3.3 BIOLOGICAL RESOURCES

3.3.1 INTRODUCTION

This section identifies existing biological resources (including sensitive species and habitats) at and in the vicinity of the Sycamore Crossing and Hill Town sites, analyzes the potential for implementation of the proposed Updated 2009 Redevelopment Plan to affect those resources, and proposes mitigation measures to reduce those impacts that are determined to be significant.

A biological resource assessment was prepared in December 2008 by SWCA Environmental Consultants (SWCA) and is included as **Appendix 3.3** to this environmental impact report (EIR)**.** Information presented in the discussion and analysis that follows was drawn from a reconnaissance-level field survey of both sites conducted on January 15, 2008. The survey method involved walking both sites in their entirety to observe all on-site habitats. SWCA also performed an informal assessment for presence of "waters of the United States," wetlands, and other biologically sensitive habitats. Prior to the site surveys, SWCA collected and reviewed information from several sources concerning the known distribution of threatened, endangered, or other special-status species that may occur in the area. Sources included

- existing biological reports and wetland delineations for the project area and vicinity;
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants database for the Mare Island 7.5-minute quadrangle;
- the United States Geological Survey Mare Island 7.5-minute quadrangle, provided by the Sacramento office of the United State Fish and Wildlife Service (USFWS), correlated with a list of federally threatened and endangered species; and
- a 5-mile-radius spatial query of the California Natural Diversity Database (CNDD).

No public or agency scoping comments were received on the Notice of Preparation for this EIR.

3.3.2 ENVIRONMENTAL SETTING

Both properties within the proposed project area are dominated by non-native grasses and forbs (woody shrubs), growing in open, disturbed sites with few trees (see **Figure 3.3-1, Habitat Types**). The Hill Town site contains detention ponds and an associated small wetland. The west branch of Refugio Creek on the Sycamore Crossing site supports some riparian (riverbank and aquatic) vegetation and a small grove of non-native trees. Vegetation and/or habitat types present on the two sites include non-native grasslands (both sites), developed and ruderal areas (both sites), disturbed scrub (both sites), detainment ponds (Hill Town only), eucalyptus groves (both sites), intermittent stream riparian habitat (Sycamore Crossing

only), and freshwater emergent wetland (Hill Town only). Aerial photographs of the project sites are shown in **Section 2.0**, **Project Description,** of this EIR (**Figures 2.0-3, Aerial Photograph of the Sycamore Crossing Site,** and **2.0-4, Aerial Photograph of the Hill Town Site**).

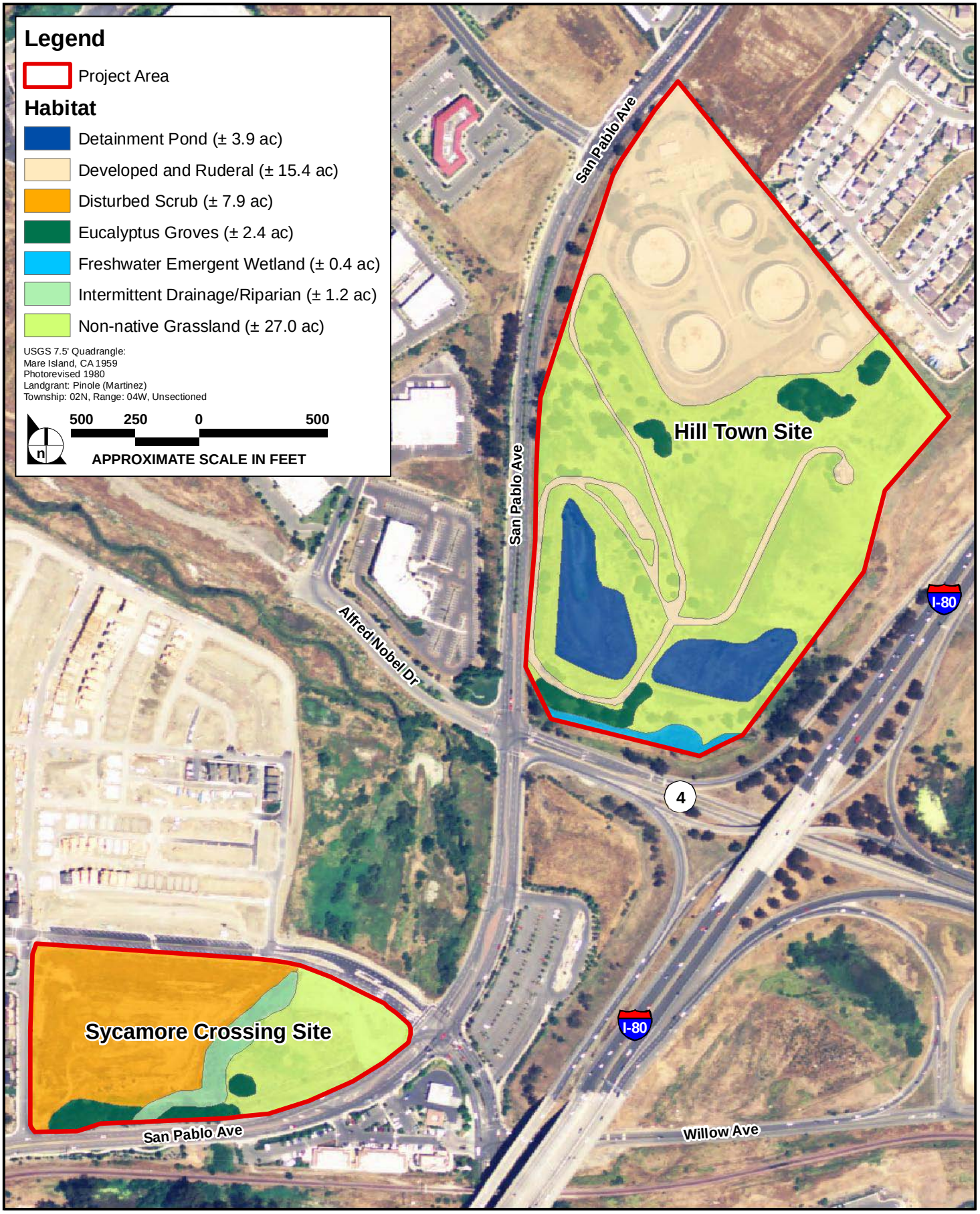
3.3.2.1 Sycamore Crossing Site

The approximately 14-acre Sycamore Crossing site is characterized by gently sloping, open, disturbed ground with ruderal (weedy, non-native) vegetation and scattered native and non-native trees and shrubs. This property was used between 1881 and 1977 as an explosives and fertilizer manufacture, as part of the California (Hercules) Powder Works facility, and was subject to intensive remediation supervised by the California Department of Toxic Substances Control from 1985 to 1997. Remnant foundations of the industrial structures remain on the property near the southern boundary of the site fronting San Pablo Avenue.

The west branch of Refugio Creek bisects the property, flowing southwest to northeast. The portion of the site west of the creek was used as a stockpile composed of fill material generated from the grading of surrounding parcels and intended for use in the development of the Sycamore Crossing site and other development projects within the City. The terrain east of the creek undulates gently with no distinguishing landforms. Vegetation on site consists primarily of non-native grassland, with riparian vegetation along the creek and a grove of eucalyptus trees along the southern perimeter of the property.

3.3.2.2 Hill Town Site

The approximately 44-acre Hill Town site is dominated by a large hill, 240 feet above mean sea level (msl), in the northern portion of the property. The hill slopes downward to the south and southwest, terminating at the southern property boundary at approximately 33 feet above msl. The hillside was used for many years as a Pacific Gas and Electric (PG&E) "tank farm" that included oil storage tanks, heaters, pipelines, and related industrial fixtures. As described in **Section 2.0, Project Description**, most of these structures have been removed from the site. The southern part of the site is comprised of a stormwater treatment facility including two large detention ponds and a cellular telephone tower. Vegetation on the undeveloped portions of the site consists primarily of non-native grassland with scattered trees. A small patch of wetland vegetation, which appears to be associated with the stormwater treatment facility, is located near the southern perimeter of the site.



SOURCE: SWCA Environmental Consultants – December 2008

FIGURE **3.3-1**

Habitat Types

359-011•01/09

3.3.2.3 Vegetation and Habitat Types for the Project Sites

Non-Native Grassland

Non-native grassland comprises the majority of the Hill Town site and the eastern portion of the Sycamore Crossing site, totaling 27 acres between the two sites. Non-native grassland typically occurs on disturbed sites where the original vegetation has been removed by grading or other disturbance, and opportunistic grasses and forbs, mostly non-native, have become established. This habitat on both sites is characterized by plant species including garden vetch (*Vicia sativa*), cutleaf geranium (*Geranium dissectum*), curly dock (*Rumex crispus*), plantain (*Plantago major*), white clover (*Trifolium repens*), ripgut brome (*Bromus diandrus*) and Italian rye grass (*Lolium multiflorum*). The grassland habitat within the Hill Town site also contains scattered trees of native coast live oak (*Quercus agrifolia*) and non-native Tasmanian blue gum or eucalyptus (*Eucalyptus globulus*). However, although the oak trees are a native species, they appear to have been planted from nursery stock and exhibit various stakes and structures to protect them from predation. Individual eucalyptus trees may have been planted on the property for windbreaks, but this species tends to propagate freely on disturbed sites and many younger trees appear to be volunteers. Small groups of trees occur mainly in the western and southern portions of the Hill Town site.

Although not native, these grasslands described above may still provide habitat value for a variety of birds and small mammals. Grasses and forbs provide browse for mule deer and foraging habitat for the California ground squirrel (*Spermophilus beecheyi*). Scattered trees in grasslands may provide seasonal nesting habitat and cover for a variety of migratory birds. Resident birds include northern flicker (*Colaptes auratus*), California towhee (*Pipilo crissalis eremophilus*), and song sparrow (*Melospiza melodia*), all of which forage on the ground for insects or seeds. Raptor (bird of prey) species such as northern harrier (*Circus cyaneus*) and white-tailed kite (*Elanus leucurus*) may also forage within grasslands in the project area, but are unlikely to nest.

Developed and Ruderal Areas

Developed and ruderal areas total approximately 15 acres for both project sites combined (see **Figure 3.3-1**). "Developed area," while not strictly a "vegetation type," is a category used to describe land that has been or is presently developed by human endeavor, and where natural processes of vegetation and habitat establishment, soil building, deposition, erosion, stream processes, etc., have been interrupted. Ruderal areas, similar to developed areas in origin, are less "developed," but have been affected over time by human-induced activities, such as cattle-grazing or agriculture, and are characterized by sparse, weedy, typically non-native vegetation. Both provide minimal wildlife habitat value. The birds,

mammals, and reptiles that forage within this habitat type are generally common species that are accustomed to human activities. Developed and ruderal lands typically do not provide good nesting sites, although swallows or bats may use tall structures for nesting and roosting. Open areas adjacent to such structures are suitable for in-flight foraging, increasing the likelihood that these species could nest or roost within this habitat.

Developed areas on the Hill Town site include the oil storage tank area, pipes, and concrete-paved surfaces; ruderal vegetation occupies roadsides and gravel/earth piles. Little vegetation other than remnant non-native, ornamental landscaping species such as cotoneaster (*Cotoneaster* sp.) and pampas grass (*Cortaderia* sp.) were observed during SWCA's site reconnaissance. Some native coyote brush (*Baccharis pilularis*) occurs in small openings and cracks in the concrete paving. Small weedy non-natives, such as burhead (*Echinodorus berteroi*) and dandelion (*Taraxacum officinale*) were observed in the ruderal areas. Bird species observed during the site reconnaissance include western scrub jay (*Aphelocoma california*), American crow (*Corvus brachyrynchos*), black phoebe (*Sayornis nigricans*), and mourning dove (*Zenaida macroura*).

Disturbed Scrub

Disturbed scrub comprises approximately 8 acres on the western portion of the Sycamore Crossing site (see **Figure 3.3-1**). This vegetation type is intermediate between developed/ruderal vegetation and vegetation types that are relatively undisturbed by human activity. It may contain both non-native and native plants. Vegetative cover is generally greater than the ruderal category, containing woody shrubs, non-woody perennial and annual plant material. Habitat value is somewhat greater than that exhibited by ruderal and non-native grasslands; vegetation is generally taller (generally up to 3 feet) and denser, providing year-round cover for reptiles, birds, and small mammals. On the Sycamore Crossing site, the dominant shrub species is coyote brush, which grows throughout the habitat in scattered patches. Individual shrubs are small; recent site grading may have removed top growth and stimulated new shoot growth from pre-existing root mass. Among the coyote brush are non-native grasses and forbs, including ripgut brome, pampas grass, yarrow (*Achillea millefolium*), and Canada thistle (*Cirsium arvense*).

Fauna observed during the site reconnaissance include California ground squirrel, California towhee, bushtit (*Psaltiparus minimus*), golden-crowned kinglet (*Regulus satrapa*), Anna's hummingbird (*Calypte anna*), and dark-eyed junco (*Junco hyemalis*). Small mammals (mice, voles, western fence lizard [*Sceloporus occidentalis*]) are also likely present. Larger mammal species are likely absent due to surrounding urban development. The Sycamore Crossing site is bordered on all sides by roads and wildlife dispersal to and from this habitat is likely limited.

Detainment Ponds

Detainment ponds, designed to temporarily hold site water runoff, were constructed on the southern end of the Hill Town site and total approximately 4 acres (see **Figure 3.3-1**). "Detainment pond," like the "developed area" habitat, is not a formal habitat classification, but where water inundates a slow-draining low spot wetland habitat often forms. Birds and animals, being attracted to the impounded water, can deposit seeds, spores, and other plant parts as well as invertebrate animals or their eggs from nearby wetland areas. Seeds may also be transported to the site simply by the wind. Such human-made ponds can provide important wildlife habitat for a variety of species including algae and pondweeds pioneer in the impounded water and produce substantial organic matter that feeds small crustaceans and snails. Insect species also thrive in still water, and in turn provide food for amphibians and birds. Over time, given enough water, plants such as cattail (*Typha* sp.) and rushes (*Juncus* sp.) grow at the pond margins, providing cover for waterfowl nesting and foraging.

The detention ponds were originally used in the operation of the industrial facility and were likely periodically filled and drained for years. At the time of SWCA survey, only the pond contained water. Vegetation consisted of cattails and grasses; animal species observed during the survey were the Pacific tree frog (*Hyla regilla*); and three bird species: bufflehead or common goldeneye (*Bucephala albeola*), mallard (*Anas platyrhynchos*), and black phoebe (*Sayornis nigricans).*

Eucalyptus Groves

Eucalyptus groves are scattered through the Hill Town site and the southern edge of the Sycamore Crossing site, occupying a total of approximately 2 acres between the two sites (see **Figure 3.3-1**). Eucalyptus is a non-native tree of Australian origin that was initially imported into California for lumber. Eucalyptus forms a dense, closed canopy, shading out many other plant species. Moreover, eucalyptus bark and leaf litter exude chemicals[1] that suppress competing plant growth in their vicinity. Eucalyptus groves provide some wildlife habitat, including roosting habitat for raptors, such as the red-shouldered hawk (*Buteo lineatus*), and foraging opportunities for nectar and insect-feeding birds, such as Anna's hummingbird (*Calypte anna*) and yellow-rumped warbler (*Dendroica coronata*). Also, the monarch butterfly (*Danaus plexippus*) uses eucalyptus for cover and thermal regulation during the winter months. However, generally there are more "nuisance"—non-native—species in Eucalyptus groves (e.g., European starlings and house sparrows) than in native coastal woodlands, notably coast live oak woodland.

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1 "Allelopathy" is the general term describing the process whereby plants suppress competing growth by secreting growth-inhibiting chemicals in their leaves or roots, which leach or drift in vapor form from the plant and deposit on nearby soil surfaces.

Intermittent Stream and Riparian Habitat

A northeast-trending intermittent tributary of Refugio Creek bisects the Sycamore Crossing site and supports approximately 1 acre of on-site riparian habitat (see **Figure 3.3-1**). Both perennial and intermittent streams and the vegetation that grows along stream corridors provide shelter, foraging, and breeding sites for various invertebrates, amphibians, small mammals, and birds. Typical vegetation includes California Sycamore (*Platanus racemosa*), various willow species (*Salix* spp.), mule fat (*Baccharis viminea*), and cattail depending on the degree of soil moisture present in the soil. Animals like the Pacific tree frog (*Pseudacris regilla)* may hatch and grow in isolated pools and move away as the habitat dries in summer. Stream corridors may aid in small-scale wildlife movement and dispersal through the urban landscape. Notably, intermittent streams may be considered waters of the United States and fall under the jurisdiction of the United States Army Corps of Engineers (USACE) and may qualify as "waters of the State" that fall under the jurisdiction of the California Department of Fish and Game (CDFG).

On the Sycamore Crossing site, the intermittent stream corridor supports a narrow band of vegetation, including willows and Himalayan blackberry (*Rubus discolor*), in the northerly section. The southern section appears to have been channelized into a ditch and is bordered by a fence and eucalyptus trees. SWCA did not note any riparian habitat-associated animal species within the stream corridor at the time of the site reconnaissance.

Freshwater Emergent Wetland

A seasonal swale that drains into a culvert, crosses San Pablo Avenue, and connects with Refugio Creek (see **Figure 3.3-1**) forms approximately 0.4 acre of freshwater emergent wetland at the extreme southern edge of the Hill Town site. This habitat forms where nearly permanent freshwater is present, and where soils remain saturated through the year. Freshwater emergent wetlands are highly productive and important wildlife habitat. Plants adapted to wetlands (e.g., cattails, rushes, sedges) grow with their roots in saturated, low-oxygen soils and "emerge" from the water, forming a dense mass of vegetation. A great variety of invertebrates and amphibians may spend their entire life cycle in and around freshwater wetlands. The Pacific tree frog may use this habitat for cover, feeding, and breeding habitat; mammals and songbirds also use wetlands for cover and nesting.

The wetland on the Hill Town site contains dense emergent vegetation including cattails, spikerush (*Eleocharis* sp.), and bulrush (*Scirpus* sp.), indicating that water is present throughout the year. The wetland fringe also supports a small stand of Arroyo Willow. However, the swale likely does not provide significant habitat value because of its small size, nor substantial wildlife corridor opportunities because various barriers, such as Interstate 80 (I-80), and John Muir Parkway, and culverts, interrupt what may

have once been continuous cover. Nonetheless, the USACE evaluated the wetland in 2005 and advised via a letter that these wetlands are likely jurisdictional, requiring a permit if the project proponent anticipated discharging fill material into them. (Hicks 2006) The letter also notifies concerned parties that the jurisdictional determination expires in five years (December 16, 2011), at which time the USACE must re-evaluate the site if development has not proceeded.

3.3.2.4 Special-Status Resources

For the purposes of this EIR, "special status" is defined to be species that are of management concern to state and federal natural resources agencies and include those species that are

- listed as endangered, threatened, proposed, or candidate for listing under the federal Endangered Species Act (ESA);
- listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act (CESA) of 1970;
- designated as endangered or rare, pursuant to the *California Fish and Game Code* (Section 1901);
- designated as fully protected, pursuant to *California Fish and Game Code* (Sections 3511, 4700, or 5050);
- designated as a species of concern by CDFG;
- plants included on the CNPS Lists 1 or 2. These species are included because the CNPS is an authority recognized by the CDFG on the status of rare plant species in California, and because the criteria for placement on List 1 or List 2 are similar to criteria that CDFG and USFWS use for species considered as candidates for listing or that are already listed as threatened and endangered;
- plants listed as rare under the California Native Plan Protection Act;
- riparian habitat or other natural communities considered sensitive or regulated by the CDFG; and/or
- wetlands or other aquatic habitats under the jurisdiction of the USACE.

Sensitive Habitats

The CNDDB identified two sensitive habitats, the Northern coastal salt marsh and the Northern Maritime chaparral, within a 5-mile radius of the project sites. However, neither habitat was identified within the project site boundaries of either site.

An approximately 0.4-acre wetland and approximately 1-acre intermittent drainage with riparian vegetation exists within the project sites. These habitats are considered sensitive communities by the CDFG. Additionally, these communities are considered "areas that could provide habitat for sensitive species" by the *City of Hercules General Plan* Open Space and Conservation Element. The wetland on the

Hill Town site has been previously determined to be jurisdictional water of the US by the USACE under Section 404 of the Clean Water Act (CWA). Two detainment ponds on the Hill Town project site were determined to be non-jurisdictional. However, subsequent regulatory guidance pursuant to the Supreme Court decision, *Rapanos v. United States*, 128 US 2208 (2006), may alter the jurisdictional status of these features and consultation with the USACE may be necessary.

The intermittent drainage within the Sycamore Crossing site would likely be considered waters of the US and fall under jurisdiction of the USACE under Section 404 of the CWA. A formal jurisdictional determination and coordination with the USACE would be necessary to confirm the jurisdictional status of this water body. If the USACE does not assert its jurisdiction, the drainage may also be considered "waters of the State" under *Fish and Game Code* Section 1600 and would fall under the jurisdiction of the CDFG.

Special Status Species

SWCA identified 46 special-status species as potentially occurring in the project area through literature and database searches. The database search and field survey revealed no special-status species on the project sites. However, because suitable habitat is present, and based on known occurrences in the region, SWCA concluded that three special-status plants and five special-status wildlife species may occur within the project sites, including one invertebrate, three birds, and one mammal. **Table 3.3-1, Special-Status Species Known to Occur in Project Area,** lists all special-status plant and wildlife species with known occurrences or habitat in the vicinity of the project sites. The table describes species' typical habitat requirements and legal status and evaluates the potential for occurrence.

Table 3.3-1
Special-Status Species Known to Occur in Project Area

Species	Status *		General Habitat Requirements	Potential to Occur in Project Area
	Federal (USFWS)	State, CNPS, Other		
Plants				
Amsinckia lunaris bent-flowered fiddleneck	-	1B.2	Open woodlands, coastal bluff scrub, Native valley and foothill grasslands.	May occur in grassland habitat throughout the project areas.
Atriplex joaquiniana San Joaquin spearscale	-	1B.2	Chenopod scrub, alkali meadow, valley and foothill grassland within the vicinity of alkali wetlands	May occur in alkali wetlands.

Species	Status * Federal (USFWS)	State, CNPS, Other	General Habitat Requirements	Potential to Occur in Project Area
Blepharizonia plumosa Big tarplant	-	1B.1	Dry hills and plains in annual grassland.	May occur in valley and foothill grassland.
Calochortus pulchellus Mt. Diablo fairy-lantern	-	1B.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland.	May occur on wooded and brushy slopes.
Centromadia parryi Congdon's tarplant	-	1B.2	Valley and foothill grassland that contains alkaline soils.	May occur in valley and foothill grassland.
Erodium macrophyllum Round-leaved filaree	-	1B.1	Cismontane woodland, valley and foothill grassland with clay soils.	May occur in cismontane woodland, valley and foothill grassland.
Fritillaria liliacea fragrant fritillary	-	1B.2	Coastal scrub, Valley and Foothill grassland, coastal prairies.	May occur in grassland habitat throughout the project areas.
Helianthella castanea Diablo helianthella	-	1B.2	Open grassy sites in coastal scrub and riparian woodland.	May occur in grassland habitat throughout the project areas.
Lasthenia conjugens Contra Costa goldfields	FE	1B.1	Vernal pools within open grassy areas in woodlands and valley grasslands.	May occur in vernal pools in open grasslands.
Lathyrus jepsonii var. *jepsonii* Delta tule pea	-	1B.2	Coastal freshwater and brackish marshes and estuaries.	May occur in freshwater marshes.
Silene verecunda ssp. *verecunda* San Francisco campion	-	1B.2	Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, coastal prairie.	May occur in open grassland or brushy slopes.
Stebbinsoseris decipiens Santa Cruz microseris	-	1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, and coastal scrub.	May occur in wooded and brushy slopes.

Species	Status * Federal (USFWS)	State, CNPS, Other	General Habitat Requirements	Potential to Occur in Project Area
Trifolium amoenum Showy Indian clover	FE	1B.1	Valley and foothill grassland	May occur in valley and foothill grassland.
Triphysaria floribunda San Francisco owl's clover	-	1B.2	Coastal prairie and valley and foothill grassland.	May occur in open grassland.
Invertebrates				
Danaus plexippus monarch butterfly	-	CNDDB	Winter roosts in central to southern California coast. Roosts in wind-protected groves of eucalyptus, Monterey pine, cypress.	May occur in Eucalyptus grove (winter roosts).
Hydrochara rickseckeri Ricksecker's water scavenger beetle	-	CNDDB	Permanent and semi-permanent freshwater sources.	May occur in creeks and wetlands.
Hygrotus curvipes Curve-footed diving beetle	FSC	-	Vernal pools and other wetlands in the Sacramento River delta.	May occur in creeks and wetlands.
Fish				
Oncorhynchus tshawytscha Central Valley winter-run chinook salmon, Sacramento River	FE	CE	Spawn in cold, clear streams with gravel substrate and adequate large woody debris for cover. Prefer larger streams and river mainstems. Rear in estuaries during transition to oceanic lifestyle.	May occur in creeks, but no suitable spawning habitat.
Amphibians				
Rana aurora draytonii California red-legged frog	FT	CSC	Associated with quiet perennial and intermittent ponds, deep stream pools and wetlands. Prefers shorelines with extensive vegetation.	Present in Refugio Creek, and may occur in suitable pools and creeks.

Species	Status * Federal (USFWS)	Status * State, CNPS, Other	General Habitat Requirements	Potential to Occur in Project Area
Reptiles				
Actinemys marmorata western pond turtle	-	CSC	Found in perennial fresh and brackish water habitats, including wetlands and ponds, with adequate cover and basking sites.	May occur in suitable creeks or wetlands.
Birds				
Accipiter cooperii Cooper's hawk	-	CSC	Forages in broken deciduous or conifer forests. Nests in large trees, often in riparian areas.	May forage in riparian areas.
Agelaius tricolor Tricolored blackbird	-	CNDDB	Requires open water, protected nest, and foraging area with insect prey.	May occur in the central valley and vicinity.
Ardea herodias great blue heron	-	CSC	Forages in wetlands, flooded fields, and shallow water. Nests in colonies in larger trees.	May forage in emergent wetlands and detainment ponds, but unlikely to nest.
Circus cyaneus Northern harrier	-	CNDDB	Nests and forages in open area grasslands, meadows, and emergent wetlands.	May occur in open grasslands and emergent wetlands.
Buteo regalis Ferruginous hawk	-	CNDDB	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of piñon-juniper habitats.	May occur in open grasslands and brushy slopes.
Elanus leucurus white-tailed kite	-	CSC	Nests in large, dense-topped trees. Forages in open grasslands, meadows, marshes, and fields.	May forage in open areas and could nest in suitable trees.
Eremophila alpestris actia California horned lark	-	CNDDB	Nests in grasslands, forages on invertebrates and seeds. Coastal regions, short-grass prairie, open foothills, mountain meadows, open coastal plains, and alkali flats.	May occur in coastal foothills and plains.
Geothlypis trichas sinuosa saltmarsh common yellowthroat	-	CSC	Thick cover, including tall grasses, tules, willow thickets on the edges of fresh and saltwater marshes of San Francisco Bay.	May nest in marshes and forage in emergent wetlands.

Species	Status * Federal (USFWS)	State, CNPS, Other	General Habitat Requirements	Potential to Occur in Project Area
Lanius ludovicianus mearnsi Loggerhead shrike	-	CNDDB	Nests in dense shrubs or trees; forages in open areas.	May occur in wooded or open areas.
Laterallus jamaicensis coturniculus California black rail	-	CT	Freshwater marshes, wet meadows, and margins of saltwater marshes bordering larger bays.	May occur in emergent marsh.
Melospiza melodia samuelis San Pablo song sparrow	-	CSC	Resident of salt marshes and tidal sloughs of San Pablo Bay. Nests in Grindelia in slough channels.	May occur in salt marsh or tidal slough habitat.
Mammals				
Antrozous pallidus pallid bat	-	CSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	May forage over project area. Marginal roosting habitat present in structures within developed areas of the project area.
Microtus californicus sanpabloensis San Pablo vole	-	CSC	Salt marshes of San Pablo Creek. Prefers emergent vegetation and soft soils for burrows.	May occur in salt-marsh or tidal marsh habitat.

** Definitions of Status Codes:*
Federal: FE = Federally listed as endangered; FT = Federally listed as threatened; FSC = Federal Species of Concern
State: CE = California State listed as endangered; CT = California State listed as threatened; CSC = California species of special concern; CFP = California fully protected species; Rare = Species may become endangered; CNDDB = tracked by California Natural Diversity Database.
CNPS: 1B = Rare, Threatened, or Endangered in California and Elsewhere; 2 = Rare, Threatened, or Endangered in California, but more common elsewhere; 3 = More information needed

Special-Status Plants

Historical disturbance, existing site conditions, and abundance of competing non-native species create difficult growing conditions for all special-status plants. Nonetheless, field surveys and references indicate that the following three special-status plant species could occur on the project sites: Bent-flowered fiddleneck (*Amsinckia lunaris*), Fragrant fritillary (*Fritillaria liliacea*), and Diablo helianthella (*Helianthella castanea*). As described below, none of the species are federally or California state-listed as threatened or endangered, but are listed by the CNPS as "fairly endangered."

Bent-flowered fiddleneck

Bent-flowered fiddleneck is a California endemic[5] considered to be fairly endangered by the CNPS. This annual of the borage family is restricted to the San Francisco Bay Area, the inner coast ranges, and the western Central Valley. This plant grows in coastal bluff scrub and valley and foothill grasslands and blooms March to June. There are two occurrences of this species within 5 miles of the project sites. This species may occur in non-native grassland and disturbed scrub habitats on both sites.

Fragrant fritillary

Fragrant fritillary is a California endemic considered fairly endangered by the CNPS. This perennial of the lily family is found in coastal scrub, coastal prairies, and grasslands of the coast ranges. It grows from a bulb to flowers from February to April. There is a single occurrence of this species within 5 miles of the project sites. This species may occur in the non-native grassland habitat of the Hill Town site.

Diablo helianthella

Diablo helianthella is a California endemic considered fairly endangered by the CNPS. This perennial of the sunflower family inhabits a variety of grassland, wooded, and brushy habitats in the San Francisco Bay and delta regions and blooms from March to June. There are seven occurrences of this species within 5 miles of the project sites. It may occur in non-native grasslands and disturbed scrub habitats on both project sites.

Special-Status Wildlife

Five special-status wildlife species may occur on the project sites, including two CDFG species of concern, one CDFG fully protected species, one CDFG special animal, and one species tracked by the CNDDB. A description of the five species is provided below.

Monarch Butterfly

The monarch butterfly is an insect of the order Lepidoptera that undertakes long-distance, multi-generational migrations as part of its life cycle. This species is not federally or state-listed but the CNDDB tracks winter hibernation sites in California because of its migration pattern. The western population of monarch butterflies spends the summer in the west of the Rocky Mountains and migrates to coastal California in the winter. Individuals congregate in large groups in protected groves of trees, often eucalyptus, which protect them from wind and temperature extremes. There are three occurrences

[5] Endemic means that a species' natural range is limited to a single location or region.

of this species within 5 miles of the project sites. The eucalyptus groves on both project sites may provide marginal butterfly winter roosting habitat; however, the small size of the grooves limits their habitat potential.

Great Blue Heron

The great blue heron is considered a "special animal" by the CDFG, and the nesting (rookery) sites of this species are also protected. This tall wading bird of the heron, egret, and bittern family is often seen wading in shallow estuary systems and freshwater and saline emergent wetlands stalking fish, invertebrates, amphibians, reptiles, and small mammals. It roosts in riparian trees near foraging habitat and nests, often colonially, in the tops of secluded snags or live trees. There are two nesting (rookery) occurrences of this species within 5 miles of the project sites. Freshwater emergent wetlands within the project sites may provide foraging habitat for the great blue heron. However, it is unlikely to nest within the project sites due to the proximity of human activity and the limited number of suitable nest trees. There was no evidence of a nest (rookery) within or immediately adjacent to the project sites.

White-Tailed Kite

The white-tailed kite is considered a fully protected species by the CDFG and is a resident of California. This small raptor of the falcon family hunts small mammals over a variety of habitats, including open fields, grasslands, and marshes, often hovering in midair. The species nests near the top of large, deciduous trees with dense foliage, building a twig nest lined with grass and leaves. Monogamous pairs form in December and both members of the pair begin nest-building in January. The open grassland, scrub, and riparian habitats within the project sites may provide occasional foraging areas for the white-tailed kite. There are no occurrences of this species within 5 miles of the project area. Nesting within the project sites is not likely due to the proximity of human activity and lack of suitable nest trees. Moreover, no individuals were observed during field surveys conducted by SWCA, which were conducted during the white-tail kite courtship and nest-building period.

Salt Marsh Common Yellowthroat

The salt marsh common yellowthroat is considered a species of concern by the CDFG ("common" notwithstanding) and is a year-round resident of California. This medium-sized bird of the wood warbler family is a subspecies of the common yellowthroat, and is found in wetland habitats of San Francisco and San Pablo Bays. It inhabits salt marshes only in the winter, and breeds in either fresh or brackish marshes. There are no occurrences of this species within 5 miles of the project area; however, 14 occurrences have been documented within 10 miles. Within the project sites, thick stands of cattails in the emergent

wetland may provide summertime breeding habitat and cover for this bird, and likely would support abundant insect populations for feeding.

Pallid Bat

The pallid bat is considered a species of special concern by the CDFG. This bat occurs in a wide variety of habitat types, from arid deserts and grasslands to mixed conifer forests, from western Canada to central Mexico. It is most common in rocky dry areas with crevices in cliffs or caves for roosting. The pallid bat has three different roosts: the day roost, usually in a warm, horizontal opening such as in attics or rock cracks; the night roost, usually in the open, near foliage; and the hibernation roost, often in buildings, caves, or cracks in rocks. There is a single occurrence of this species within 5 miles of the project area. Open portions of the project area, including fields adjacent to structures in the Hill Town site, could provide suitable foraging habitat for this species.

3.3.2.5 Wildlife Corridors and Connectivity

Wildlife corridors are landscape features that support wildlife movement between principal habitat areas, which are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Animals use wildlife corridors to find food, cover, and breeding sites, for general dispersal (e.g., where a juvenile male mountain lion must leave the territory of a dominant male) and seasonal migrations. Wildlife corridors actually increase the habitat value of the areas that they link, because their very presence minimizes the possibility that a natural area will become an "island," leading to species' inbreeding and possible local extinction.

There are generally three recognized wildlife corridor types: travel routes, habitat linkages, and wildlife crossings. Travel routes are linear landscape features, such as watercourses or ridgelines that are easily traversed, with gentle topography and few obstructions, and provide such resources as water and den sites. Habitat linkages are wider corridors of habitat that connect two or more larger patches of habitat. Wildlife crossings are physical features, such as culverts or bridges, which allow wildlife to bypass substantial physical obstructions like major highways or railroad tracks.

The project sites are not known to be a part of, or contain, regionally important wildlife movement corridors, largely due to existing roadways and urban development within the vicinity. Both sites within the project area can be viewed as islands surrounded by an urban landscape. They are consequently unable to act as corridors between larger areas of wildlife habitat. Nonetheless, movements on a smaller, local scale may exist within the project sites. For example, small animals may move along the intermittent drainage within the Sycamore Crossing site. However, the local extent of human activity, the limited

riparian vegetation as well as adjacent roadways probably minimize this streambed's importance to wildlife movement.

3.3.3 REGULATORY FRAMEWORK

3.3.3.1 Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (ESA), 16 USC Section1531-1544, makes it unlawful to "take" any species identified by the USFWS as threatened or endangered without a permit or approved exemption. "Take" means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." An "incidental take" is a take of a listed species during an otherwise lawful activity. The ESA sets forth the following two categories of endangered species:

- *Endangered*: any species, which is in danger of extinction throughout all or a significant portion of its range
- *Threatened*: any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

The ESA also protects endangered species' habitat by designating "critical habitat" at the time of a species' listing or later. Disturbing critical habitat may also constitute a take.

A project that has the potential to take or incidentally take an endangered or threatened species cannot proceed without an ESA permit issued by the USFWS. Two relevant ESA permits exist: (1) ESA Section 7 Permit (federal agency projects), and (2) ESA Section 10 Permit (non-federal entity projects).

Clean Water Act: Sections 401 and 404

The USACE and the EPA regulate the placement of fill into waters of the US under CWA Section 404. "Waters of the United States" include lakes, rivers, streams and their tributaries, and wetlands. Wetlands are defined for regulatory purposes as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated solid conditions (33 CFR 328.3, 40 CFR 230.3). Proposed proponents must obtain a permit from the USACE for all discharges of fill material into water of the US, including wetlands, before proceeding with a proposed project.

Migratory Bird Treaty Act

The proposed project would be subject to the requirements of the Migratory Bird Treaty Act (MBTA). This regulation protects all migratory birds and their nest and makes it unlawful to take any migratory bird or active nests. In addition, the MBTS (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 Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Raptors (e.g., eagles, hawks, and owls), including the white-tailed kite and their nests are protected under both this federal law and under state laws and regulations described under **Subsection 3.3.3.2, California Regulations,** below.

3.3.3.2 California Regulations

California Endangered Species Act

Section 2080 of the California Endangered Species Act (CESA) prohibits the take of state-listed threatened and endangered species. The CESA defines "take" as any action that would harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. If a proposed project may result in take of a listed species, a permit pursuant to Section 2080 of CESA is required from the CDFG.

California Fish and Game Code

Birds. The proposed project would be subject to the requirements of Sections 3503 and 3513. These sections of the *California Fish and Game Code* protect birds, as well as their nests and eggs. These regulations protect all native birds and their nests and make it unlawful to take any native birds and/or active nests. Nesting raptors are specifically protected under CDFG Section 3503.5. Migratory birds are also protected by the State of California. The *Fish and Game Code* Section 3503 emulates the MBTA and protects birds' nests and eggs from all forms of take. Disturbance that causes nest abandonment, resulting in the loss of eggs or young, may be considered take by the CDFG.

Bats. Bats and other non-game mammals are protected in California regardless of whether they are common or protected by federal laws. The *Fish and Game Code* Section 4150 states that all non-game mammals or parts thereof may not be taken or possessed except as provided otherwise in the code or in accordance with regulations adopted by the commission. Activities resulting in the mortality of non-game mammals (e.g., destruction of an occupied non-breeding bat roost, resulting in the death of bats), or disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), may be considered take by the CDFG.

Rivers, Streams, and Lakes. Sections 1600 through 1616 of the *Fish and Game Code* prohibit diversion or obstruction of, and discharge of material into any California river, stream, or lake without a streambed alteration agreement issued by the CDFG. Generally, the CDFG's jurisdiction extends to the outer edge of riparian vegetation. Notably, the code prohibits CDFG from approving such an activity unless there are "reasonable measures" in place that avoid substantial adverse effects to the water resource. Certain exceptions apply, including routine maintenance of water supply systems, drainage or flood controls, and waste treatment systems.

California Native Plant Protection Act

The California Native Plant Protection Act (CDFG Section 1900-1913) added protections to rare or endangered native plant species. It prohibits importing, taking, possessing, or selling (with certain exceptions) rare or endangered native plants·

California Wetlands Conservation Policy/Executive Order W-59-93

In August 1993, Governor Pete Wilson instituted the California Wetlands Conservation Policy, and issued Executive Order W-59-93 to implement the policy. Policy goals include ensuring no overall net loss of wetlands; achieving long-term net gain in quantity, quality, and permanence of wetlands acreage; and encouraging partnerships between the public and private sectors for wetlands conservation and restoration.

3.3.3.3 Local Policies And Ordinances

The *City of Hercules General Plan* Open Space and Conservation Element, Policy 2a, requires proponents to design construction footprints to avoid wetlands, and to mitigate effects where avoidance is not possible. General Plan Program 6(b)(1) requires surveys of existing eucalyptus groves prior to construction, because of their habitat value to the monarch butterfly.

Tree Removal Ordinance No. 33

Ordinance No. 33 regulates the removal of mature trees on private and public properties within Hercules. A mature tree includes any living tree with a trunk diameter measuring 12 inches or greater when measure at about 4.5 feet above the surface of the ground. According to the ordinance, mature trees may be removed in conjunction with the development of a project if the City has issued all necessary land use approvals and if the City has approved a tree replacement plan. Additionally, mature trees may be removed for development project in conjunction with permits from the California Department of Toxic Substances Control, USACE, and CDFG upon the following conditions: (1) the property owner has

obtained and is in compliance with a grading permit and erosion and sediment control plan, (2) the City has approved and the property owner is implementing a tree replacement plan as part of the environmental mitigation program approved by the applicable state or federal agency, and (3) the proposed pre-development activities are consistent with the City's *General Plan* as determined by the Community Business Development Director. Exceptions to the provisions of the tree ordinance include removal of trees that pose an immediate and substantial threat to the safety of persons or property. Exception must be approved by the Public Works Director prior to removal of the tree.

3.3.4 IMPACTS AND MITIGATION MEASURES

3.3.4.1 Significance Criteria

The impact of the proposed project on biological resources would be considered significant if it would exceed the following standards of significance, in accordance with Appendix G of the *2008 California Environmental Quality Act (CEQA) Statutes and Guidelines.*

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Services.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, costal, and so forth) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan.

Biological Issues Not Discussed Further

The project site is not subject to a habitat conservation plan (HCP); natural community conservation plan; or other approved local, regional, or state habitat conservation plan. No such plans have been adopted

encompassing either project site. Therefore, no conflict or substantial impact is anticipated, and no further discussion is necessary..

The project area does not contain regionally important terrestrial movement corridors because both project sites are largely surrounded by existing roadways and nearby urban development, and they exhibit many decades of industrial uses. Neither site can effectively function as a corridor between larger areas of wildlife habitat. Although, movements on a smaller, "local" scale can exist within the project area, e.g., small animals may move along the intermittent drainage within the Sycamore Crossing property; the proximity of human activity, the limited riparian vegetation present, and barriers presented by roads probably minimize the importance of the drainage for wildlife movement. No substantial interference with wildlife corridors is anticipated.

Impact Methodology

Direct impacts of a proposed project on biological resources can take several forms, but typically involve the loss, modification, or disturbance of natural habitat, which in turn directly affects plant and wildlife species dependent on that habitat. Two methods were used to determine areas of potential impact on biological resources: field investigations and literature and database review. These are described in **Subsection 4.3.1, Introduction**. The level of significance of potential impacts on habitat areas is determined by an evaluation of the overall biological value of a habitat area with respect to significance criteria (described above). The relative value of each of the vegetation communities present on site is measured by such factors as disturbance history, biological diversity, its importance to particular plant and wildlife species, its uniqueness or sensitivity status, the surrounding environment, and the presence of special-status resources.

The significance of impacts with respect to direct impacts on individuals or populations of plant and wildlife species takes into consideration the number of individual plants or animals potentially affected, how common or uncommon the species is both on the project site and from a regional perspective, and the sensitivity status if the species is considered of special-status by resource agencies. Impacts are sometimes locally important but not significant according to CEQA because, although they would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide or region-wide basis. These factors are evaluated based on the results of the on-site biological surveys and studies, the results of literature and database reviews, and established and recognized ecological and biodiversity theory and assumptions.

Project Impacts and Mitigation Measures

Impact Bio-1: **The proposed project could result in significant impacts to sensitive habitats and natural communities, including riparian habitats, intermittent drainage, and freshwater emergent wetlands. *(Potentially Significant; Less than Significant with Mitigation)***

Redevelopment of the Sycamore Crossing and Hill Town project sites would result in the conversion of several vegetation communities to residential and commercial development. Non-native grasslands, developed and ruderal areas, and disturbed scrub are considered to have relatively low biological value; these communities have undergone high levels of disturbance, contain a high portion of non-native plant species, and generally have a low likelihood of supporting special-status species. Most wildlife species that occur within these degraded habitats are common. Further, these habitats are not considered sensitive habitats by resource agencies or local plans and ordinances, and their conversion would not be considered a significant impact. However, the intermittent tributary of Refugio Creek that bisects the Sycamore Crossing site and freshwater emergent wetland on the Hill Town site represent communities with higher biological value than those mentioned above.

As mentioned previously, a northeast-trending intermittent tributary of Refugio Creek bisects the Sycamore Crossing site and support approximately 1 acre of on-site riparian habitat. This intermittent stream may be considered waters of the United States; and if so, it would fall under the jurisdiction of the USACE. Additionally, the stream may qualify as water of the State and would fall under the jurisdiction of the CDFG. On the Hill Town site, a seasonal swale drains into a culvert that crosses San Pablo Avenue and connects with Refugio Creek. This approximately .04-acre swale forms a freshwater emergent wetland at the extreme southern edge of the Hill Town site. This wetland contains dense emergent vegetation, including cattails, spikerush, and bulrush, indicating that water is present throughout the year. The wetland fringe also supports a small stand of Arroyo willow.

The USACE evaluated the wetland in 2005 and advised via a letter that these wetlands are likely jurisdictional. Therefore, any discharge or fill activity to this wetland would require a permit. Additionally, a Section 401 Water Quality Certification permit from the Regional Water Quality Control Board (RWQCB) may be necessary for construction activities that would result in discharge of pollutants into waters of the US. The CDFG may assert jurisdiction over the intermittent drainage and associated riparian areas present on the Sycamore Crossing site. A Section 1600 Streambed Alteration Agreement may be necessary for construction that would divert, obstruct, or change the natural flow of the stream or if the project would alter the bed, bank, or channel of these streams.

Construction activities, including fill and discharge, would result in a direct impact to the wetland and intermittent stream on the project sites. Additionally, construction activities would potentially damage or eliminate portions of the riparian habitat located on the Sycamore Crossing site. Future development on the project sites would have a potentially significant impact to sensitive habitats on the project sites prior to mitigation.

MM BIO-1a: Prior to any specific project development approval, the project proponent shall contact the United States Army Corps of Engineers (USACE) to identify the jurisdictional status and extent of (1) the freshwater wetland and detainment pond features on the Hill Town site and (2) the intermittent drainage on the Sycamore Crossing site. Project plans shall identify all jurisdictional boundaries with a unique graphic symbol. No construction, landscape irrigation, paving, or other impermeable surface treatment shall be placed within any jurisdictional area or within a minimum of 25 feet (or other USACE-identified appropriate buffer perimeter) beyond any jurisdictional boundary. Encroaching into the USACE's jurisdictional area and corresponding buffer shall be allowed only if it is not possible to create a development plan for the subject site that avoids the USACE's jurisdictional area and corresponding buffer without conflicting with the proposed Updated 2009 Redevelopment Plan or the City's *General Plan* (as determined by the City's Planning Director). In such a case, encroachment into the USACE's jurisdictional area shall not occur unless a Section 404 permit is acquired from the USACE and the project proponent(s) replaces the lost value of the jurisdictional area to the satisfaction of the USACE.

MM BIO-1b: Prior to any specific project development approval, the project proponent shall contact the California Department of Fish and Game (CDFG) to identify the state jurisdictional status and extent of (1) the freshwater wetland and detainment pond features of the Hill Town site and (2) the intermittent drainage on the Sycamore Crossing site. Project plans shall identify all jurisdictional boundaries with a unique graphic symbol. No construction, landscape irrigation, paving or other impermeable surface treatment shall be placed within any jurisdictional area or within a minimum of 25 feet (or other CDFG-identified appropriate buffer perimeter) beyond any jurisdictional boundary. In the event of a conflict between responsible agency requirements for **Mitigation Measure BIO-1a** and **Mitigation Measure BIO-1b**, the larger buffer perimeter shall be established. Encroaching into the CDFG's jurisdictional area and corresponding buffer shall be allowed only if it is not possible to create a development plan for the project sites that avoids the CDFG's jurisdictional area and corresponding buffer without conflicting with

the Updated 2009 Redevelopment Plan or the City's *General Plan* (as determined by the City's Planning Director). In such a case, encroachment into the CDFG's jurisdictional area shall not occur unless a Streambed/Lake Alteration Agreement is acquired from the CDFG and the project proponent(s) replaces the lost habitat to the satisfaction of the CDFG.

MM BIO-1c: Certain project components, such as nature trails, wildlife observation areas, etc., may not be compatible with sensitive habitats. Prior to incorporating such features into project plans for Hill Town, the project proponent shall obtain permission from the USACE, the CDFG, and the Regional Water Quality Control Board, and agree to comply with permit-related conditions. Permission constitutes CWA Section 401 and 404 permits, and *California Fish and Game Code* Section 1600 Streambed Alteration Agreement, or other permit issued by the responsible agency. If any or all of these responsible agencies do not require permits for these features, then the project proponent shall obtain relevant approvals from the City of Hercules Planning and/or Parks and Recreation Department.

MM BIO-1d: Prior to issuance of grading permits for the Sycamore Crossing or Hill Town projects, the project proponent shall submit a fencing plan to the City of Hercules Planning Department for approval that corresponds to the USACE and/or CDFG-approved perimeter beyond the sensitive habitat areas described in **Mitigation Measures BIO-1a** and **BIO-1b** above, and install temporary construction fencing according to the approved plan. The fencing plan may be superimposed on the grading plan or may be a separate plan; if on a separate plan, the fencing plan shall show existing and proposed contour lines in the vicinity of the fence.

Significance after Mitigation. Implementing **Mitigation Measures BIO-1**, **BIO-2**, **BIO-3,** and **BIO-4** in the project design process and construction plans would reduce impacts to a less than significant level.

Impact Bio-2: **The proposed project could substantially affect candidate, sensitive or other special-status species, as identified in local or regional plans, policies or regulations, or by the CDFG or USFWS.** ***(Potentially Significant; Less than Significant with Mitigation)***

Implementation of the proposed project would allow land use designations that permit residential and commercial uses on site. The development of the site to these uses could substantially affect several listed plant and animal species discussed in **Subsection 3.3.2,** above, including the bent-flowered fiddleneck, fragrant fritillary, Diablo helianthella, monarch butterfly, pallid bat, and the salt marsh common

yellowthroat, as well as other birds protected by the MBTA. Project construction associated with future development of the sites might result in the potential direct loss of special-status plant and animal species. This is considered a potentially significant impact prior to mitigation.

It should be noted that no formally listed threatened or endangered species is known or expected to occur on site. Species blooming or nesting times differ, and determining whether any of these species is present in the project area will depend on (for plants) the amount of precipitation from the previous winter and (for animals) the quality of the habitat for foraging and nesting. Timely surveys and species inventories would provide adequate information and determine the necessity for mitigation to protect any special-status species present. **Mitigation Measures BIO-2a5**, **BIO-2b**, and **BIO-2c**, including mapping sensitive species' occurrence and distribution, minimizing grading and construction where sensitive plant species are present, avoiding construction during nesting periods, and revegetating permanent open-space areas with regionally specific native plants, would reduce impacts on sensitive species to less than significant levels.

MM BIO-2a: **(special-status plants)** (a) Prior to submission of grading plans, prior to any vegetation removal, and as feasible, during the late spring season from April through May, the project proponent shall engage a qualified botanist to conduct focused surveys for the bent-flowered fiddleneck (*Amsinckia lunaris*), fragrant fritillary (*Fritillaria liliacea*), and Diablo helianthella (*Helianthella castanea*) in the grassland and scrub habitat of the project sites. Surveys shall comply with the *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (CDFG 2000). (b) If the project botanist discovers any of these species, the individual plant locations shall be located on the site map with GPS UTM markers and flagged in the field. No grading plan review shall proceed until the project proponent informs the CDFG and commits to appropriate mitigation measures that meet the satisfaction of the CDFG, such as avoidance, creation of buffers, transplantation, or off-site mitigation.

MM BIO-2b: **(special-status animals)** (a) Prior to submission of grading plans, the project proponent shall engage a qualified biologist to conduct focused surveys for the monarch butterfly (*Danaus plexippus*), the pallid bat (*Antrozous pallidus*), and the salt marsh common yellowthroat *(Geothlypis trichas sinuosa)*, and to identify any raptor species hunting or nesting in the project area. Surveys shall take place during the appropriate nesting/roosting and breeding periods for each listed species: the monarch butterfly during winter roosting period (October–February), for the pallid bat during hibernation (December–April), and the salt marsh common yellowthroat during breeding (March–September). Surveys shall comply with applicable CDFG protocols. (b) If the project

biologist discovers any of these species, the species' nest or roosting locations shall be located on the site map with GPS UTM markers. No grading plan review shall proceed until the project proponent informs the CDFG and commits to appropriate mitigation measures that meet the satisfaction of the CDFG, such as avoidance, creation of buffers, transplantation, timing of construction activities to avoid active nests/roosts, or off-site mitigation.

MM BIO-2c: The project proponent for the Sycamore Crossing or Hill Town project shall engage a California-registered landscape architect and qualified botanist to prepare landscape plans for any project-area open space or manufactured slopes. The open-space and slope landscape plans shall use only region-specific native plants, and shall be designed to promote habitat value.

Significance after Mitigation: Implementing mitigation measures **Mitigation Measures BIO-2a**, **BIO-2b**, and **BIO-2c** would minimize impacts to sensitive special-status plants and animals, and would reduce impacts to a less than significant level.

Impact Bio-3: **The proposed project could potentially conflict with the City's *General Plan* Open Space and Conservation Element, Policy 2a and tree preservation ordinance, Ordinance No. 33. *(Potentially Significant; Less than Significant with Mitigation)***

Implementation of proposed project could result in project designs that affect the on-site wetlands on the Hill Town site and the Refugio Creek tributary on the Sycamore Crossing site and also result in the removal of mature trees. Future project design would potentially conflict with the City's *General Plan* Open Space and Conservation Element, Policy 2a if the project design would not avoid the wetlands on site and would not mitigate impacts to wetlands. Policy 2a requires project proponents to design construction footprints to avoid wetlands, and to mitigate effects where avoidance is not possible. Also, the project would conflict with the City's tree ordinance if it would result in the removal of mature trees as defined by Ordinance No. 33, prior to approval from the City. This is considered a potentially significant impact. Policy 2(a) coincides with both federal and state agency policies for wetland resources, discussed under Impact Bio-1 and addressed by **Mitigation Measures BIO-1**, **BIO-2**, **BIO-3,** and **BIO-4**. Implementation of these mitigation measures would reduce any project conflict with Policy 2a to a less than significant level. Furthermore, implementation of **Mitigation Measure BIO-8** would reduce the potentially significant impact to conflict with the City's tree ordinance to a less than significant level.

MM BIO-3: Project proponents shall adhere to the requirements of the City's tree ordinance, Ordinance No. 33, which includes the submittal of a tree replacement plan to the City for approval.

Significant after Mitigation: Implementation of **Mitigation Measure BIO-8** would ensure that future projects are consistent with the City's tree ordinance and would reduce this potentially significant impact to less than significant.

Cumulative Impacts and Mitigation Measures

Impact Bio-4: **The proposed project along with other future development associated with the redevelopment plan could result in a cumulative impact to biological resources. *(Potentially Significant; Less than Significant with Mitigation)***

Cumulative development of the Sycamore Crossing and Hill Town sites, along with other areas in the Updated 2009 Redevelopment Plan Area, would result in a cumulative loss of habitat, including foraging habitat for special-status species. However, this loss is considered minor due to the low quality of the habitat. Direct cumulative impacts to certain special-status species could also occur, depending on the site-specific designs and presence/absence of each species at each development site. The following species would be cumulatively affected by the Updated 2009 Redevelopment Plan as a whole: multiple special-status plant species, monarch butterfly, California red-legged frog, western pond turtle, multiple special-status and migratory bird species, and pallid bat. As noted in **Table 3.3-1**, California red-legged frog and western pond turtle occur in the general project area; however, development of the Sycamore Crossing and Hill Town sites would not cause significant impacts to these species and would not contribute to cumulative impacts. Site-specific mitigation measures, similar to **MM BIO-1** through **MM BIO-3** would reduce the cumulative impacts to the remaining listed species to less than significant levels, assuming the measures are incorporated for each development project. Wetland or other jurisdictional water may also be affected by the cumulative redevelopment plan, but avoidance or preservation would be regulated through site specific mitigation measures and permits from the USACE and/or CDFG to minimize adverse effects. Therefore, with implementation of project mitigation measures, cumulative impacts to biological resources are considered less than significant.

3.3.5 REFERENCES

Jane Hicks, Chief, Regulatory Branch, US Army Corps of Engineers, San Francisco District, letter to Mr. Jim Lopeman, Santa Clara Valley Housing Group. December 2006.