant will not be required to comply with the new CA NPDES Construction General Permit for this project. However, water quality BMPs would also be required as part of the compliance with the federal CWA Section 401 certification. These water quality BMPs should minimize water quality impacts during construction of the trail.

4.5 CONCLUSION

The Point Molate Trail project requires construction along San Pablo Bay in the vicinity of sensitive habitats, including wetlands. Several special status species have the potential to use these habitats, and the potential exists to adversely affect these species and their habitats. However, the project has been designed to avoid sensitive species with timing and pre-construction surveys, implement BMPs for avoiding impacts to water quality, and to restore areas where vegetation is unavoidably impacted. Incorporation of specific mitigation measures should allow this public infrastructure to be constructed and utilized, while avoiding significant impacts to the natural resources of the site.

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APPENDIX A
PHOTOGRAPHS



Trail corridor near south end.



Trail corridor with osprey nest.



Trail corridor with osprey nest.



Trail corridor in roadway.



Trail corridor near salt marsh.



Seasonal wetland in trail corridor.



Trail corridor.



Scrub shrub wetland.



Railroad bed at Point Molate Beach Park.



Point Molate Beach Park.



Trail corridor north of park.