

3.4 Staging Areas and Access

Staging areas for construction equipment and other materials will be at locations that would be within and adjacent to the areas of project work, and would avoid wetland areas. One proposed staging area for construction materials and equipment will be located in the City's lands adjacent to the station's fenced area, along the top of the existing City levee and within flood control basin. The City will review and approve any other designated areas within the project area proposed by the contractor for staging. Access for construction will be through Baylands Park, along access roads and from the existing levees surrounding the flood control basin and wetlands area. Construction access for the outfall modifications will require temporary partial closure of the public access pathway adjacent to the pump house. A detour route would be designated with signage along the levee surrounding the flood control basin. The City is sensitive to the needs of park users that use the trail and will work with the contractor during construction to minimize any temporary closures.

3.5 Construction Schedule and Equipment

Construction of the proposed project facilities is expected to begin in the late spring of 2014 and likely will continue into the winter of 2014/15, over a total period of approximately six (6) to eight (8) months. Construction work will typically be done within normal City working hours, weekdays between the hours of 7:00 a.m. and 6:00 p.m., and, if necessary, Saturdays between 8:00 a.m. and 5:00 p.m. There will be no construction activity on Sunday or national holidays when city offices are closed.

In support of these activities and for the assumptions for this document, the types of equipment that may be used at any one time during construction may include, but are not limited to:

- Track-mounted excavator
- Backhoe
- Crane
- Compactor
- End and bottom dump truck
- Front-end loader
- Water truck
- Flat-bed delivery truck
- Forklift
- Asphalt paver

During construction, access to the trail along the existing levee adjacent to the creek would be temporarily closed. A detour route would be designated with signage along the levee surrounding the flood control basin. The City is sensitive to the needs of park users that use the trail and will work with the contractor during construction to minimize any temporary closures.

4.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts.

4.1 Special-Status Species

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFW special-status invertebrates, are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal. Plant species on California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (Inventory) with California Rare Plant Ranks (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Rank 3 and 4 species have little or no designated protection under CEQA, but are included in this analysis for completeness, including review of those species for local rarity.

4.2 Biological Communities

Various laws and regulations have been established to protect biological communities that are considered to be of particular value to ecological function. These sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations such as the Clean Water Act; state regulations such as the Porter-Cologne Act, the CDFW Streambed Alteration Program, and CEQA; or local ordinances or policies such as city or county tree ordinances, Special Habitat Management Areas, and General Plan Elements.

Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates “Waters of the United States” under Section 404 of the Clean Water Act. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as “other waters” and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S generally requires an individual or nationwide permit from the Corps under Section 404 of the Clean Water Act.

Waters of the State

The term “Waters of the State” is defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special

responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes “isolated” wetlands and waters that may not be regulated by the Corps under Section 404. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program, which regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term “stream”, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life... [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term “stream” can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). “Riparian” is defined as “on, or pertaining to, the banks of a stream.” Riparian vegetation is defined as “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

San Francisco Bay and Shoreline

The San Francisco Bay Conservation and Development Commission (BCDC) has regulatory jurisdiction, as defined by the McAteer-Petris Act, over the Bay and its shoreline, which generally consists of the area between the shoreline and a line 100 feet landward of and parallel to the shoreline. Within the Study Area, BCDC has two areas of jurisdiction: San Francisco Bay and the Shoreline Band. Definitions of these areas, as described in the McAteer-Petris Act (PRC Section 66610), are given below.

San Francisco Bay: all areas that are subject to tidal action from the south end of the Bay to the Golden Gate (Point Bonita-Point Lobos) and to the Sacramento River line (a line between Stake Point and Simmons Point, extending northeasterly to the mouth of Marshall Cut), including all sloughs, and specifically, the marshlands lying between mean high tide and five feet above mean sea level; tidelands (land lying between mean high tide and mean low tide); and submerged lands (land lying below mean low tide).

Shoreline Band: all territory located between the shoreline of San Francisco Bay as defined above and a line 100 feet landward of and parallel with that line, but excluding any portions of such territory which are included in other areas of BCDC jurisdiction, provided that the Commission may, by resolution, exclude from its area of jurisdiction any area within the shoreline band that it finds and declares is of no regional importance to the Bay.

The area of the pump station outfalls is shown as being within BCDC jurisdiction as “tidal marsh” on Plan Map 7 of the BCDC San Francisco Bay Plan.

5.0 METHODS

On August 22, 2012, and May 22, 2013, the Study Area was traversed on foot to make a determination of whether (1) sensitive habitats, particularly wetlands and waters, are present, (2) if existing conditions provided suitable habitat for any special-status plant or wildlife species, and (3) other sensitive plant communities are present within the Study Area. Methods for the evaluation of these site characteristics are described below. In addition, WRA reviewed previous biological resources data collected in the late-1980s and early-1990s, as part of the planning and permitting for the Sunnyvale Baylands Park and the Baylands Seasonal Wetland Preserve.

5.1 Biological Communities

The biological communities within the Study Area were assessed during the site visit by biologists familiar with plant and aquatic community types of the south San Francisco Bay region. The biologists noted major plant communities and associates, as well as the general location of these communities within the Study Area. Potentially jurisdictional wetlands and waters were also mapped using a Trimble GPS unit with sub-meter accuracy.

Prior to conducting field surveys, reference materials including the Soil Survey of Santa Clara County (USDA 2010), the Milpitas USGS 7.5' quadrangle, and aerial photos of the site were examined to determine if any unique soil types that could support sensitive plant communities and/or aquatic features were present in the Study Area. Biological communities present in the Study Area were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and *A Manual of California Vegetation* (Sawyer et al. 2009). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

5.1.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations and ordinances. While these communities may provide suitable habitat for some special-status plant or wildlife species, the communities themselves are common in California and not afforded special protection.

5.1.2 Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 3.0. Special methods used to identify sensitive biological communities are discussed below.

Wetlands and Waters

A full delineation was completed within the Study Area on May 22, 2013, based on an evaluation of potential jurisdictional wetlands completed in the Study Area during the August 22, 2012 site visit. Methods and definitions described in *U.S. Army Corps of Engineers Wetlands Delineation Manual* ("Corps Manual"; Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* ("Arid West Supplement"; Corps 2008) were used to identify the presence and extent of any areas that meet the criteria for federally protected wetlands. The Study Area was evaluated for the presence or absence of indicators of the three wetland parameters of vegetation, soils, and hydrology described in the 1987 Corps Manual and Arid West Supplement. Data on vegetation, hydrology, and soils collected at sample points during the delineation site visit was reported on Arid West Supplement data forms. Once an area was determined to be a potential jurisdictional wetland, its boundaries were delineated using GPS equipment and mapped on a topographic map. The Study Area was also evaluated for the presence of unvegetated areas containing an "ordinary high water mark" indicating that they are potential jurisdictional waters of the U.S. The areas of potential jurisdictional wetlands and unvegetated waters were measured digitally using ArcGIS software. The complete description of methods and results of this study are provided in a separate wetland delineation report, and is being submitted to the Corps for verification. The results of the delineation are incorporated into this report.

5.2 Special-Status Species

5.2.1 Literature Review

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database search. Database searches for known occurrences of special-status species focused on the Milpitas and Mountain View 7.5 minute USGS quadrangles. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Study Area:

- California Natural Diversity Database (CNDDDB) records (CDFW 2013)
- USFWS quadrangle species lists (USFWS 2012)
- CNPS Inventory records (CNPS 2013)
- California Department of Fish and Game (CDFG) publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication "Amphibians and Reptile Species of Special Concern in California" (Jennings 1994)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- California Bird Species of Special Concern (Shuford and Gardali 2008)
- Salt Marsh Harvest Mouse (SMHM) Live Trapping Study completed by Western Ecological Services Company, Inc (WESCO 1987)

5.2.2 Site Assessment

Suitable habitats for special-status species were evaluated during site visits. Habitat conditions observed in the Study Area were used to evaluate the potential for presence of special-status species based on these searches and the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Study Area was then evaluated and is reported in the results section below.

The purpose of the site assessment is to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity in order to determine its potential to occur in the Study Area. The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species; however, if a special-status species is observed during the site visit, its presence will be recorded and discussed.

In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of WRA biologists with experience working with the species and habitats. If necessary, recognized experts in individual species biology were contacted to obtain the most up to date information regarding species biology and ecology.

If a special-status species was observed during the site visit, its presence is recorded and discussed below in Section 5.1. For some species, a site assessment visit at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies. In these cases, a species may be assumed to be present or further protocol-level special-status species surveys may be necessary.

6.0 RESULTS

The following sections present the results and discussion of the biological assessment within the Study Area. Special-status species lists generated from CDFW, CNPS and USFWS database searches are presented in Appendix A.

6.1 Biological Communities

The Study Area includes the Pump station, flood control basin, and outfalls, with seasonal wetland areas to the west and north, and coastal brackish marshes to the east of these features (Figure 4). Vegetation and aquatic communities observed in the Study Area are described below.

6.1.1 Non-sensitive Biological Communities

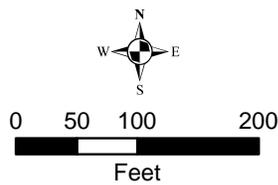
Developed land

Portions of the Study Area consist of a combination of developed areas, levee/road, and bare ground. There are also two stormwater inlets that were constructed on upland fill soils for the purposes of stormwater detention and flood control. Additionally, a flood control pump station and stormwater outfalls exist within the Study Area.



Figure 4. Biological Communities within the Study Area

City Pump Station Improvements
Sunnyvale, California



Date: November 2013
Map By: Derek Chan
Base Source: Microsoft 2010

Ruderal uplands

Ruderal uplands exist in drier areas on levees and fill dominated by exotic ruderal and grass species within of the Study Area. Ruderal communities are assemblages of plants that thrive in disturbed areas, and weedy, non-native annual forbs and grasses are typically the first species to colonize these sites following disturbance. Non-wetland (upland) areas include higher elevation areas within the larger Baylands seasonal wetlands area, and levees surrounding the Sunnyvale Pump Station flood control basin. These upland areas support salt grass (*Distichlis spicata*) and alkali heath (*Frankenia salina*) as well as non-native annual grasses and herbs such as wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), Italian rye grass (*Festuca perinnis*), barley (*Hordeum* spp.), and mustard (*Brassica* spp.).

Vegetation on the berms was generally absent along the top and sparse along the slopes, with tall herbs and grasses transitioning into more dense vegetation at the base of the slope. The levee slopes along the northern, eastern, and southern edges of the marsh complex also supported a mix of upland herbs, grasses, and shrubs.

Small mammal burrows were observed along the berm slopes among tall herbs and grasses or on bare ground. Many of the burrows were characteristic of California ground squirrel and Botta's pocket gopher, with others likely made by mice and voles. The majority of burrows observed appeared to be inactive, and no sign of past or present occupancy by burrowing owl was observed during the August 2012 site visit.

Flood Control Basin

The flood control basin is described separately because it is an engineered feature that was constructed for the purposes of flood control. Evidence from soil pits dug during the wetland delineation indicate that soils are comprised of engineered base material placed specifically to support the flood control functions of the flood control basin, and the area receives direct input of storm water from a man-made drainage system that directs runoff from areas south of Highway 237 and discharges that runoff into the flood control basin. According to the 1987 Corps Manual, areas that exhibit characteristics of wetlands as a result of conditions resulting from man-induced hydrology are not considered as meeting the definition of a wetland. While the flood control basin does contain indicators of wetland conditions, these indicators are a result of the discharge of water from the man-made storm drain system during flood events and the area is therefore not considered to be a wetland.

6.1.2 Sensitive Biological Communities

Coastal brackish marsh

Coastal brackish marsh was identified along the banks of Calabazas Creek along the eastern portion of the Study Area. The banks of Calabazas Creek in this reach are comprised of steep riprap slopes on which enough sediment has become deposited to support the growth of wetland vegetation. The creek is confined by 8-foot high drainage walls. As described in Holland (1986), this Coastal Brackish Marsh is dominated by perennial, emergent, herbaceous monocots up to two meters tall. The banks of Calabazas Creek contain elements of Cattail marshes [*Typha* (*angustifolia*, *domingensis*, *latifolia*) Alliance] and California bulrush marshes (*Schoenoplectus californicus* Alliance) (Sawyer 2009). Coastal brackish marsh in the Study Area supports vegetation including broad-leaf cattail (*Typha latifolia*), California bulrush (*Schoenoplectus californicus*), and water parsley (*Oenanthe sarmentosa*) with soils containing wetland indicators.

Seasonal wetlands

The Study Area contains a complex of seasonal wetlands within a diked former bayland (Baylands Seasonal Wetland Preserve). Seasonal wetland areas are saturated and/or ponded for various periods of duration during the winter rainy season and dry during the summer months. Diked former baylands are areas that were once tidal marsh areas at the margin of San Francisco Bay, but were historically converted to non-tidal areas. Diked former baylands still exhibit some aspects of tidal marsh areas, including presence of halophytic (salt-loving) plant species and remnant soil characteristics. The Sunnyvale Baylands seasonal wetlands area has been diked and cut off from tidal influence, and sources of hydrology are now limited to precipitation and stormwater runoff. Seasonal wetlands within the Study Area are shown in Figure 4 based on the wetland delineation completed on May 22, 2013.

Seasonal wetland plant communities are not described in Holland (1986), but occur in swales and depressions that are ponded during the rainy season for sufficient duration to support vegetation adapted to wetland conditions. Seasonal wetlands in the Study Area are similar to salt grass flats (*Distichlis spicata* Herbaceous Alliance) described in Sawyer (2009). Seasonal wetlands in California are highly variable in plant composition, depending on the length of ponding or inundation. They also generally lack the plant community assemblage typical of defined marshes and vernal pools.

The flood control basin and the entirety of the area located west of the Calabazas Creek bank was mapped as a seasonal wetland in the National Wetland Inventory; however, through field examination, seasonal wetland areas were more closely delineated based on Corps wetland criteria. Seasonal wetlands in the Study Area are dominated by facultative to obligate wetland species including alkali heath, broad-leaf pepperweed (*Lepidium latifolium*), ripgut brome, curly dock (*Rumex crispus*), pickleweed (*Salicornia pacifica*), red brome (*Bromus madritensis ssp. rubens*), bird's-foot trefoil (*Lotus corniculatus*), Italian rye grass, salt grass, seaside barley (*Hordeum marinum*), and foxtail barley (*Hordeum murinum ssp. murinum*).

6.2 Special-Status Species

6.2.1 Special-Status Plant Species

Based upon a review of the resources and databases including the CNDDDB and the Consortium of California Herbaria (CCH), 95 special-status plant species have been documented within the general vicinity of the Study Area, of which three were determined to have a moderate to high potential to occur within the Study Area. The Study Area contains suitable habitat for five additional species: San Joaquin spearscale (*Atriplex joaquinana*; CNPS Rank 1B.2), Congdon's tarplant (*Centromadia parryi ssp. Congdonii*; CNPS Rank 1B.1), Point Reyes bird's-beak (*Chloropyron maritimum ssp. palustre*; CNPS Rank 1B.2), Contra Costa goldfields (*Lasthenia conjugens*; Federal Endangered, CNPS Rank 1B.1), and Hairless popcornflower (*Plagiobothrys glaber*, CNPS Rank 1A). However, these species were not observed during the two field visits, which occurred during the blooming periods for those species. Given the growth habits of these species and the conditions at the time of the site visits, these species would have been readily observable during the site visits if they were present. Therefore, these species are not considered to have the potential to be present.

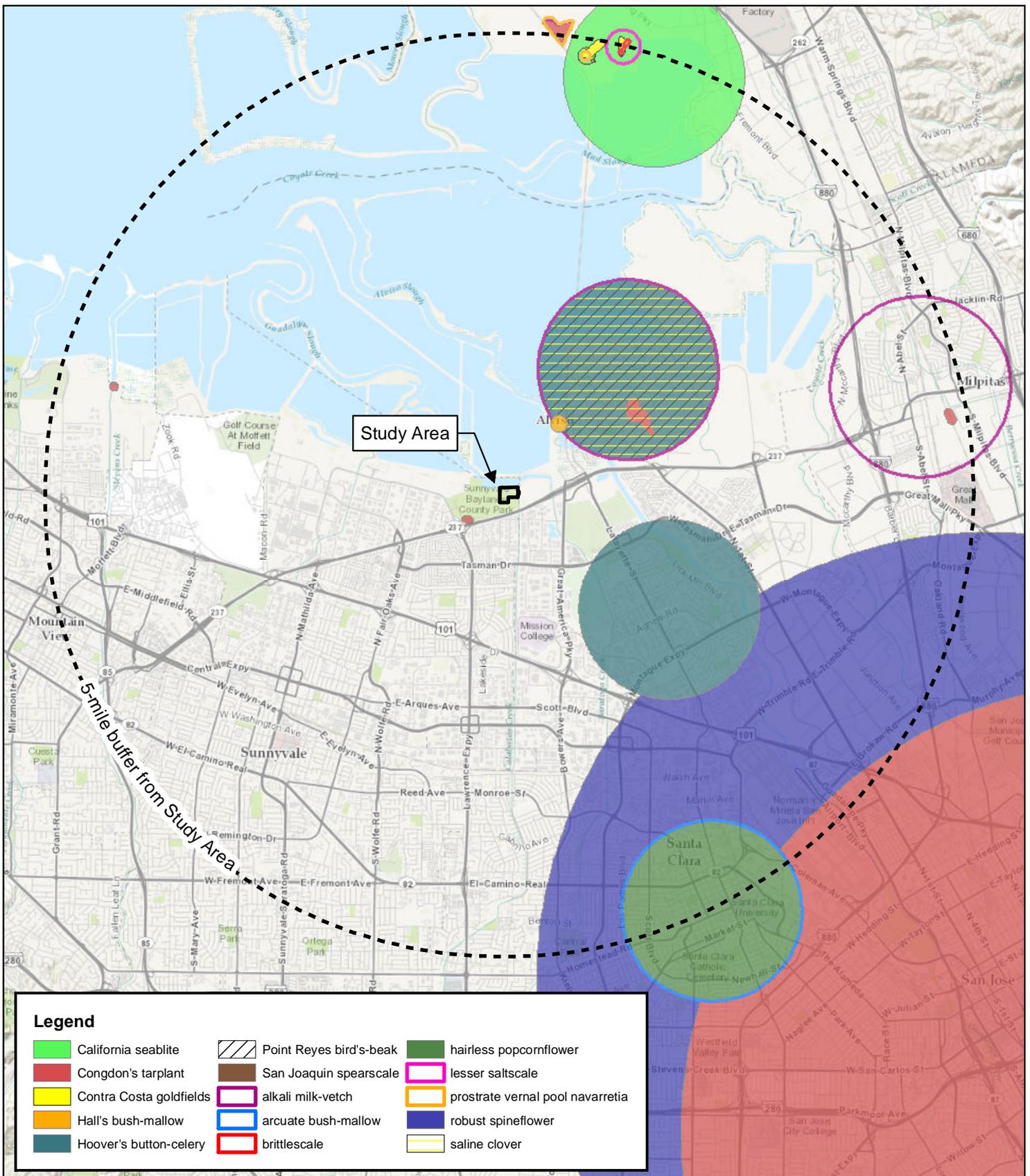
Additional plants were documented within Santa Clara County including legumere (*Legumere limosa*; CNPS 1B.1), prostrate vernal pool navarretia (*Navarretia prostrate*; CNPS 1B.1), slender-leaved pondweed (*Stuckenia filiformis*; CNPS 2.2), and caper-fruited tropidocarpum (*Tropidocarpum capparideum*; CNPS 1B.1); however, these plants were evaluated as having no potential to occur within the Study Area because vegetation cover was too dense within the Study Area, no ponds are present in the Study Area, or the species was misreported to occur in Santa Clara County when in fact, such records did not exist. Special-status plant species with the potential to occur in the Study Area are discussed below. Most of these species have the potential to occur within the Study Area in areas adjacent to, but outside of project construction disturbance.

- Alkali milk-vetch (*Astragalus tener* var. *tener*; CNPS Rank 1B.2)
- California seablite (*Suaeda californica*; Federal Endangered, CNPS Rank 1B.1)
- Saline clover (*Trifolium hydrophilum*; CNPS Rank 1B.2)

Alkali milk-vetch (*Astragalus tener* var. *tener*). CNPS Rank 1B.2. Moderate Potential.

Alkali milk-vetch is an annual herb in the pea family (Fabaceae) that blooms from March to June. It typically occurs on low ground in alkali flats and flooded lands in alkali playa, valley and foothill grassland, and vernal pool habitat at elevations ranging from 0 to 200 feet (CDFW 2013, CNPS 2013). This species is a facultative wetland (FACW) plant (Lichvar 2013), and is regularly known from vernal pool habitat, but may occur in other wetland habitat types (VPA) (Keeler-Wolf et al. 1998). Observed associated species include docks (*Rumex crispus*, *R. pulcher*), rough cocklebur, spiny cocklebur, bird's-foot trefoil, Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), Italian rye grass, harvest brodiaea (*Brodiaea elegans*), stipitate popcornflower (*Plagiobothrys stipitatus*), woolly marbles (*Psilocarphus tenellus*), salt grass, mouse-tail (*Myosurus minimus*), and alkali heath (CDFW 2013).

Alkali milk-vetch is known from 35 USGS 7.5-minute quadrangles in Alameda, Contra Costa, Merced, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Joaquin, Solano, Sonoma, Stanislaus, and Yolo counties (CNPS 2013). There are three CNDDDB (CDFW 2013) records in the greater vicinity of the Study Area, three CCH (2013) records from Santa Clara County, and nine CNDDDB records from Alameda County. The nearest documented occurrence is from September 2002 near Sunnyvale, approximately 1.8 miles northeast of the Study Area (CDFW 2013). Alkali milk-vetch has a moderate potential to occur in the Study Area based on the presence of suitable hydrologic conditions, somewhat alkali conditions, and the presence of several associate species. Alkali milk-vetch was not observed during its blooming period within the projected construction areas during the May 2013 site visit, but conditions during that visit were not suitable for determining presence or absence of this species given its growth habit.



California seablite (*Suaeda californica*) Federal Endangered, CNPS Rank 1B.1. Moderate Potential. California seablite is a perennial herb in the goosefoot family (Chenopodiaceae) that blooms from July to October. It typically occurs on the margins of coastal salt marsh habitat at elevations ranging from 0 to 50 feet (CDFW 2013, CNPS 2013). Observed associated species include salt grass, fat hen, alkali heath, pickleweed, fleshy jaumea, sea rocket (*Cakile maritima*), California sea lavender (*Limonium californicum*), salt marsh dodder (*Cuscuta salina*), and iceplant (*Carpobrotus edulus*) (CDFW 2013).

This species is known from eight USGS 7.5-minute quadrangles in Alameda, Contra Costa, Santa Clara, San Francisco, and San Luis Obispo Counties (CNPS 2013). There are five CNDDDB (CDFW 2013) records in the greater vicinity of the Study Area, 36 CCH (2013) records in Alameda County, four CCH (2013) records in Santa Clara County, and no CCH (2013) records for San Mateo County. The nearest known occurrence is from August 1971, less than five miles northeast of the Study Area on a coastal salt marsh in the Fremont area, Alameda County (CDFW 2013). California seablite has the potential to occur in the seasonal wetlands in the Study Area based on suitable habitat conditions.

Saline clover (*Trifolium hydrophilum*). CNPS Rank 1B.2. Moderate Potential. Saline clover is an annual herb in the pea family (Fabaceae) that blooms from April to June. It typically occurs in mesic, alkali sites in marsh, swamp, valley and foothill grassland, and vernal pool habitat at elevations ranging from 0 to 1495 feet (CDFW 2013, CNPS 2013). This species is a facultative (FAC) plant (Lichvar 2013/2013). Observed associated species include semaphore grass (*Pleuropogon californicus*), salt grass, Italian rye grass, brass buttons (*Cotula coronopifolia*), calico flowers (*Downingia* spp.), Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), hyssop loosestrife (*Lythrum hyssopifolia*), toad rush (*Juncus bufonius*), California oat grass (*Danthonia californica*), purslane speedwell (*Veronica peregrina* ssp. *xalapensis*), meadow barley (*Hordeum brachyantherum*), clovers (*Trifolium microdon*, *T. wormskioldii*, *T. fucatum*), and sand spurry (*Spergularia macrotheca*) (CDFW 2013).

Saline clover is known from 22 USGS 7.5-minute quadrangles in Alameda, Colusa, Monterey, Napa, San Benito, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, Solano, and Sonoma Counties (CNPS 2013). There are 11 CNDDDB (CDFW 2013) records in the greater vicinity of the Study Area, 12 CCH (2013) records from Alameda County, six CCH (2013) records from Santa Clara County, and no CCH (2013) records from San Mateo County. The nearest documented database occurrence is from 1982, less than two miles northeast of the Study Area north of Alviso, Santa Clara County (CDFW 2013). Saline clover has a potential to occur in the Study Area based on the approximate vicinity of the nearest occurrence, the presence of associated species, and known occurrences of this species in similar alkali wetland habitats at the margins of San Francisco Bay. Saline clover was not observed in the projected construction areas during the May 2013 site visit, however, site conditions were not suitable for identification of this species at the time of the site visit based on this species' growth habit.

6.2.2 Special-Status Wildlife Species

Of the 20 special-status wildlife species documented to occur in the vicinity of the Study Area, six were determined to have a moderate to high potential to occur within the Study Area. Many of the species found in the review of background literature and database searches are not found in any of the habitats present within the Study Area. The following six special-status species have the potential to occur within the Baylands seasonal wetlands area, City of Sunnyvale flood control basin, and/or the coastal brackish marsh east of the pump station:

- Salt marsh harvest mouse (*Reithrodontomys raviventris*; Federal Endangered, State Endangered, CDFW Fully Protected)

- Western burrowing owl (*Athene cunicularia*; CDFW Species of Special Concern)
- Northern harrier (*Circus cyaneus*; CDFW Species of Special Concern)
- White-tailed kite (*Elanus leucurus*; CDFW Fully Protected)
- Alameda song sparrow (*Melospiza melodia pusillula*; CDFW Species of Special Concern)
- San Francisco common yellowthroat (*Geothlypis trichas sinuosa*; CDFW Species of Special Concern)

These species and their potential to occur within the Study Area are described in more detail below.

Salt Marsh Harvest Mouse (*Reithrodontomys raviventris*), Federal Endangered Species, State Endangered and CDFW Fully Protected Species. The SMHM is a relatively small rodent found only in suitable salt- and brackish-marsh habitat in the greater San Francisco Bay, San Pablo Bay, and Suisun Bay areas. This species has been divided into two subspecies: the northern SMHM (*Reithrodontomys raviventris halicoetes*) which lives in the brackish marshes of the San Pablo and Suisun Bays, and the SMHM (*Reithrodontomys raviventris raviventris*) which is found in the marshes of San Francisco Bay. The Project Area occurs within the range of the southern subspecies, which generally persists in smaller and more isolated populations than the northern subspecies. Most of the marshes of the South San Francisco Bay in particular are narrow, strip-like marshes and thus support fewer harvest mice than those in the northern portions of the species' range (USFWS 2010).

The basic habitat associated with SMHM has been described as pickleweed- (*Salicornia*-) dominated vegetation (Fisler 1965), though more recent studies have shown that SMHM is supported equally in pickleweed-dominated and mixed-vegetation (including native and non-native salt- and brackish-marsh species) (Sustaita et al. 2005, Sustaita et al. 2011). Known SMHM habitat in the Suisun Bay marshes is often composed of mixed salt- and brackish-marsh vegetation such as rushes, alkali heath, sparscale (*Atriplex triangularis*), and saltgrass (*Distichlis spicata*), with pickleweed as a relatively minor component. The SMHM does not burrow, and thus it is dependent on year-round vegetative cover. As such, the plant species composition is less important than the quality of cover from predators and the food provided by the vegetation. SMHM prefers deep, dense vegetative cover between 11.8 and 23.6 inches [30 – 50 centimeters] in height (USFWS 1984), though there are indicators that shorter stands (5.9 inches [15 centimeters] is the shortest commonly used) of pickleweed may also support an abundance of this species (Fisler 1965; Shellhammer et al. 1982).

Another key habitat requirement for this species is upland or tidal refuge habitat, which is used to escape high tides and storm events that flood portions of its habitat. SMHM is a good swimmer when necessary, but it feeds, nests and seeks cover outside the water, and thus seeks refuge from incoming tides and floods. Tall stands of pickleweed that remain unsubmerged during high tides or floods, as well as gumplant (*Grindelia* sp.), common bulrush (*Schoenoplectus americanus*), natural and artificial dikes and levees, floating debris, and grasslands adjacent to the marsh edge are all potential sources of refuge. Without at least one of these forms of refuge available, SMHM cannot persist in a wetland. Diked marshes are

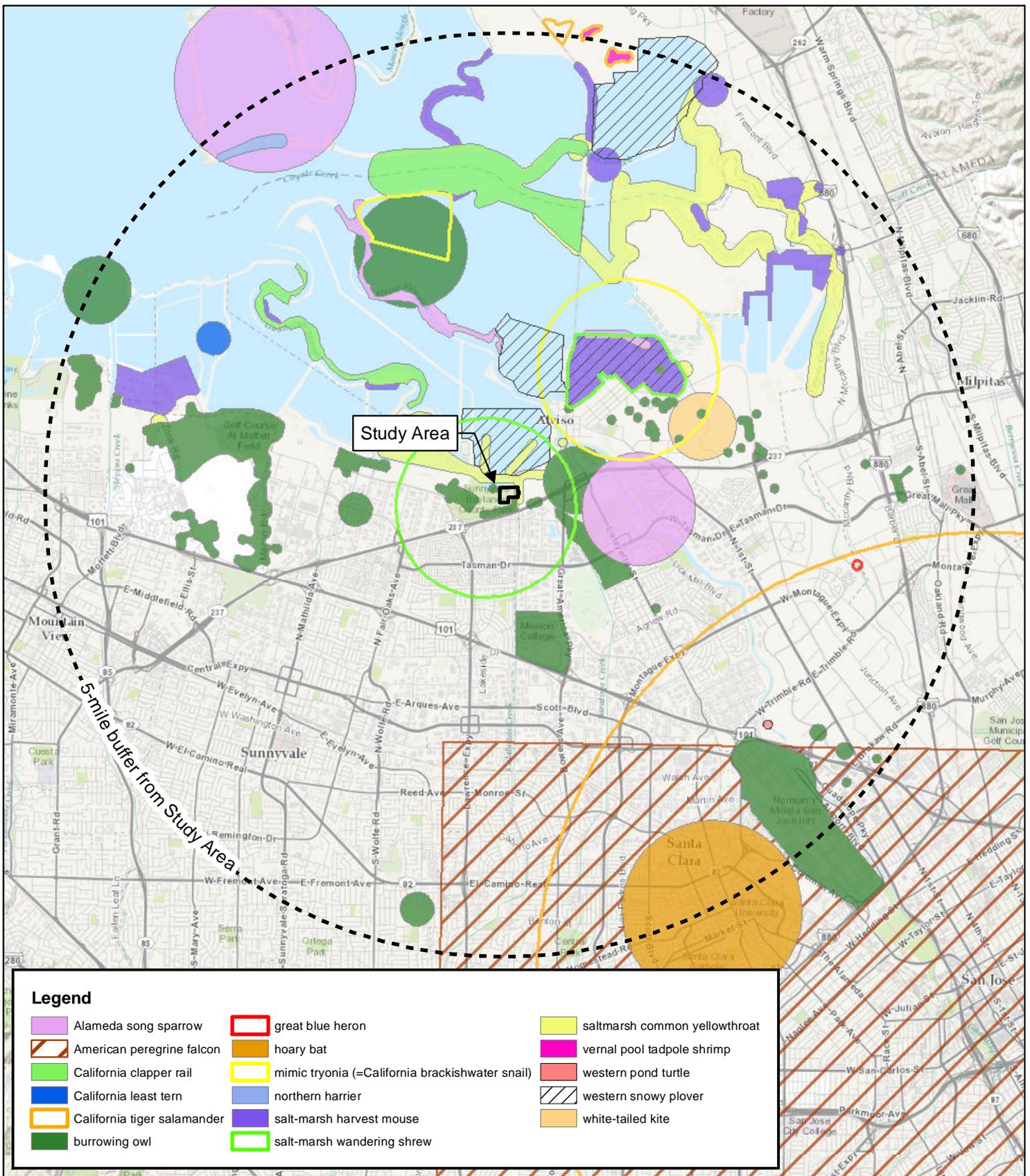
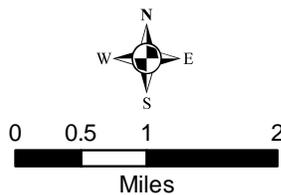


Figure 6. Special Status Wildlife Species within 5 miles of the Study Area

City Pump Station Improvements
Sunnyvale, California



Date: July 2013
Map By: Derek Chan
Map Source: CNDDB

generally not favored where adjacent upland cover has been eliminated, however harvest mice appear to have adapted to these areas where suitable salt- and brackish-marsh vegetation is present (Shellhammer et al. 1982, Geissel 1988, Sustaita et al. 2011).

SMHM habitat must also provide suitable food sources, such as seeds and pickleweed. SMHM tolerates food and water with high salinities, which may give this species a competitive advantage over other small mammal species, though high salinity is not a strict habitat requirement. The presence of grassland habitat adjacent to the marsh is not a strict requirement, either, though the SMHM seasonal use of available upland grasslands (sometimes over 300 feet from the marsh edge) and the relative length of their digestive tracts suggests that they opportunistically feed on grasses as well (USFWS 2010).

Within the Study Area, this species may be present in ruderal grassland and seasonal wetland vegetation communities where substantial vegetation cover is present. This habitat is present in the Baylands seasonal wetlands area and in the flood control basin. Potential onsite habitat is not considered optimal due to the overall low vegetation height and patches of bare ground, which provide no cover for the mouse from predators. The small patch of coastal brackish marsh in the eastern Study Area is unlikely to support mice because it consists of a narrow strip of vegetation growing on steep banks, which appear to be inundated constantly. The mouse may very rarely move through that area in search of refuge from high tides, but it is unlikely to nest there.

As part of the studies performed when the park was initially constructed, protocol-level trapping surveys for SMHM were completed within the Study Area and larger Baylands seasonal wetlands area. The trapping studies did not capture any SMHM (WESCO 1987). However, a dead harvest mouse was found near a burrow along the levee in the far western portion of the seasonal wetlands preserve area. As noted in the previous report, it is unclear if the mouse originated from within the site, or was transported there by the animal that preyed upon it.

Though the diked seasonal wetland habitat is not considered high-quality potential habitat due to the short stature of vegetation present and the lack of cover in some areas, there are no apparent barriers between the Study Area and potential habitat adjacent to the site that would prevent mice from moving into the Study Area. This species has been observed as recently as 1990 within 2 miles of the Study Area, both to the northeast in the New Chicago Marsh and to the northwest in the tidal marsh plain adjacent to Guadalupe Slough (CDFW 2013). Based on the proximity of documented occurrences, the dead harvest mouse found at the site, and marginal quality of onsite habitat, there is a moderate potential for SMHM to occur within the Study Area, and it is likely that USFWS and CDFW will consider the mouse present within the Study Area.

Western burrowing owl (*Athene cunicularia*), CDFW Species of Special Concern; USFWS Bird of Conservation Concern. The burrowing owl typically favors flat, open grassland or gentle slopes and sparse shrub-land ecosystems. These owls prefer annual or perennial grasslands, typically with sparse or nonexistent tree or shrub canopies; however, they also colonize debris piles and old pipes. Burrowing owls exhibit high site fidelity and usually nest in abandoned burrows of ground squirrels or pocket gophers.

Western burrowing owl is a small ground-dwelling owl with a round head and no ear tufts. It has a rounded head with white eyebrows, yellow eyes, and long legs. It is sandy-colored on the head, back, and upper wings with barring on the breast and belly and a prominent white chin stripe. The young are brown on the head, back, and wings with a white belly and chest.

Burrowing owls are comparatively easy to see because they are often active in daylight, and are often bold and approachable.

Western burrowing owl sightings have been documented within the Study Area (WESCO 1987), though none were observed during the August 2012, and May 2013 site visits. Owls have also been documented in CNDDDB to occur within a half mile to the east and west of the Study Area (CDFW 2013). The majority of large burrows observed in the Study Area were surrounded by vegetation that is too tall to provide quality habitat for this species. Potential habitat may be present on upland levees and mounds where vegetation is absent or low in stature. Due to the limited presence of suitable habitat and the close proximity of documented occurrences, there is a moderate potential for this species to occur (forage and/or nest) within the Study Area.

Northern Harrier (*Circus cyaneus*), CDFW Species of Special Concern. Harriers are residents of open wetlands, including marshy meadows; wet, lightly grazed pastures; old fields; freshwater and brackish marshes. They also frequent also dry uplands, including upland prairies, mesic grasslands, drained marshlands, croplands, cold desert shrub-steppe, and riparian woodland throughout California (MacWhirter and Bildstein 1996). Harriers typically nest on ground in open (treeless) habitats in dense, often tall, vegetation. Harriers have extremely varied choice of vegetative cover, even within a single area. Soil types include drained and non-drained wetlands as well as uplands.

The Study Area contains open seasonal wetland and ruderal upland vegetation communities, which are suitable for this species to forage and possibly nest (though the vegetation is not tall). The nearest documented occurrence of this species in CNDDDB is approximately 5 miles from the Study Area (CDFW 2013), though this species is fairly common in the region. Due to the suitability of habitat within the project area and the close proximity of known occurrences, there is a high potential for this species to forage and/or nest within the Study Area.

White-tailed Kite (*Elanus leucurus*), CDFW Fully Protected Species. Kites occur in low elevation grassland, agricultural, wetland, oak woodland, and savannah habitats. Riparian zones adjacent to open areas are also used. Vegetative structure and prey availability seem to be more important than specific associations with plant species or vegetative communities. Lightly grazed or ungrazed fields generally support large prey populations and are often preferred to other habitats. Kites primarily feed on small mammals, although, birds, reptiles, amphibians, and insects are also taken. Nest trees range from single isolated trees to trees within large contiguous forests. Preferred nest trees are extremely variable, ranging from small shrubs (less than 10 ft. tall), to large trees (greater than 150 ft. tall) (Dunk 1995).

No trees suitable for use as a nest tree by white-tailed kite are present within the Study Area. However, open seasonal wetlands and ruderal uplands may provide suitable foraging habitat for this species. The nearest documented occurrence of this species is less than 1.5 miles east of the Study Area (CDFW 2013). Due to the presence of suitable foraging habitat and the close proximity of occurrences, there is a high potential for this species to forage within the Study Area, but there is no potential for this species to nest within the Study Area.

Alameda (South Bay) Song Sparrow (*Melospiza melodia pusillula*), CDFW Species of Special Concern, USFWS Bird of Conservation Concern. This songbird nests in tidal marsh vegetation and adjacent weedy vegetation on levees. It occurs in the salt marshes of the south San Francisco Bay and requires low, dense vegetation such as gumplant for cover and nesting. Within the Study Area, suitable habitat for this species to forage and nest occurs within the seasonal wetland, coastal brackish marsh, and ruderal upland habitat. The nearest documented occurrence of this species is less than 1.5 miles from the site (CDFW 2013).

Based on the suitability of habitat within the Study Area and the proximity of observations of this species, there is a high potential for this species to forage and/or nest within the Study Area.

San Francisco (Saltmarsh) Common Yellowthroat (*Geothlypis trichas sinuosa*), USFWS Bird of Conservation Concern, CDFW Species of Special Concern. This subspecies of the common yellowthroat is found in freshwater marshes, coastal swales, riparian thickets, brackish marshes, and salt marshes. Their breeding range extends from Tomales Bay in the north, Carquinez Strait to the east, and Santa Cruz County to the south. This species requires thick, continuous cover such as tall grasses, tule patches, or riparian vegetation down to the water surface for foraging and prefers willows for nesting. Within the Study Area, the habitat with the greatest potential to support this species is the coastal brackish marsh to the east of the pump station. The remaining onsite habitat is fairly low in stature and has only a low potential to support this species. The nearest documented occurrence of this species is approximately 0.5 mile from the Study Area (CDFW 2013). Within the onsite coastal brackish marsh, there is a high potential for this species to forage and/or nest. In the majority of the Study Area, however, there is only a low potential that this species would forage, and there is extremely limited potential for this species to nest in the seasonal wetlands or ruderal uplands.

7.0 SIGNIFICANCE THRESHOLD CRITERIA

Pursuant to Appendix G, Section IV of the State CEQA Guidelines, a project would have a significant impact on biological resources if it would:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- c) 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, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or,
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

This report utilizes these thresholds in the analysis of impacts and determination of the significance of those impacts. The assessment of impacts under CEQA is based on the change caused by the Project relative to the existing conditions at the proposed Project Site. The existing conditions at the Project Site are described above, based on surveys conducted in 2012 and 2013. In applying CEQA Appendix G, the terms “substantial” and “substantially” are used as the basis for significance determinations in many of the thresholds, but are not defined qualitatively or quantitatively in CEQA or in technical literature. In some cases, such as direct impacts to special-status species listed under the California Endangered Species Act or federal Endangered Species Act, the determination of a substantial impact may be relatively straightforward. In other cases, the determination is less clear, and requires application of best professional judgment based on knowledge of site conditions as well as the ecology and physiology of biological resources present in a given area. Determinations of whether or not Project activities will result in a substantial adverse effect to biological resources are discussed in the following sections for sensitive biological communities, special-status plant species, and special-status wildlife species.

8.0 POTENTIAL IMPACTS, AVODIANCE, MINIMIZATION, AND MITIGATION MEASURES

Two sensitive plant communities were identified within the Study Area. Three special-status plant species and six special-status wildlife species have a moderate, or high potential to occur within the Study Area. Roughly half of the Study Area is comprised of ruderal non-native grassland, which is not considered a sensitive habitat. The other half of the Study Area is comprised of an engineered flood control basin, a seasonal wetland community, and a small portion to the east contains coastal brackish marsh. Seasonal wetland and coastal brackish marsh habitats are considered sensitive communities.

The Project plan includes temporary disturbance of 0.33 acre of non-sensitive habitat and 0.02 acre of sensitive habitat from the installation and improvement of inlet structures, the increase in the storage capacity immediately adjacent to the pump station, and the replacement of outfall structures. No permanent impacts to sensitive or non-sensitive habitats are anticipated for this Project. No large structures or substantial changes to the accessibility of the area for migrating wildlife will result from the project; therefore, no significant impacts to wildlife migratory corridors will occur as a result of the Project. Potentially significant impacts as a result of the project, as well as avoidance, minimization and mitigation measures are discussed below.

8.1 Sensitive Biological Communities

About half of the Project Area is comprised of developed and ruderal areas (including the flood control basin), which are not sensitive biological communities, and impacts to those community types are not considered significant under CEQA or NEPA. The Study Area contains 8.88 acres of existing seasonal wetlands and 0.11 acre of coastal brackish marsh potentially within the jurisdiction of the Corps under Section 404 of the Clean Water Act and RWQCB under the Porter Cologne Act and Section 401 of the Clean Water Act. Impacts to these wetland communities are required to be reviewed for significance under CEQA. A jurisdictional wetland delineation has been performed in the Study Area and will be submitted to the Corps for verification.

Table 1 lists the biological communities found within the Study Area, as well as the acreage and potential impacts to each. Figure 7 shows the areas of construction overlaid with the biological communities on site.

| Table 1. Impacts to Biological Communities within the Study Area. | | |
|---|--------------|-----------------------------------|
| Community Type | Area (acres) | Temporarily Impacted Area (acres) |
| Developed land | 0.38 | 0 |
| Ruderal uplands | 3.72 | 0.03 |
| Coastal brackish marsh | 0.11 | 0.02 |
| Seasonal wetland | 8.88 | 0 |
| Detention Basin | 0.10 | 0.10 |
| Flood control basin | 3.80 | 0.20 |
| Total | 16.99 | 0.35 |

8.1.1 Potential Impacts

No permanent impacts to sensitive biological communities are anticipated from the Project (see Table 1). Impacts to non-sensitive biological communities are considered less than significant under CEQA. The Project improvements proposed for the Study Area, which affect sensitive biological communities, are evaluated in more detail below.

Improvements to the Existing Pump Station Structure

The pump station rehabilitation includes only structural updates and mechanical improvements. The existing structure and the surrounding paved and graveled areas do not support any sensitive vegetation communities or waters. No permanent, temporary, or operational impacts to sensitive vegetation communities are anticipated from the pump station improvement work.

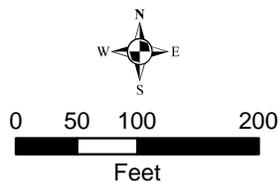
Improvements to the Flood Control Basin and Creek Outfalls

Improvements to the flood control basin and creek outfalls are proposed for the Study Area. A portion of the existing flood control basin would be excavated, increasing the total flood control capacity within the flood control basin. The proposed deepened excavated area referred to as the detention basin will be 58 feet by 58 feet, and will be composed of natural earth similar to the existing trapezoidal channel that crosses the existing flood control basin. The material excavated from the detention basin will be deposited in the southeast corner of the flood control basin, which does not support jurisdictional wetlands, water features, or other sensitive biological communities. Concrete work is proposed for raising the existing trash rack walls and modifying the angle structure on the influent 84" pipe just outside the detention basin. No sensitive biological communities will be impacted as a result of excavation in the flood control basin. As discussed above, the flood control basin is an engineered basin constructed for the purposes of flood control and is therefore not a sensitive habitat under CEQA.



Figure 7. Impacts to Biological Communities within the Study Area

City Pump Station Improvements
Sunnyvale, California



Date: October 2013
Map By: Derek Chan
Base Source: Microsoft 2010

The existing creek outfalls will also be replaced to rehabilitate the Baylands Pump Station #2, which is anticipated to result in approximately 0.02 acre of temporary impacts to coastal brackish marsh present along the banks of the creek. Based on the existing conditions in Calabazas Creek, impacts from the replacement of the outfalls are expected to be temporary in nature. A portion of the creek slope would be excavated to the depth of the existing rip rap slope to cap the old outfall pipes, and raise the elevation of the outfalls above the waters of the creek. To stabilize the slope, additional rock rip rap protection will be added to the existing layer of rip rap on the bank of the creek in the area of the outfalls (Figure 7). These activities would result in the removal of sediment that has settled on top of the existing rip rap and associated wetland vegetation that has colonized the area. These impacts are considered temporary because the existing bank of Calabazas Creek is comprised of riprap, and the Project is not changing this existing condition. Based on the abundance of sediment observed in the area during the site visit, it is anticipated that the area of disturbance will fill with sediment and the slope will become revegetated naturally in the course of two to three growing seasons. Additionally, the area of construction disturbance is small enough at 0.02 acre to mimic the occurrence of a gap in vegetation resulting from a natural disturbance event. Based on the small footprint of the excavation, existing conditions of the riprap along the creek banks of a trapezoidal channel, and the expectation that the area will become revegetated in a short period of time, the temporary impacts to the stream bank are not anticipated to substantially adversely affect the function and condition of the coastal brackish marsh along the banks of Calabazas Creek. Therefore, the temporary impacts are considered less than significant under CEQA. Still, these temporary impacts will require permits from the Corps, RWQCB, BCDC, and CDFW. The mitigation standards for those permits are different from the standards under CEQA. Monitoring of the area and/or mitigation in some form may be required by the resource agencies as part of the permitting process.

Improvements to Larger Baylands Seasonal Wetlands Area

Construction of the new junction structure just outside of the southwest corner of the flood control basin will result in impacts only to areas of ruderal uplands located in the Baylands Seasonal Wetland Preserve. All impacts from the installation of the new inlets are considered temporary, and the area will be revegetated with hydroseed or broadcast seed following construction. Project construction would not result in temporary or permanent impacts to the adjacent seasonal wetlands. These temporary impacts are not considered significant under CEQA.

During storm events above the 50-year frequency, additional waters could enter the Baylands seasonal wetlands area on County property. During a storm of this magnitude, the seasonal wetlands area would likely already be inundated with water and the volume released from the City system would return to the pump station within 24 hours after the storm subsides. The duration of ponding may be longer than 24-hours for rare storm events, such as the 100-year storm event. The proposed Project improvements will not result in a change to existing hydrological conditions in the seasonal wetland area at the more regularly occurring storm events, up to the 50-year frequency.

Hydrology is the primary influencing factor in wetland condition and function, and changes to hydrology in a seasonal wetlands area can result in changes to the vegetation communities and function of those areas. Increases in the frequency and duration of ponding can result in a decrease in vegetation cover, and/or changes to the vegetation present in a wetland. Decreases in the frequency and duration of ponding can reduce the area of wetlands present in a location. The Project will result in minor changes to the frequency of ponding in the seasonal wetlands area, increasing ponding only during rain events greater than the 50-year storm.

Because the Project is designed to drain any increased ponding within a short period of time, no substantial change to the duration of ponding is anticipated. The short-duration and infrequent increases in ponding are not anticipated to result in a substantial adverse effect to the seasonal wetlands area because the improvements will not change the existing conditions for the more regularly occurring flood frequencies (i.e., 2-year, 5-year, and 10-year). The increase in water depth in the seasonal wetland area is anticipated to be a maximum of 0.5 feet during the 100-year storm. The most influential storm events for wetland function and condition are the more frequent storm events. The increase in short duration, shallow, and infrequent ponding during flood events are not enough of a disturbance to result in substantial adverse impacts to the seasonal wetlands. Therefore, the Project is not expected to have a substantial adverse effect on the seasonal wetlands during system operation.

Plant species that are present in the Baylands seasonal wetland area are adapted to life in salt marshes, which flood to depths of up to one foot twice daily, and at greater depths during regularly occurring higher tides (Atwater 1979). Under current conditions, the seasonal wetlands are subject to seasonal saturation and/or ponding (depending on location) during the rainy season. During times of high rainfall, the Baylands seasonal wetlands area may be flooded at a greater depth, as is the case for surrounding areas. A study of salt marsh disturbance in Bolinas Lagoon, Marin County, found that saltgrass, pickleweed and alkali heath successfully recovered from repeated disturbance by flooding and sedimentation within five years, achieving at least 80 percent cover across the study area (Allison 1996). A similar study located in the Elkhorn Slough Watershed found that although heavy sedimentation led to loss of pickleweed, the plant has a relatively high tolerance to flooding and persisted despite colonization by cattail and arroyo willow (Byrd and Kelly 2006)¹. Similarly, pickleweed was observed to respond quickly to disturbance from flooding in a study performed by Zedler et al. (1986). Based on the available scientific literature, no long-term significant impacts to the seasonal wetland community within the Study Area are anticipated to result from this Project.

Staging Areas and Access

All Project staging and access during construction work will occur in existing developed areas and will avoid impacts to sensitive biological communities. No impacts to sensitive biological communities are expected from staging and access during Project work.

8.1.2 Avoidance, Minimization, and Mitigation Measures

To avoid unforeseen impacts to wetlands surrounding the areas of disturbance in Calabazas Creek and at the 84-inch junction structure, it is recommended that the wetland boundaries and areas of disturbance be flagged prior to construction by a qualified biologist to guide installation of silt or exclusion fencing in the areas at the margins of areas of construction disturbance. Upon project completion, the temporarily disturbed areas would be modified to match the surrounding wetland grade and revegetated with appropriate native plants.

Measures were considered for revegetation in the areas of disturbance along Calabazas Creek and were determined to not be feasible due to the potential for those revegetation efforts to affect the function of the creek as a flood control channel. Revegetation would require the placement of soil and plant material in the interstitial spaces in the riprap, and this unnatural deposition is anticipated to be washed away by discharge from the pump house outfalls. This sediment and plant materials would enter and settle in Calabazas Creek, potentially reducing

¹Flooding in this study was much more frequent than is anticipated to result from the project.

the capacity of the creek to carry floodwaters. As previously described, based on the abundance of sediment observed in the area of Calabazas Creek during the site visit, it is anticipated that the supplemental rip rap areas will fill with sediment and the bank slope will become revegetated naturally in the course of two to three growing seasons.

Based on the small footprint of the excavation, existing conditions of the riprap along the creek banks of a trapezoidal channel, and the expectation that the area will become revegetated in a short period of time, the temporary impacts to the stream bank are not anticipated to substantially affect the function and condition of the coastal brackish marsh along the banks of Calabazas Creek.

8.2 Special-Status Plant Species

Of the 95 special-status plant species documented from the vicinity of the Project Area, three species have the potential to occur within alkali wetland portions of the Project Area: Alkali milk-vetch, California seablite, and Saline clover. Appropriately timed surveys should also be completed in April or early May (depending on the rainy season) prior to project construction to document the presence or absence of these three species within the Project Area. If the species are observed, measures to avoid or minimize potential impacts should be implemented as described below. If the species are not observed, no further actions would be needed. Each of these special-status plant species potentially on-site may fall under the jurisdiction of the CDFW under CEQA, and two of these fall under the jurisdiction of the USFWS under ESA: Contra Costa goldfields and California seablite.

8.2.1 Potential Impacts

The Project work is anticipated to temporarily impact 0.02 acre of coastal brackish marsh within the Study Area during the repair and replacement of existing storm drain outfalls. Based on the prevalence of tall (greater than six feet), weedy vegetation in Calabazas Creek, it is not anticipated that any rare plant species would occur in that area. If rare plant species are present in the areas of construction and access in the flood control basin and at the junction structure, direct impacts could occur to those species during construction. The operation of the flood control facility is not anticipated to result in substantial adverse effects to rare plant species based on the infrequent timing and short duration of the increased flooding resulting from the Project.

8.2.2 Avoidance, Minimization, and Mitigation Measures

If special-status plant species are observed in the Study Area they will be flagged by a qualified biologist for avoidance during construction. If avoidance is not feasible, individuals will be transplanted to suitable undisturbed habitat, or seed will be collected for replanting following construction. The method of mitigation would be selected based on the specific species observed (if any) and the efficacy of each method in successfully re-establishing the observed species.

8.3 Special-Status Wildlife Species

Of the 20 special-status wildlife species known to occur in the vicinity of the Study Area, six were determined to have the potential to occur in the Study Area. Most of the species found in the review of background literature occur in habitats not found in the Study Area. Habitat suitability for marsh-associated species in the Study Area is reduced due to lack of tidal influence. In addition, aquatic habitat on-site is ephemeral and disturbed due to flood control levees and drains leading to the pump station. Barriers to many aquatic species exist between

the onsite floodwaters and offsite aquatic habitat, and the waters do not pond for a sufficient duration to be considered suitable for use as breeding habitat by special-status invertebrates, reptiles, amphibians, or fish species found in the region.

California clapper rail is not anticipated to be present in the Project Area due to the lack of suitable tidal marsh habitat, which means that foraging and nesting within the Study Area are very unlikely to occur. There is a small portion of emergent tidal habitat within the Study Area and in nearby sloughs, however these areas are relatively linear channels dominated by cattails and bulrush, and not in close proximity to quality foraging habitat. Therefore, coastal brackish marsh within and adjacent to the Study Area is not considered suitable nesting habitat for clapper rails. No significant impacts to California clapper rail foraging or nesting habitat are anticipated as a result of the proposed Project.

The pump station rehabilitation includes only structural updates and mechanical improvements. The existing structure is not anticipated to support any special wildlife status species, and no impacts to special-status species due to pump station rehabilitation activities are anticipated.

Special-status wildlife species potentially found in the Study Area may fall under the jurisdiction of USFWS under the ESA and Migratory Bird Treaty Act, and/or the CDFW under CESA and CEQA.

8.3.1 Potential Impacts

Salt Marsh Harvest Mouse

Because the presence of SMHM cannot be ruled out for the Baylands seasonal wetland area, it must be presumed that project construction activities, including ground disturbance and vegetation removal, have the potential to result in impacts to this species.

Impacts to the SMHM may occur during vegetation removal within the flood control basin, and within the Baylands Wetland Preserve to access and improve the junction structure. This species may inhabit dense grass or marsh plant communities in these areas, and removal of this vegetation may impact the mouse directly if no avoidance or minimization measures are implemented. Additionally, bringing large equipment or vehicles into the flood control basin or Baylands may also directly impact mice if sufficient avoidance measures are not implemented. Vegetation removal would also result in temporary impacts to potential SMHM upland habitat.

Salt marsh harvest mice are adapted to life in conditions of flooding, and are adapted to escape flooding by fleeing to higher ground and/or higher growing plants. They are also known to be able to swim for small distances. Based on the salt marsh harvest mouse's ability to avoid flooding, and the availability of areas for the mouse to take refuge during flood events, it is not anticipated that the short duration and infrequent increase in flooding in the Baylands seasonal wetland area would result in a significant impact to this species.

Western Burrowing Owl

Although no evidence of burrowing owl presence was observed during the site visit, suitable burrow habitat was present on several mounds in the Baylands and along the berms of the flood control basin, and these areas may become occupied in the future. If burrowing owls move into the Study Area prior to construction, they may be impacted directly through movement of machinery, or indirectly through the temporary noise disturbance and/or temporary removal of

foraging or nesting habitat. The areas of construction and excavation do not support suitable burrowing owl habitat, and are located in flat land without suitable small mammal burrows.

An increase in flooding from project implementation is not anticipated to affect the Western burrowing owl. The increase in flooding could theoretically affect burrowing owls and their habitat if the depth changed substantially enough to affect owl mortality compared to existing conditions. However, this potential impact is only speculative. Flooding would occur only during an unpredictable and stochastic event and would subside within 24 hours of the end of the storm. Based on the Project design, which is anticipated to result in an extremely short-duration, minimal depth, and infrequent flood increase, the Project is not expected to adversely affect burrowing owl in the long-term.

Special-Status and Common Birds (including northern harrier, white-tailed kite, Alameda song sparrow, and San Francisco common yellowthroat)

Removal of vegetation and movement of heavy machinery through the Baylands seasonal wetlands area has the potential to result in impacts to nesting birds, including the special-status species northern harrier, white-tailed kite, Alameda song sparrow, San Francisco common yellowthroat, and Western burrowing owl, if present. Special-status and other native bird species are protected during the nesting season by the Migratory Bird Treaty Act and Fish and Game Code, as well as CEQA. Vegetation removal could harm bird nests, eggs or young, either through direct contact or by exposing eggs or young to predators.

8.3.2 Avoidance, Minimization, and Mitigation Measures

Salt Marsh Harvest Mouse

SMHM is defined by California Fish and Game Code as a Fully Protected Species, and thus, the Project must avoid direct mortality of this species. Potential impacts to SMHM will be avoided through installation of exclusion fencing to exclude SMHM individuals from areas of active construction, presence of a qualified biological monitor during installation of exclusion barriers, and a contractor sensitivity program. If removal of any wetland or ruderal grassland vegetation is necessary, it will be conducted in the presence of a biological monitor using only hand tools during the breeding season (March 1 – November 30) or hand-held mechanized tools during the non-breeding season (December 1 – February 28).

The exclusion fence will be made of a material that does not allow harvest mice to pass through, and the bottom will be buried to a depth of six inches so that mice cannot crawl under the fence. All structural support for the exclusion fencing will be placed on the inside of the construction area. The areas inside the fence will be cleared of vegetation in the presence of a biological monitor, and the fence will be placed around areas of earthwork, including excavation and stockpiling of fill material in the flood control basin, and around the inlet improvement areas if ground disturbance will occur. The coastal brackish marsh within the Study Area will be cleared of vegetation and surrounded by silt fence as an erosion control measure, and although it is unlikely that the SMHM would occur in this area, the erosion control measures will double as extra assurance that SMHM will not enter the work area. All exclusion fences will be inspected daily for holes and gaps, and repaired as soon as deficiencies are detected.

The biological monitor will have demonstrated experience in monitoring sensitive resource issues on construction projects and knowledge of the biology of SMHM. The biological monitor would be the contact person for any employee or contractor who might inadvertently kill or injure a listed species or anyone who finds a dead, injured, or entrapped SMHM. The biological monitor will provide an endangered species training program to all personnel involved in project

construction. At a minimum, the employee education program will consist of a brief presentation by persons knowledgeable about SMHM biology and legislative protection to explain concerns to contractors and their employees involved with implementation of the Project. The program will include a description of this species and its habitat needs, any reports of occurrences in the action area; an explanation of the status of this species and its protection under state and federal legislation; and a list of measures being taken to reduce impacts to this species during the work.

Western Burrowing Owl

Although no burrowing owls were present during the initial site visit, they may move into the Study Area prior to construction and should be avoided, if possible. A biologist will conduct a pre-construction survey for burrowing owl within 14 days prior to the initiation of construction activities within the Study Area. If an active burrowing owl burrow is detected, the biologist will establish an exclusion buffer around the owl's burrow where no construction, access, or staging is permitted unless the owl is determined by the biologist to have migrated out of or abandoned its burrow in the Study Area. The biologist may also decide that it is necessary to establish screens around the owl burrow, depending on its placement relative to construction activities and the time of year, to buffer this species from visual disturbance from construction activities.

Special-Status and Common Birds

Potential significant impacts to nesting special-status birds may be mitigated through avoiding disturbance to active nests. Construction during the active nesting season for breeding birds (February 1 – August 31) will be avoided as much as feasible in areas that are not currently developed. For areas where direct impacts to vegetation will occur, impacts to birds can be avoided by removing vegetation outside of the bird breeding season to avoid potential delays in construction schedule due to breeding activity. If construction during the breeding season cannot be avoided, pre-construction breeding bird surveys will be conducted within 14 days of ground disturbance to avoid disturbance to active nests, eggs, and/or young of ground-nesting birds. Surveys can be used to detect the nests of special-status as well as non-special-status birds. An exclusion zone where no construction would be allowed will be established around any active nests of any avian species found in the Study Area until a qualified biologist has determined that all young have fledged. Suggested exclusion zone distances differ depending on species, location, and placement of nest, and will be at the discretion of the biologist and, if necessary, USFWS and CDFW.

9.0 CONCLUSION

Based on the project description, the following permits are anticipated to be necessary:

- U.S. Army Corps of Engineers (Corps) Section 404 Nationwide Permit
- Regional Water Quality Control Board Section 401 Certification
- San Francisco Bay Conservation and Development Commission (BCDC) permit

Based on the work to be completed in Calabazas Creek, it is also anticipated that an application for a Lake or Streambed Alteration Agreement from the California Department of Fish and Wildlife will be necessary. Because the presence of SMHM cannot be ruled out for the project site, consultation may be required with the USFWS as part of the Corps permit process. It is also important to note that SMHM is a fully-protected species under CDFW code, and take is not allowed of this species under those regulations. The project is not anticipated to result in take of SMHM or any other listed species.

Based on a review of past documents, it is apparent that preservation of the wetlands on the Baylands site has been a priority for the County, public, and regulatory agencies since its inception in the 1970's. The proposed Project has been designed to avoid any permanent or long-term impacts to biological resources. Direct impacts to SMHM and western burrowing owl, as well as temporary impacts to habitat for these two species, may occur during project construction if no avoidance measures are implemented. Similarly, project activities have the potential to impact nesting birds if no avoidance measures are implemented. With the implementation of the avoidance and minimization measures described above, such as pre-construction surveys during the avian breeding season, and management and monitoring during construction to avoid potential impacts to salt marsh harvest mouse, no adverse effects to special-status species are anticipated.

The Study Area has sensitive biological communities including coastal brackish marsh and seasonal wetlands. No permanent, temporary, or operational impacts to sensitive vegetation communities are anticipated from the pump station improvement work or as a result of excavation in the flood control basin. The replacement of existing creek outfalls for Baylands Pump Station #2 is anticipated to result in approximately 0.02 acre of temporary impacts to coastal brackish marsh along the banks of the Calabazas Creek. These impacts are considered temporary because the existing creek bank of riprap will be replicated by the placement of supplemental rock rip rap, and it is anticipated that the area will fill with sediment and become revegetated in the course of two to three growing seasons. Based on the small footprint of the excavation, existing conditions of the riprap along the creek banks of a trapezoidal channel, and the expectation that the area will become revegetated in a short period of time, the temporary impacts to the stream bank are not anticipated to substantially affect the function and condition of the coastal brackish marsh along the banks of Calabazas Creek, and therefore, are considered less than significant under CEQA.

During Project construction, temporary impacts to ruderal uplands will result from the modifications to the junction structure southwest of the flood control basin. It is anticipated that impacts to seasonal wetland areas can be avoided during construction and all impacts from the installation of the new inlets are considered temporary. Similar infrastructure is in place under existing conditions, and the Project would replace that existing infrastructure. These temporary impacts are not anticipated to substantially adversely affect the seasonal wetlands area, and are not considered significant under CEQA.

Three special-status plant species were evaluated with the potential to occur within alkali wetland portions of the Project Area including Alkali milk-vetch, California seablite, and Saline clover. These species were not observed during the survey of construction areas completed in May 2013, but conditions were not suitable at that time for observing these species given their growth habits and the rainfall during 2013. Prior to project construction, appropriately timed surveys should be completed to document the presence or absence of these species within the Project Area. If the species are observed, measures to avoid or minimize potential impacts should be implemented such as flagging the individuals for avoidance during construction; however, if avoidance is not feasible, individuals will be transplanted to suitable undisturbed habitat, or seed will be collected for replanting following construction. The method of mitigation would be selected based on the specific species observed (if any) and the efficacy of each method in successfully re-establishing the observed species. If the species are not observed, no further actions would be needed.

Additionally, due to the short duration and low frequency of flood events that would occur in the marsh with Project implementation, no project-related impacts to species or habitats within the Study Area are likely to occur post-construction.

10.0 REFERENCES

- Allison, SK. 1996. Recruitment and establishment of salt marsh plants following disturbance by flooding. *American Midland Naturalist* 136(2). 232-247. Online at: <http://www.jstor.org/stable/2426728>. Accessed 9 October 2012.
- Atwater, BF, S. G Conard, JN Dowden, CW Hedel, RL MacDonald and W Savage (1979). History, landforms, and vegetation of the Estuary's tidal marshes. In *San Francisco Bay: the Urbanized Estuary; Investigations into the Natural History of San Francisco Bay and Delta with Reference to the Influence of Man.*, edited by TJ Conomos, AE Leviton and M Berson. Pacific Division of the American Association for the Advancement of Science, San Francisco, CA. 347-385.
- Byrd, K. and M. Kelly. 2006. Salt marsh vegetation response to edaphic and topographical changes from upland sedimentation in a Pacific estuary. *Wetlands* 26(3): 813-829.
- Calflora: Information on California plants for education, research and conservation, based on data contributed by dozens of public and private institutions and individuals, including the Consortium of Calif. Herbaria. [web application]. 2013. Berkeley, California: The Calflora Database [a non-profit organization]. Available: <http://www.calflora.org/> (Accessed: Jul 01, 2013).
- [CCH] Consortium of California Herbaria. 2013. Data provided by the participants of the Consortium of California Herbaria. Available at: <http://ucjeps.berkeley.edu/consortium>. Accessed: June 2013.
- [CDFG] California Department of Fish and Game. 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code. Environmental Services Division, Sacramento, CA.
- [CDFW] California Department of Fish and Wildlife. 2013. California Natural Diversity Database. Wildlife and Habitat Data Analysis Branch, Sacramento, CA.
- [CNPS] California Native Plant Society. 2013. Inventory of Rare and Endangered Plants of California. California Native Plant Society, Sacramento, California. Online at: <http://www.rareplants.cnps.org>; most recently accessed: October 2013.
- [Corps] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.
- Corps and the Environmental Protection Agency. 2007. U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook.
- Dunk, JR. 1995. White-tailed Kite (*Elanus leucurus*). In *The Birds of North America*, No. 178 (A Poole and F Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.

- Fisler, GF. 1965. Adaptations and speciation in harvest mice of the marshes of San Francisco Bay. University of California Publications in Zoology 77: 1-108.
- Geissel, WH, H Shellhammer, and HT Harvey. 1988. The ecology of the salt marsh harvest mouse (*Reithrodontomys raviventris*) in a diked salt marsh. Journal of Mammalogy 69: 696-703.
- Holland, RF. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Prepared for the California Department of Fish and Game, Sacramento, California.
- Jennings, MR, and MP Hayes. 1994. Amphibians and Reptile Species of Special Concern in California. California Department of Fish and Game.
- Lichvar, R.W. 2013. The National Wetland Plant List: 2013 wetland ratings. Phytoneuron 2013-49: 1-241.
- MacWhirter, RB, and KL Bildstein. 1996. Northern Harrier (*Circus cyaneus*). In The Birds of North America, No. 210 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C.
- Miller, RC and JB Zedler. 2003. Responses of native and invasive wetland plants to hydroperiod and water depth. Plant Ecology 167 (2003) 57-69. Online at: <http://www.botany.wisc.edu/zedler/images/MillerPI.Ecol.pdf>. Accessed 8 October 2012.
- [NRCS] Natural Resources Conservation Service. 2010. Field Indicators of Hydric Soils in the United States, version 7.0. In cooperation with the National Technical Committee for Hydric Soils, Fort Worth, TX.
- Newman, S, JJ Grace, and JW Koebel. 1996. Ecological Applications 6(3) 774-783. Online at: <http://www.briarcliff.edu/departments/biol/BIOL%2052IR/Effects%20of%20Nutrients%20and%20Hydroperiod%20on%20Typha.pdf>. Accessed 8 October 2012.
- Reed, PB Jr. 1988. National List of Plant Species That Occur in Wetlands: National Summary. U.S. Fish & Wildlife Service. Biol. Rep. 88 (24).
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, 2nd Edition. California Native Plant Society in collaboration with California Department of Fish and Game. Sacramento, CA. 1300 pp.
- Shellhammer, HS, R Jackson, W Davilla, AM Gilroy, HT Harvey, and L Simons. 1982. Habitat Preferences of Salt Marsh Harvest Mice (*Reithrodontomys raviventris*). The Wasmann Journal of Biology. Vol: 40(1-2). pp. 102-144.
- Shuford, WD, and T Gardali (eds). 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and CDFG, Sacramento.
- Stebbins, RC. 2003. A Field Guide to Western Reptiles and Amphibians, third edition. The Peterson Field Guide Series, Houghton Mifflin Company, NY.

- Sustaita, D, L Barthman-Thompson, P Quickert, L Patterson, and S Estrella. 2005. Annual Salt Marsh Harvest Mouse Demography and Habitat Use in Suisun Marsh Conservation Areas. Presentation at the CALFED Science Conference.
- Sustaita, D, PF Quickert, L Patterson, L Barthman-Thompson, S Estrella. 2011. Salt Marsh Harvest Mouse Demography and Habitat Use in the Suisun Marsh, California. *The Journal of Wildlife Management* 75(6): 1498-1507.
- [USFWS] US Fish and Wildlife Service. 2010. Salt marsh harvest mouse (*Reithrodontomys raviventris*) 5-Year Review: Summary and Evaluation. Sacramento, California. 49 pp. February 16.
- USFWS. 1984. Salt marsh harvest mouse and California clapper rail recovery plan. Portland, Oregon.
- USFWS. 2012. Species Lists, Sacramento Fish and Wildlife Office. Available online at: <http://www.fws.gov/sacramento>.
- [WESCO] Western Ecological Services Company, Inc. 1987. Letter to Dr. Michael Josselyn Re: Live Trapping Study of Salt Marsh Harvest Mouse (*Reithrodontomys raviventris*) at the Sunnyvale Baylands Park. June 9.
- Zedler, JB and PA Beare. 1986. Temporal variability of salt marsh vegetation: The role of low-salinity gaps and environmental stress, p. 295-306. In DA Wolfe (ed.), *Estuarine Variability*. Academy Press, San Diego.
- Zeiner, DC, WF Laudenslayer, Jr., KE Mayer, and M White. 1990. California's Wildlife, Volume I-III: Amphibians and Reptiles, Birds, Mammals. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, CA.

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APPENDIX A

Special-Status Species Evaluation

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CNDDDB List of Special Status Species

Accessed: 6/7/2013

| ScientificName | CommonName | ElementCode | OccurrenceTotal | GlobalRank | StateRank | FederalStatus | StateStatus | RarePlantRank | OtherStatus | Habitat |
|-------------------------------------|-----------------------------|-------------|-----------------|------------|-----------|---------------|-------------|---------------|--|--|
| Agelaius tricolor | tricolored blackbird | ABPBX80020 | 428 | G2G3 | S2 | None | None | | ABC_WLBCC-Watch List of Birds of Conservation Concern BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered USFWS_BCC-Birds of Conservation Concern | Freshwater marsh Marsh & swamp Swamp Wetland |
| Ambystoma californiense | California tiger salamander | AAAAA01180 | 1055 | G2G3 | S2S3 | Threatened | Threatened | | CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable | Cismontane woodland Meadow & seep Riparian woodland Valley & foothill grassland Vernal pool Wetland |
| Ardea herodias | great blue heron | ABNGA04010 | 132 | G5 | S4 | None | None | | CDF_S-Sensitive IUCN_LC-Least Concern | Brackish marsh Estuary Freshwater marsh Marsh & swamp Riparian forest Wetland |
| Astragalus tener var. tener | alkali milk-vetch | PDFAB0F8R1 | 65 | G2T2 | S2 | None | None | 1B.2 | | Alkali playa Valley & foothill grassland Vernal pool Wetland |
| Charadrius alexandrinus nivosus | western snowy plover | ABNNB03031 | 120 | G4T3 | S2 | Threatened | None | | ABC_WLBCC-Watch List of Birds of Conservation Concern CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern | Great Basin standing waters Sand shore Wetland |
| Chloropyron maritimum ssp. palustre | Point Reyes bird's-beak | PDSCROJ0C3 | 61 | G4?T2 | S2.2 | None | None | 1B.2 | BLM_S-Sensitive | Marsh & swamp Salt marsh Wetland |
| Circus cyaneus | northern harrier | ABNKC11010 | 43 | G5 | S3 | None | None | | CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern | Coastal scrub Great Basin grassland Marsh & swamp Riparian scrub Valley & foothill grassland Wetland |
| Egretta thula | snowy egret | ABNGA06030 | 15 | G5 | S4 | None | None | | IUCN_LC-Least Concern | Marsh & swamp Meadow & seep Riparian forest Riparian woodland Wetland |
| Elanus leucurus | white-tailed kite | ABNKC06010 | 157 | G5 | S3 | None | None | | BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern | Cismontane woodland Marsh & swamp Riparian woodland Valley & foothill grassland Wetland |
| Emys marmorata | western pond turtle | ARAAD02030 | 1135 | G3G4 | S3 | None | None | | BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive | Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh & swamp Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland |

CNDDDB List of Special Status Species

Accessed: 6/7/2013

| ScientificName | CommonName | ElementCode | OccurrenceTotal | GlobalRank | StateRank | FederalStatus | StateStatus | RarePlantRank | OtherStatus | Habitat |
|-------------------------------------|----------------------------------|-------------|-----------------|------------|-----------|---------------|-------------|---------------|---|--|
| Eryngium aristulatum var. hooveri | Hoover's button-celery | PDAPI0Z043 | 10 | G5T2 | S2.1 | None | None | 1B.1 | | Vernal pool Wetland |
| Geothlypis trichas sinuosa | saltmarsh common yellowthroat | ABPBX1201A | 111 | G5T2 | S2 | None | None | | CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern | Marsh & swamp |
| Lasthenia conjugens | Contra Costa goldfields | PDA5T5L040 | 34 | G1 | S1 | Endangered | None | 1B.1 | | Alkali playa Cismontane woodland Valley & foothill grassland Vernal pool Wetland |
| Laterallus jamaicensis coturniculus | California black rail | ABNME03041 | 241 | G4T1 | S1 | None | Threatened | | ABC_WLBCC-Watch List of Birds of Conservation Concern BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened USFWS_BCC-Birds of Conservation Concern | Brackish marsh Freshwater marsh Marsh & swamp Salt marsh Wetland |
| Legenere limosa | legenere | PDCAM0C010 | 78 | G2 | S2.2 | None | None | 1B.1 | BLM_S-Sensitive | Vernal pool Wetland |
| Melospiza melodia pusillula | Alameda song sparrow | ABPBXA301S | 38 | G5T2? | S2? | None | None | | CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern | Salt marsh |
| Navarretia prostrata | prostrate vernal pool navarretia | PDPLM0C0Q0 | 60 | G2 | S2 | None | None | 1B.1 | | Coastal scrub Valley & foothill grassland Vernal pool Wetland |
| Northern Coastal Salt Marsh | Northern Coastal Salt Marsh | CTT52110CA | 53 | G3 | S3.2 | None | None | | | Marsh & swamp Wetland |
| Plagiobothrys glaber | hairless popcornflower | PDBOR0V0B0 | 9 | GH | SH | None | None | 1A | | Marsh & swamp Salt marsh Vernal pool Wetland |
| Rallus longirostris obsoletus | California clapper rail | ABNME05016 | 92 | G5T1 | S1 | Endangered | Endangered | | ABC_WLBCC-Watch List of Birds of Conservation Concern CDFW_FP-Fully Protected | Brackish marsh Marsh & swamp Salt marsh Wetland |
| Rana draytonii | California red-legged frog | AAABH01022 | 1327 | G4T2T3 | S2S3 | Threatened | None | | CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable | Aquatic Artificial flowing waters Artificial standing waters Freshwater marsh Marsh & swamp Riparian forest Riparian scrub Riparian woodland Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland |
| Reithrodontomys raviventris | salt-marsh harvest mouse | AMAFF02040 | 137 | G1G2 | S1S2 | Endangered | Endangered | | CDFW_FP-Fully Protected IUCN_EN-Endangered | Marsh & swamp Wetland |
| Sorex vagrans halicoetes | salt-marsh wandering shrew | AMABA01071 | 12 | G5T1 | S1 | None | None | | CDFW_SSC-Species of Special Concern | Marsh & swamp Wetland |

CNDDDB List of Special Status Species

Accessed: 6/7/2013

| ScientificName | CommonName | ElementCode | OccurrenceTotal | GlobalRank | StateRank | FederalStatus | StateStatus | RarePlantRank | OtherStatus | Habitat |
|-----------------------------------|---|-------------|-----------------|------------|-----------|---------------|-------------|---------------|---|---|
| <i>Sternula antillarum browni</i> | California least tern | ABNNM08103 | 67 | G4T2T3Q | S2S3 | Endangered | Endangered | | ABC_WLBCC-Watch List of Birds of Conservation Concern CDFW_FP-Fully Protected | Alkali playa Wetland |
| <i>Stuckenia filiformis</i> | slender-leaved pondweed | PMPOT03090 | 21 | G5 | S3 | None | None | 2.2 | | Marsh & swamp Wetland |
| <i>Suaeda californica</i> | California seablite | PDCHE0P020 | 17 | G1 | S1 | Endangered | None | 1B.1 | | Freshwater marsh Marsh & swamp Wetland |
| | | | | | | | | | | Alkali playa Alkali wetland Alpine Alpine dwarf scrub Bog & fen Brackish marsh Broadleaved upland forest Chaparral Chenopod scrub Cismontane woodland Closed-cone coniferous forest Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub Desert dunes Desert wash Freshwater marsh Great Basin grassland Great Basin scrub Interior dunes Ione formation Joshua tree woodland Limestone Lower montane coniferous forest Marsh & swamp Meadow & seep Mojavean desert scrub Montane dwarf scrub North coast coniferous forest Oldgrowth Pavement plain Redwood Riparian forest Riparian scrub Riparian woodland Salt marsh Sonoran desert scrub Sonoran thorn woodland Ultramafic Upper montane coniferous forest Upper Sonoran scrub Valley & Wetland |
| <i>Taxidea taxus</i> | American badger | AMAJF04010 | 454 | G5 | S4 | None | None | | CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern | Marsh & swamp Valley & foothill grassland Vernal pool Wetland |
| <i>Trifolium hydrophilum</i> | saline clover | PDFAB400R5 | 44 | G2 | S2 | None | None | 1B.2 | | Marsh & swamp Valley & foothill grassland Vernal pool Wetland |
| <i>Tryonia imitator</i> | mimic tryonia (=California brackishwater snail) | IMGASJ7040 | 39 | G2G3 | S2S3 | None | None | | IUCN_DD-Data Deficient | Aquatic Brackish marsh Estuary Lagoon Marsh & swamp Salt marsh Wetland |

**CNPS List of
Special Status Plants**
Santa Clara County, CA
Accessed: 6/7/2013

| Scientific Name | Common Name | Family | Lifeform | Rare Plant Rank | State Rank | Global Rank |
|---|---------------------------------|----------------|--------------------------------|-----------------|------------|-------------|
| <i>Acanthomintha lanceolata</i> | Santa Clara thorn-mint | Lamiaceae | annual herb | 4.2 | S3.2 | G3 |
| <i>Allium peninsulare</i> var. <i>franciscanum</i> | Franciscan onion | Alliaceae | perennial bulbiferous herb | 1B.2 | S2.2 | G5T2 |
| <i>Allium sharsmithiae</i> | Sharsmith's onion | Alliaceae | perennial bulbiferous herb | 1B.3 | S2.3 | G2 |
| <i>Amsinckia lunaris</i> | bent-flowered fiddleneck | Boraginaceae | annual herb | 1B.2 | S2? | G2? |
| <i>Androsace elongata</i> ssp. <i>acuta</i> | California androsace | Primulaceae | annual herb | 4.2 | S3.2? | G5?T3T4 |
| <i>Arctostaphylos andersonii</i> | Anderson's manzanita | Ericaceae | perennial evergreen shrub | 1B.2 | S2? | G2 |
| <i>Arctostaphylos regismontana</i> | Kings Mountain manzanita | Ericaceae | perennial evergreen shrub | 1B.2 | S2.2 | G2 |
| <i>Astragalus tener</i> var. <i>tener</i> | alkali milk-vetch | Fabaceae | annual herb | 1B.2 | S2 | G2T2 |
| <i>Atriplex joaquinana</i> | San Joaquin spearscale | Chenopodiaceae | annual herb | 1B.2 | S2 | G2 |
| <i>Azolla microphylla</i> | Mexican mosquito fern | Azollaceae | annual / perennial herb | 4.2 | S3.2? | G5 |
| <i>Balsamorhiza macrolepis</i> | big-scale balsamroot | Asteraceae | perennial herb | 1B.2 | S2 | G2 |
| <i>Boechera rubicundula</i> | Mount Day rockcross | Brassicaceae | perennial herb | 1B.1 | S1 | G1 |
| <i>Calandrinia breweri</i> | Brewer's calandrinia | Montiaceae | annual herb | 4.2 | S3.2? | G4 |
| <i>California macrophylla</i> | round-leaved filaree | Geraniaceae | annual herb | 1B.1 | S2 | G2 |
| <i>Calochortus umbellatus</i> | Oakland star-tulip | Liliaceae | perennial bulbiferous herb | 4.2 | S3.2 | G3 |
| <i>Calyptridium parryi</i> var. <i>hesseae</i> | Santa Cruz Mountains pussypaws | Montiaceae | annual herb | 1B.1 | S2 | G3G4T2 |
| <i>Calystegia collina</i> ssp. <i>venusta</i> | South Coast Range morning-glory | Convolvulaceae | perennial rhizomatous herb | 4.3 | S3.2 | G4T3 |
| <i>Campanula exigua</i> | chaparral harebell | Campanulaceae | annual herb | 1B.2 | S2.2 | G2 |
| <i>Campanula sharsmithiae</i> | Sharsmith's harebell | Campanulaceae | annual herb | 1B.2 | S1 | G1 |
| <i>Castilleja affinis</i> var. <i>neglecta</i> | Tiburon paintbrush | Orobanchaceae | perennial herb (hemiparasitic) | 1B.2 | S1 | G4G5T1 |
| <i>Castilleja rubicundula</i> var. <i>rubicundula</i> | pink creamsacs | Orobanchaceae | annual herb (hemiparasitic) | 1B.2 | S2 | G5T2 |
| <i>Ceanothus ferrisiae</i> | Coyote ceanothus | Rhamnaceae | perennial evergreen shrub | 1B.1 | S2 | G2 |
| <i>Centromadia parryi</i> ssp. <i>congdonii</i> | Congdon's tarplant | Asteraceae | annual herb | 1B.1 | S2 | G4T2 |
| <i>Chloropyron maritimum</i> ssp. <i>palustre</i> | Point Reyes bird's-beak | Orobanchaceae | annual herb (hemiparasitic) | 1B.2 | S2.2 | G4?T2 |
| <i>Chorizanthe robusta</i> var. <i>robusta</i> | robust spineflower | Polygonaceae | annual herb | 1B.1 | S1 | G2T1 |
| <i>Cirsium fontinale</i> var. <i>campylon</i> | Mt. Hamilton fountain thistle | Asteraceae | perennial herb | 1B.2 | S2 | G2T2 |
| <i>Cirsium praeteriens</i> | lost thistle | Asteraceae | perennial herb | 1A | SX | GX |
| <i>Clarkia breweri</i> | Brewer's clarkia | Onagraceae | annual herb | 4.2 | S3.2 | G3 |
| <i>Clarkia concinna</i> ssp. <i>automixa</i> | Santa Clara red ribbons | Onagraceae | annual herb | 4.3 | S3.3 | G5?T3 |
| <i>Collinsia multicolor</i> | San Francisco collinsia | Plantaginaceae | annual herb | 1B.2 | S2.2 | G2 |
| <i>Cypripedium fasciculatum</i> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | 4.2 | S3.2 | G4 |
| <i>Delphinium californicum</i> ssp. <i>interius</i> | Hospital Canyon larkspur | Ranunculaceae | perennial herb | 1B.2 | S2? | G3T2? |
| <i>Dirca occidentalis</i> | western leatherwood | Thymelaeaceae | perennial deciduous shrub | 1B.2 | S2S3 | G2G3 |
| <i>Dudleya abramsii</i> ssp. <i>setchellii</i> | Santa Clara Valley dudleya | Crassulaceae | perennial herb | 1B.1 | S2 | G3T2 |
| <i>Eriastrum tracyi</i> | Tracy's eriastrum | Polemoniaceae | annual herb | 3.2 | S3 | G3Q |
| <i>Eriogonum argillosum</i> | clay buckwheat | Polygonaceae | annual herb | 4.3 | S3.3 | G3 |
| <i>Eriogonum nudum</i> var. <i>decurrens</i> | Ben Lomond buckwheat | Polygonaceae | perennial herb | 1B.1 | S2.1 | G5T2 |
| <i>Eriogonum umbellatum</i> var. <i>bahiiforme</i> | bay buckwheat | Polygonaceae | perennial herb | 4.2 | S3.2 | G5T3 |

**CNPS List of
Special Status Plants**
Santa Clara County, CA
Accessed: 6/7/2013

| Scientific Name | Common Name | Family | Lifeform | Rare Plant Rank | State Rank | Global Rank |
|--|----------------------------------|----------------|----------------------------|-----------------|------------|-------------|
| <i>Eriophyllum jepsonii</i> | Jepson's woolly sunflower | Asteraceae | perennial herb | 4.3 | S3 | G3 |
| <i>Eryngium aristulatum</i> var. <i>hooveri</i> | Hoover's button-celery | Apiaceae | annual / perennial herb | 1B.1 | S2.1 | G5T2 |
| <i>Erysimum franciscanum</i> | San Francisco wallflower | Brassicaceae | perennial herb | 4.2 | S3.2 | G3 |
| <i>Fritillaria agrestis</i> | stinkbells | Liliaceae | perennial bulbiferous herb | 4.2 | S3.2 | G3 |
| <i>Fritillaria falcata</i> | talus fritillary | Liliaceae | perennial bulbiferous herb | 1B.2 | S2.2 | G2 |
| <i>Fritillaria liliacea</i> | fragrant fritillary | Liliaceae | perennial bulbiferous herb | 1B.2 | S2 | G2 |
| <i>Galium andrewsii</i> ssp. <i>gatense</i> | phlox-leaf serpentine bedstraw | Rubiaceae | perennial herb | 4.2 | S3.2 | G5T3 |
| <i>Helianthus exilis</i> | serpentine sunflower | Asteraceae | annual herb | 4.2 | S3.2 | G3Q |
| <i>Hoita strobilina</i> | Loma Prieta hoita | Fabaceae | perennial herb | 1B.1 | S2 | G2 |
| <i>Iris longipetala</i> | coast iris | Iridaceae | perennial rhizomatous herb | 4.2 | S3.2 | G3 |
| <i>Isocoma menziesii</i> var. <i>diabolica</i> | Satan's goldenbush | Asteraceae | perennial shrub | 4.2 | S3.2 | G3G5T3 |
| <i>Lasthenia conjugens</i> | Contra Costa goldfields | Asteraceae | annual herb | 1B.1 | S1 | G1 |
| <i>Legenere limosa</i> | legenere | Campanulaceae | annual herb | 1B.1 | S2.2 | G2 |
| <i>Leptosiphon acicularis</i> | bristly leptosiphon | Polemoniaceae | annual herb | 4.2 | S3.2 | G3 |
| <i>Leptosiphon ambiguus</i> | serpentine leptosiphon | Polemoniaceae | annual herb | 4.2 | S3.2 | G3 |
| <i>Leptosiphon grandiflorus</i> | large-flowered leptosiphon | Polemoniaceae | annual herb | 4.2 | S3.2 | G3 |
| <i>Leptosyne hamiltonii</i> | Mt. Hamilton coreopsis | Asteraceae | annual herb | 1B.2 | S2.2 | G2 |
| <i>Lessingia hololeuca</i> | woolly-headed lessingia | Asteraceae | annual herb | 3 | S3 | G3 |
| <i>Lessingia micradenia</i> var. <i>glabrata</i> | smooth lessingia | Asteraceae | annual herb | 1B.2 | S2 | G2T2 |
| <i>Lessingia tenuis</i> | spring lessingia | Asteraceae | annual herb | 4.3 | S3.3 | G3 |
| <i>Lomatium observatorium</i> | Mt. Hamilton lomatium | Apiaceae | perennial herb | 1B.2 | S1? | G1 |
| <i>Madia radiata</i> | showy golden madia | Asteraceae | annual herb | 1B.1 | S2 | G2 |
| <i>Malacothamnus aboriginum</i> | Indian Valley bush-mallow | Malvaceae | perennial deciduous shrub | 1B.2 | S2 | G2 |
| <i>Malacothamnus arcuatus</i> | arcuate bush-mallow | Malvaceae | perennial evergreen shrub | 1B.2 | S2.2 | G2Q |
| <i>Malacothamnus davidsonii</i> | Davidson's bush-mallow | Malvaceae | perennial deciduous shrub | 1B.2 | S2 | G2 |
| <i>Malacothamnus hallii</i> | Hall's bush-mallow | Malvaceae | perennial evergreen shrub | 1B.2 | S2 | G2Q |
| <i>Malacothrix phaeocarpa</i> | dusky-fruited malacothrix | Asteraceae | annual herb | 4.3 | S3.3 | G3 |
| <i>Meconella oregana</i> | Oregon meconella | Papaveraceae | annual herb | 1B.1 | S1 | G2G3 |
| <i>Micropus amphibolus</i> | Mt. Diablo cottonweed | Asteraceae | annual herb | 3.2 | S3.2? | G3 |
| <i>Microseris sylvatica</i> | sylvan microseris | Asteraceae | perennial herb | 4.2 | S3.2 | G3 |
| <i>Monardella antonina</i> ssp. <i>antonina</i> | San Antonio Hills monardella | Lamiaceae | perennial rhizomatous herb | 3 | S3? | G4T3Q |
| <i>Monolopia gracilens</i> | woodland woollythreads | Asteraceae | annual herb | 1B.2 | S2S3 | G2G3 |
| <i>Navarretia cotulifolia</i> | cotula navarretia | Polemoniaceae | annual herb | 4.2 | S3.2 | G3 |
| <i>Navarretia prostrata</i> | prostrate vernal pool navarretia | Polemoniaceae | annual herb | 1B.1 | S2 | G2 |
| <i>Penstemon rattanii</i> var. <i>kleei</i> | Santa Cruz Mountains beardtongue | Plantaginaceae | perennial herb | 1B.2 | S2.2 | G4T2 |
| <i>Pentachaeta exilis</i> ssp. <i>aeolica</i> | San Benito pentachaeta | Asteraceae | annual herb | 1B.2 | S1 | G5T1 |
| <i>Perideridia gairdneri</i> ssp. <i>gairdneri</i> | Gairdner's yampah | Apiaceae | perennial herb | 4.2 | S3.2 | G5T3 |
| <i>Phacelia phacelioides</i> | Mt. Diablo phacelia | Boraginaceae | annual herb | 1B.2 | S1 | G1 |

**CNPS List of
Special Status Plants**
Santa Clara County, CA
Accessed: 6/7/2013

| Scientific Name | Common Name | Family | Lifeform | Rare Plant Rank | State Rank | Global Rank |
|---|-----------------------------|------------------|----------------------------|-----------------|------------|-------------|
| <i>Piperia candida</i> | white-flowered rein orchid | Orchidaceae | perennial herb | 1B.2 | S2 | G3? |
| <i>Piperia leptopetala</i> | narrow-petaled rein orchid | Orchidaceae | perennial herb | 4.3 | S3.3 | G3 |
| <i>Piperia michaelii</i> | Michael's rein orchid | Orchidaceae | perennial herb | 4.2 | S3.2 | G3 |
| <i>Plagiobothrys chorisianus</i> var. <i>hickmanii</i> | Hickman's popcorn-flower | Boraginaceae | annual herb | 4.2 | S3.2 | G3T3Q |
| <i>Plagiobothrys glaber</i> | hairless popcorn-flower | Boraginaceae | annual herb | 1A | SH | GH |
| <i>Plagiobothrys uncinatus</i> | hooked popcorn-flower | Boraginaceae | annual herb | 1B.2 | S2 | G2 |
| <i>Plagiobothrys verrucosus</i> | warty popcorn-flower | Boraginaceae | annual herb | 2.1 | S1 | G4? |
| <i>Psilocarphus brevissimus</i> var. <i>multiflorus</i> | Delta woolly-marbles | Asteraceae | annual herb | 4.2 | S3 | G4T3 |
| <i>Sanicula saxatilis</i> | rock sanicle | Apiaceae | perennial herb | 1B.2 | S2 | G2 |
| <i>Senecio aphanactis</i> | chaparral ragwort | Asteraceae | annual herb | 2.2 | S2 | G3? |
| <i>Sidalcea malachroides</i> | maple-leaved checkerbloom | Malvaceae | perennial herb | 4.2 | S3S4.2 | G3G4 |
| <i>Streptanthus albidus</i> ssp. <i>albidus</i> | Metcalf Canyon jewel-flower | Brassicaceae | annual herb | 1B.1 | S1 | G2T1 |
| <i>Streptanthus albidus</i> ssp. <i>peramoenus</i> | most beautiful jewel-flower | Brassicaceae | annual herb | 1B.2 | S2.2 | G2T2 |
| <i>Streptanthus callistus</i> | Mt. Hamilton jewel-flower | Brassicaceae | annual herb | 1B.3 | S1 | G1 |
| <i>Stuckenia filiformis</i> | slender-leaved pondweed | Potamogetonaceae | perennial rhizomatous herb | 2.2 | S3 | G5 |
| <i>Suaeda californica</i> | California seablite | Chenopodiaceae | perennial evergreen shrub | 1B.1 | S1 | G1 |
| <i>Trifolium amoenum</i> | two-fork clover | Fabaceae | annual herb | 1B.1 | S1 | G1 |
| <i>Trifolium hydrophilum</i> | saline clover | Fabaceae | annual herb | 1B.2 | S2 | G2 |
| <i>Tropidocarpum capparideum</i> | caper-fruited tropidocarpum | Brassicaceae | annual herb | 1B.1 | S1 | G1 |

US Fish and Wildlife Service Species List for Santa Clara County. Accessed: 12 October 2012.

| Group | Name | Population | Status | Lead Office | Recovery Plan Name | Recovery Plan Stage |
|------------------|-----------------------------------|-----------------------------|------------|---------------------------------|----------------------------------|---------------------|
| Amphibians | California tiger Salamander | U.S.A. (CA - Sonoma County) | Endangered | Sacramento Fish And Wildlife | | |
| Amphibians | California red-legged frog (Rana) | Entire | Threatened | Sacramento Fish And Wildlife | Recovery Plan for the California | Final |
| Birds | Western snowy plover | Pacific coastal pop. | Threatened | Arcata Fish And Wildlife Office | Final Recovery Plan for the | Final |
| Crustaceans | Conservancy fairy shrimp | Entire | Endangered | Sacramento Fish And Wildlife | Recovery Plan for Vernal Pool | Final |
| Crustaceans | Vernal pool tadpole shrimp | Entire | Endangered | Sacramento Fish And Wildlife | Recovery Plan for Vernal Pool | Final |
| Flowering Plants | Calistoga allocarya | | Endangered | Sacramento Fish And Wildlife | | |
| Flowering Plants | Coyote ceanothus (Ceanothus | | Endangered | Sacramento Fish And Wildlife | Recovery Plan for Serpentine | Final |
| Flowering Plants | Metcalf Canyon jewelflower | | Endangered | Sacramento Fish And Wildlife | Recovery Plan for Serpentine | Final |
| Flowering Plants | Tiburon paintbrush (Castilleja | | Endangered | Sacramento Fish And Wildlife | Recovery Plan for Serpentine | Final |
| Flowering Plants | San Mateo woolly sunflower | | Endangered | Sacramento Fish And Wildlife | Recovery Plan for Serpentine | Final |
| Flowering Plants | Santa Clara Valley dudleya | | Endangered | Sacramento Fish And Wildlife | Recovery Plan for Serpentine | Final |
| Mammals | San Joaquin kit fox (Vulpes | U.S.A.(CA) | Endangered | Sacramento Fish And Wildlife | Recovery Plan for Upland | Final |
| Mammals | Salt marsh harvest mouse | U.S.A.(CA) | Endangered | Sacramento Fish And Wildlife | Salt Marsh Harvest Mouse and | Final |
| Mammals | Salt marsh harvest mouse | U.S.A.(CA) | Endangered | Sacramento Fish And Wildlife | Draft Recovery Plan for the | Draft |
| Reptiles | Alameda whipsnake (=striped | Entire | Threatened | Sacramento Fish And Wildlife | Draft Recovery Plan for | Draft |
| Reptiles | Giant garter snake (Thamnophis | Entire | Threatened | Sacramento Fish And Wildlife | Draft Recovery Plan for the | Draft |

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APPENDIX B

List of Observed Plant and Wildlife Species

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Appendix B - Plant Species Observed in the Study Area

| Scientific Name (Jepson Manual 2nd Edition) | Common Name | Arid West Indicator Status |
|---|----------------------------|----------------------------|
| <i>Avena fatua</i> | Wild Oats | NL |
| <i>Brassica nigra</i> | Black mustard | NL |
| <i>Brassica rapa</i> | Rape | FACU |
| <i>Bromus diandrus</i> | Ripgut Grass | NL |
| <i>Bromus madritensis ssp. rubens</i> | Red Brome | UPL |
| <i>Conium maculatum</i> | Poison-Hemlock | FACW |
| <i>Distichlis spicata</i> | Coastal Salt Grass | FAC |
| <i>Festuca perennis</i> | Perennial Rye Grass | FAC |
| <i>Frankenia salina</i> | Alkali Sea-Heath | FACW |
| <i>Fraxinus latifolia</i> | Oregon Ash | FACW |
| <i>Hordeum marinum</i> | Seaside Barley | FAC |
| <i>Hordeum murinum ssp. murinum</i> | Wall Barley | FACU |
| <i>Juncus mexicanus</i> | Mexican Rush | FACW |
| <i>Lactuca serriola</i> | Prickly Lettuce | FACU |
| <i>Lepidium draba</i> | Whitetop | NL |
| <i>Lepidium latifolium</i> | Broad-Leaf Pepperwort | FAC |
| <i>Lotus corniculatus</i> | Garden Bird's-Foot-Trefoil | FAC |
| <i>Melilotus indicus</i> | Sourclover | FACU |
| <i>Oenanthe sarmentosa</i> | Pacific Water-Dropwort | OBL |
| <i>Rumex crispus</i> | Curly Dock | FAC |
| <i>Salicornia pacifica</i> | Pacific swampfire | OBL |
| <i>Salix exigua</i> | Narrow-Leaf Willow | FACW |
| <i>Schoenoplectus californicus</i> | California Club-Rush | OBL |
| <i>Typha latifolia</i> | Broad-Leaf Cat-Tail | OBL |

Wildlife Species Observed in the Study Area

| Scientific Name | Common Name | Notes |
|---------------------------------|----------------------------|---------------------------------|
| <i>Cathartes aura</i> | Turkey vulture | Flyover |
| <i>Otospermophilus beecheyi</i> | California ground squirrel | Common species |
| <i>Egretta thula</i> | Snowy egret | In slough channel near outfalls |
| <i>Buteo jamaicensis</i> | Red-tailed hawk | Flyover |
| <i>Sceloporus occidentalis</i> | Western fence lizard | Common species |

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APPENDIX C

Site Photographs

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Top: Photo showing existing outfall to Calabazas Creek at edge of coastal brackish marsh in the eastern Study Area.

Bottom: Narrow, coastal brackish marsh habitat along Calabazas Creek, east of the Study Area.

Photographs taken May 22, 2013





Top: Existing junction structure near the southwest corner of the flood control basin.

Bottom: Upland grassland in the southwestern Study Area.

Photographs taken May 22, 2013





Top: Seasonal wetland ditch in the southern Study Area, facing south.

Bottom: Existing 36-inch storm drain line along the northern levee of the flood control basin. The portion of the pipe between the new inlet structure and the pump station would be cleaned for removal of sediment/debris.

Photographs taken May 22, 2013





Top: Representative seasonal wetland depression located north of the flood control basin.

Bottom: Representative upland berm: steep slopes dominated by non-native grasses.

Photographs taken May 22, 2013



APPENDIX B

**NOTICE OF AVAILABILITY OF AN INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION**



NOTICE OF AVAILABILITY

Draft Initial Study/Mitigated Negative Declaration for Baylands Pump Station No. 2 Rehabilitation Project

Public works Project #UY-12-02-13

**30 Day Public Review Period:
December 6, 2013 through January 6, 2014**

Project Location

The proposed Project is located in the northern low lying lands of the City of Sunnyvale, east of Baylands Park and west of Calabazas Creek.

Project Description

The project consists of a series of improvements to the Baylands Pump Station No. 2, including replacement of the pumps, upgrades to the existing pump station structure, the drainage basin, and the creek outfalls. The planned rehabilitated station will have a pumping capacity of 120 cubic feet per second (cfs) versus the existing station design pumping capacity of 220 cfs. The City has determined that this excess capacity is not needed to meet the stormwater runoff requirements of northern Sunnyvale.

Environmental Factors Potentially Affected:

- Biological Resources
- Cultural Resources
- Hazards & Hazardous Materials
- Hydrology and Water Quality

Comments should be provided in writing no later than 5:00 P.M, on January 6, 2014 to:

City of Sunnyvale
Department of Public Works
Attn: Nathan Scribner, Senior Engineer
456 West Olive Avenue
Sunnyvale, CA 94088-3707
Or
nscibner@sunnyvale.ca.gov

Available Copies

Copies of this document are available for review at the City of Sunnyvale Library, the City of Sunnyvale One Stop Permit Center and the City of Sunnyvale Community Center.