

J. BIOLOGICAL RESOURCES

This section describes the existing biological resources and habitats within the City of Albany. The impacts and mitigation measure section defines the criteria of significance and identifies potential biological resource impacts related to implementation of the Draft General Plan.

1. Setting

The setting section describes the biological resources methodology, existing resources within the City, and the regulatory context.

a. Methods. Prior to conducting fieldwork, LSA reviewed the 1992 General Plan, particularly the Vegetation and Wildlife, Albany Creeks, Albany Waterfront, Albany Hill, and Conservation Goals and Policies sections.¹ Information from this report was used to gain familiarity with the vegetation types and habitats present within the City and to identify areas of interest for future site visits. Additional sources of information on vegetation, habitat types, and special-status species included the *Albany Beach Restoration and Public Access Feasibility Study*,² the *University Village at San Pablo Avenue Project Environmental Impact Report*,³ and the Animal Life and Habitat Issues sections in the *Eastshore Park Project Resource Inventory*.^{4,5} Concurrent with this review, LSA developed an aerial photograph map of the planning area using imagery from U.S. Geological Survey (USGS) and geographic information system (GIS) layers depicting the planning area. Given the large geographic scope of the City, its urban setting, and the planning context of the General Plan process, LSA determined that a broad level of habitat analysis was appropriate for this report. As such, the habitat types identified in this section have been customized for the planning area and rely on general habitat characteristics and land use patterns rather than plant species composition.

LSA collected information on special-status species known to occur or potentially occurring in the City by searching the California Natural Diversity Database⁶ (CNDDDB) and California Native Plant Species (CNPS) Inventory of Rare and Endangered Plants⁷ for records within the Richmond and nine surrounding USGS 7.5-minute quadrangles. Additional sources of information included the Biological Assessment Report for the Lower Codornices Creek Improvement Plan,⁸ the Alameda

¹ Albany, City of, 1992. *City of Albany General Plan and Final EIR*. Adopted December 7.

² LSA Associates, Inc., 2011. *Albany Beach Restoration and Public Access Feasibility Study*. January.

³ LSA Associates, Inc., 2009. *University Village at San Pablo Avenue Project Environmental Impact Report*. July.

⁴ LSA Associates, Inc., 2002a. *Habitat Issues - Animal Life Section in Eastshore Park Project Resource Inventory*. Prepared for California Department of Parks and Recreation, East Bay Regional Park District and California State Coastal Conservancy, January 2002.

⁵ LSA Associates, Inc., 2002c. *Habitat Issues - Plant Life Section in Eastshore Park Project Resource Inventory*. Prepared for California Department of Parks and Recreation, East Bay Regional Park District and California State Coastal Conservancy, February 2002.

⁶ California Department of Fish and Wildlife, 2015a. *California Natural Diversity Database (CNDDDB)*, commercial version dated May 31, 2015. Biogeographic Data Branch, California Department of Fish and Wildlife, Sacramento.

⁷ California Native Plant Society, 2014. *Inventory of rare and endangered plants in California* (online edition, v8-02). California Native Plant Society, Sacramento. Website: www.cnps.org/inventory. March 19.

⁸ Environmental Collaborative, 2001. *Biological Assessment Report for the Lower Codornices Creek Improvement Plan Project*. Prepared for Design Community and Environment, Berkeley, California.

County Breeding Bird Atlas,⁹ and LSA biologists' personal knowledge of species occurrences in the planning area vicinity.

For the purposes of this report, special-status species are defined as follows:

- Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the Federal Endangered Species Act (FESA);
- Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the California Endangered Species Act (CESA);
- Plant species given the California Rare Plant Ranking (CRPR) of 1A, 1B, and 2;¹⁰
- Animal species designated as Species of Special Concern or Fully Protected by the California Department of Fish and Wildlife (CDFW);¹¹
- Species that meet the definition of rare, threatened, or endangered under Section 15380 of the California Environmental Quality Act (CEQA) Guidelines; and
- Taxa considered species of special concern by the relevant local agencies.

LSA wildlife biologist Dan Sidle and botanist/arborist Tim Milliken conducted a reconnaissance-level survey of the planning area on February 24, 2014. The purpose of this visit was to map habitat conditions and assess the potential for such habitats to support special-status plant and animal species. Although covering the entire City on foot was not feasible, representative sites supporting each habitat type were identified prior to fieldwork and visited during the site visits (e.g., University Village for grassland; Albany waterfront for tidal marsh; Cerritos, Middle, Village, and Codornices Creeks for creeks and riparian woodland; and Albany Hill for oak and eucalyptus woodland).

Basic information on dominant plant species and animal species were collected at each site. Due to the broad level of habitat mapping for this study, most habitat type boundaries were easily identified on the aerial photograph map prior to fieldwork. No focused rare plant or special-status animal surveys were conducted for this study, nor was a formal jurisdictional delineation of waters of the United States (i.e., wetlands) conducted. Vegetation and cover types were manually digitized in ArcView 10.1, based on aerial photography taken in April 2011 by the USGS.

Plant taxonomy and nomenclature in this chapter follows Baldwin et al.¹² Common and scientific names for special-status species or subspecies conform to the CNDDDB.¹³ Common and scientific

⁹ Richmond, B., H. Green, and D.C. Rice, 2011. *Alameda County Breeding Bird Atlas*. Golden Gate Audubon Society. Berkeley, California.

¹⁰ Rare plant rankings assigned by a collaborative group of over 300 botanists in government, academia, non-governmental organizations, and the private sector. This group is sanctioned and jointly managed by the California Department of Fish and Wildlife and the CNPS.

¹¹ California Department of Fish and Wildlife, 2015b. *Special Animals List*. Natural Diversity Database. Periodic Publication. 51 pp. March 2015.

¹² Baldwin, B. G., et al., editors, 2012. *The Jepson Manual: Vascular Plants of California*. Second Edition. University of California Press, Berkeley.

names for fish, reptiles, amphibians, birds, and mammals conform to Nelson and others,¹⁴ Crother,¹⁵ the American Ornithologists' Union (AOU) *Check-list of North American Birds*,¹⁶ and Baker and others,¹⁷ respectively.

b. Biological Resources within Albany. The following section provides a description of the geography of the City, habitat types, wildlife habitat values, special-status species, and sensitive habitats.

The City comprises approximately 3,121 acres (including water) in the northwestern corner of Alameda County, which is bounded to the west by San Francisco Bay, to the north by the Cities of Richmond and El Cerrito, to the south of the City of Berkeley, and to the east by the City of Berkeley, Contra Costa County, and the Berkeley Hills. The primary watersheds within the City are associated with Cerrito, Codornices, Middle, and Village Creeks, which mostly drain from springs in the East Bay Hills. Much of Cerrito Creek and Middle Creek have been diverted into culverts beneath the City of Albany, except for portions near the north and northeast sides of Albany Hill. The eastern reaches of Codornices Creek consist of a cement-lined flood control channel until it flows west of San Pablo Avenue and becomes a more natural creek channel within University Village. Village Creek is a shorter creek that occurs within University Village and merges with Codornices Creek immediately west of Interstate 80 (I-80) (along the eastern edge of Golden Gate Fields) and then flows north to the Albany Mudflats Ecological Reserves and San Francisco Bay.

(1) Vegetation/Cover Types. LSA identified 14 vegetation/cover types within the City: urban, grassland, coast live oak woodland, eucalyptus woodland, mixed riparian woodland, salt marsh, freshwater/brackish marsh/seasonal wetland, beach/sand dune, tidal mudflat, ruderal, agriculture, open water (Bay and pond), and creek. Figure IV.J-1 identifies the locations of these habitat types. Table IV.J-1 summarizes the approximate acreage of each habitat type. Although discussed in this report, the freshwater/brackish marsh/seasonal wetland vegetation/cover type is not depicted in Figure IV.J-1 or on Table IV.J-1 because these areas are too small to map within the City. The acreages listed in Table IV.J-1 were calculated from polygons that were manually digitized using GIS software (i.e., ArcView 10.1) and based on habitat boundaries that were hand-drawn on aerial imagery by LSA staff. The acreage of the day-lighted creeks was approximated by using the linear feet of day-lighted creek segments provided by the City of Albany and an estimated average creek width of 5 feet. The majority of the undeveloped areas within the City limits are located in or adjacent to the Albany waterfront, Albany Hill, University Village, and four creeks (Codornices, Middle,

¹³ California Department of Fish and Wildlife, 2015a. California Natural Diversity Database (CNDDDB), commercial version dated May 31, 2015. Biogeographic Data Branch, Sacramento.

¹⁴ Nelson, J. S., et al., editors, 2004. *A List of Common and Scientific Names of Fishes from the United States, Canada, and Mexico*. Sixth edition. American Fisheries Society Special Publication 20.

¹⁵ Crother, B. I., editor, 2012. *Scientific and Standard English Names of Amphibians and Reptiles of North American north of Mexico*. Society for the Study of Amphibians and Reptiles (SSAR) Herpetological Circular 39.

¹⁶ American Ornithologists' Union, 1998. *Check-list of North American Birds*. Seventh edition. American Ornithologists' Union, Washington, D.C.

¹⁷ Baker, R. J., et al., 2003. *Revised Checklist of North American Mammals North of Mexico*.

Village, and Cerrito). These areas also support the majority of grassland, woodland, salt marsh, tidal mudflat, and open water vegetation/cover types, as shown in Figure IV.J-1.

The following sections describe the vegetation/cover types in more detail. These descriptions are based on LSA’s reconnaissance surveys, unless otherwise noted.

(2) Urban. Urban land includes residential neighborhoods; commercial and industrial buildings; vacant lots; paved roads, sidewalks, and parking lots; institutional buildings such as schools, senior centers, police and fire departments, and civic centers; the horse racing track; and urban parks. A key component of urban habitat is the vegetation. Urban vegetation is typically composed of a highly diversified selection of non-native plant varieties chosen for specific qualities inherent in individual trees, shrubs, and perennial and annual herbaceous plants (too numerous to list). Pre-existing native vegetation does persist within the City (i.e., creek corridors, Albany Hill, Albany waterfront), and many private and public urban projects feature native vegetation.

Table IV.J-1: Acreages of Vegetation/Cover Types within the City of Albany Planning Area

Habitat Type	Acreage Within City
Urban	980
Grassland	35
Coast Live Oak Woodland	8
Eucalyptus Woodland	35
Mixed Riparian Woodland	8
Salt Marsh	13
Beach/Sand Dune	3
Tidal Mudflat	143
Ruderal	53
Agriculture	8
Open Water (Bay)	1,827
Open Water (Pond)	6
Creek (Day-lighted)	2
TOTAL	3,121

Note: Total of vegetation types in this table is different than total open space for land uses in Table IV.A-1, Existing Land Use within the City of Albany in the land use chapter, because this chapter includes water. Some portions of the tidal mudflats are counted as water, and other portions are counted as land, based on aerial photographs.

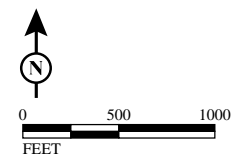
Source: LSA Associates, Inc., 2014.

The urban forest is the collection of trees occurring on public and private property. The City’s urban forestry program promotes the beneficial effect of trees on the local environment, and assists homeowners with requests to plant street trees. The Albany Tree Task Force developed a tree list¹⁸ of climate-appropriate trees for planting within Albany. Prominent street trees include: trident maple (*Acer buergerianum*), strawberry tree (*Arbutus ‘Marina’*), crimson bottlebrush (*Callistemon citrinus*), camphor (*Cinnamomum camphora*), red flowering gum (*Corymbia ficifolia*), red ironbark eucalyptus (*Eucalyptus sideroxylon*), jacaranda (*Jacaranda mimosifolia*), sweet gum (*Liquidambar styraciflua*), southern magnolia (*Magnolia grandiflora*), flowering crabapple (*Malus floribunda*), paperbark mealaluca (*Melaleuca quinquenervia*), Canary Island pine (*Pinus canariensis*), London plane (*Platanus x. acerifolia*), coast redwood (*Sequoia sempervirens*), flowering cherry (*Prunus serrulata*), evergreen pear (*Pyrus kawakamii*), and Chinese elm (*Ulmus parvifolia*). Other trees within the area include: silk tree (*Albizia julibrissin*), European white birch (*Betula pendula*), Atlas cedar (*Cedrus atlantica*), deodar cedar (*Cedrus deodara*), carob (*Ceratonia siliqua*), Italian cypress (*Cupressus sempervirens*), hopseed bush (*Dodonaea viscosa*), blue gum (*Eucalyptus globulus*), Modesto ash (*Fraxinus velutina*), tulip tree (*Liriodendron tulipifera*), mayten (*Maytenus boaria*), California pepper tree (*Schinus molle*), Mexican fan palm (*Washingtonia robusta*), and coast live oak (*Quercus agrifolia*). Native coast live oak is a major component of the urban landscape and specimens can be found in public areas and private yards throughout the City.

¹⁸ Albany, City of, 2014. *Revised Street Tree List*. Website: www.albanyca.org/index.aspx?page=150.



LSA



LEGEND

- City Limit
- Creek
- Creek in Culvert

VEGETATION/COVER TYPES

- | | | | | | |
|-----|--|---------|-------------------------|-------|-------------------------|
| Ag | Agricultural Research/Community Garden | Mf | Tidal Mudflat | Rip | Mixed Riparian Woodland |
| B | Beach/Sand Dune | Oak | Coast Live Oak Woodland | Ru | Ruderal |
| Euc | Eucalyptus Woodland | OW-Bay | Open Water (Bay) | SM | Salt Marsh |
| Gr | Grassland | OW-Pond | Open Water (Pond) | Urban | Urban |

FIGURE IV.J-1

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(3) Grassland. Large expanses of grassland occur at the following locations: University Village; the Plateau area of the waterfront; Union Pacific railroad right-of way; and undeveloped land that ranges from Pierce Street in the east to the areas north and south of Buchanan Street near I-80 (Figure IV.J-1). Grasslands are also present on Albany Hill, although they occur in small patches that form a mosaic within the surrounding woodland. This vegetation type consists primarily of annual non-native grasses and herbaceous annuals and is generally associated with areas of human caused disturbance. Trees and shrubs may occur sporadically, but in general this vegetation type does not include woody vegetation. Although non-native plant species dominate the grasslands, less disturbed areas of Albany Hill are more likely to support native grasses and forbs. Typical non-native plant species in grasslands include wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Italian thistle (*Carduus pycnocephalus*), yellow star-thistle (*Centaurea solstitialis*), bull thistle (*Cirsium vulgare*), pampas grass (*Cortaderia* sp.), Bermuda grass (*Cynodon dactylon*), stinkwort (*Dittrichia graveolens*), sweet fennel (*Foeniculum vulgare*), stork's bill (*Erodium cicutarium*), summer mustard (*Hirschfeldia incana*), hare barley (*Hordeum leporinum*), Italian ryegrass (*Lolium multiflorum*), common mallow (*Malva neglecta*), bur-clover (*Medicago polymorpha*), prickly ox-tongue (*Helminthotheca echioides*), smilo grass (*Stipa miliacea* var. *miliacea*), cut-leaf plantain (*Plantago coronopus*), clover (*Trifolium* sp.), and brome fescue (*Vulpia* sp.). These species are common non-native grasses and forbs that typically occur in grasslands throughout the Bay Area and are expected to occur in grasslands within the City. Native species present in grasslands on Albany Hill include: yarrow (*Achillea millefolium*), soap root (*Chlorogalum pomeridianum*), ookow (*Dichelostemma congestum*), blue wildrye (*Elymus glaucus*), California poppy (*Eschscholzia californica*), bracken fern (*Pteridium aquilinum*), and California buttercup (*Ranunculus californicus*).

(4) Woodlands. Woodlands within the City consist of three broadly defined vegetation series:¹⁹ (1) coast live oak woodland, consisting of woodlands where coast live oaks are the sole, dominant, or important tree in the canopy; (2) eucalyptus, a closed-canopy system dominated by blue gum or other eucalyptus species; and (3) mixed riparian woodland, which is co-dominated by riparian species such as California buckeye (*Aesculus californica*), arroyo willow (*Salix lasiolepis*), western sycamore (*Platanus racemosa*), California bay (*Umbellularia californica*), and coast live oak. Woodlands primarily occur at Albany Hill, University Village, along Cerrito Creek, Codornices Creek, Middle Creek, and to a limited extent on the Albany Plateau and Bulb (Figure IV.J-1).

Coast Live Oak Woodland. Coast live oak woodland occurs along the northern and eastern slopes of Albany Hill, with patches along the upland stream banks and terraces of Cerrito and Codornices Creeks. Coast live oaks dominate the canopy layer in these areas, with associate species including a mix of native and non-native species such as glossy privet (*Ligustrum lucidum*), big leaf maple (*Acer macrophyllum*), red ironbark eucalyptus, arroyo willow, California bay, California buckeye, and coast redwood. The coast live oak woodland includes a mix of native and non-native herbs and shrubs including California rose (*Rosa californica*), coffeeberry (*Rhamnus californica*), blue elderberry (*Sambucus nigra* subsp. *caerulea*), toyon (*Heteromeles arbutifolia*), California blackberry (*Rubus ursinus*), Canary and English ivy (*Hedera canariensis*, *H. helix*), and annual grasses.

¹⁹ Sawyer, J. O., and T. Keeler-Wolf, 1995. *A Manual of California Vegetation*. California Native Plant Society, Sacramento.

Eucalyptus Woodland. Eucalyptus woodland ranges from monotypic blue gum stands with little or no understory to scattered trees with a well-developed understory. The best example of this habitat type occurs on Albany Hill. Eucalyptus woodland also occurs at Albany Beach, on the upland banks of Codornices Creek adjacent to Saint Mary's College High School and Golden Gate Fields, and along Village Creek west of San Pablo Avenue at University Village. Understory vegetation in this woodland is typically sparse, and what little vegetation is present consists predominantly of non-native species including: cheeseweed (*Malva parvilora*), annual blue grass (*Poa annua*), Chilean brome (*Bromus catharticus* var. *elatus*), pineapple weed (*Matricaria discoidea*), and seedlings of the next generation of eucalyptus. On Albany Hill, scattered thickets of native poison oak (*Toxicodendron diversilobum*), sticky monkey flower (*Mimulus aurantiacus*), and toyon are present in the understory.

Mixed Riparian Woodland. Mixed riparian woodland is dominated by native riparian tree species that are adapted to wetland stream banks, floodplains, and creek terraces that are seasonally flooded or permanently saturated by freshwater. In the City, mixed riparian woodland stands are comprised of a variety of tree species including: box elder (*Acer negundo*), redosier dogwood (*Cornus sericea*), California buckeye, western sycamore, coast live oak, arroyo willow, and California bay. In some areas, mixed riparian woodland is represented by pure stands of arroyo willow. Understory plant species observed along Cerrito Creek include native and non-native shrubs and herbs including: mugwort (*Artemisia douglasiana*), coyote brush (*Baccharis pilularis*), grasses in the genus *Bromus*, wild cucumber (*Marah fabacea*), Himalayan blackberry (*Rubus armeniacus*), Canary ivy, and California rose.

Mixed riparian woodland is present along several creeks within the City. This type of habitat is prominent along Cerrito Creek east of Pierce Street to about Talbot Avenue. Several large western sycamore trees are growing west of San Pablo Avenue adjacent to the Orientation Center for the Blind. East of Talbot Avenue, Cerrito Creek runs underground through culverts without daylight sections (as interpreted through aerial imagery).

Mixed riparian woodland vegetation is also present along Village Creek and in two sections of Middle Creek north of Ohlone Avenue and west of Jackson Street within University Village; and between the Union Pacific railroad and I-80 north of the Target store.

It is prominent along Codornices Creek west of I-80, east of I-80 to 6th Street, and 8th Street to San Pablo Avenue. A section of Codornices Creek between 6th Street and 8th Street has been planted with riparian woodland species and continues to develop toward a mature woodland. East of San Pablo Avenue public access to day-lighted sections of Codornices Creek's riparian woodland is mostly restricted, as these sections are limited to private property (with the exception of one location on Masonic Avenue).

(5) Beach/Sand Dune. Beach/Sand dune habitat is present at Albany Beach. This sandy beach provides important habitat because of its limited distribution on the East Bay shoreline and potential use by roosting and foraging shorebirds. The small dune field east of the wave-swept sand at Albany Beach is also an uncommon feature on the East Bay shoreline and has the potential to provide high tide refugia for birds and other animals. The dunes at Albany Beach are mostly vegetated by non-native plants; however, they do support two indicator species associated with a sensitive natural

community formerly classified as “Northern Foredunes.”²⁰ This community typically is dominated by perennial grasses and low, often succulent, perennial herbs and subshrubs. The plants in this community are adapted to moving sands and salt-laden winds. Although typical northern foredunes vegetation with its characteristic native plant associations is absent from the City (e.g., bur-sage [*Ambrosia* sp.] and sea rocket [*Cakile maritime*]), non-native species, are abundant.

(6) Salt Marsh/Tidal Mudflat. This vegetation/cover type includes both salt marsh and tidal mudflats shown in Figure IV.J-1. Salt marsh is a highly productive community consisting of salt-tolerant, hydrophytic plants that form moderate to dense cover. Plants are usually segregated vertically depending on their tolerance of inundation and saline soils. This vegetation/cover type is typically associated with and occurs adjacent to intertidal mudflats or sloughs that are devoid of vegetation; during an ebb tide, the bottom is bare mud, cobble, or rock. This habitat type occurs along the Albany waterfront, specifically within the Albany Mudflats Ecological Reserve (an area that includes the eastern shore of the Albany Bulb) and at the mouth of Codornices Creek (at Buchanan Street and Golden Gate Fields).

Salt marshes within the City are similar in vertical structure, starting at the low elevation mudflat to the adjacent upland vegetation. Typically, mudflats are bordered by pure stands of cordgrass (*Spartina foliosa*) that are replaced at the mean high water level by a dense cover of pickleweed (*Salicornia pacifica*). Characteristic plants of the upper pickleweed zone are alkali heath (*Frankenia salina*), marsh rosemary (*Limonium californicum*), jaumea (*Jaumea carnosa*), and salt grass (*Distichlis spicata*). Marsh gumplant (*Grindelia stricta* var. *angustifolia*) is common along the edges of tidal sloughs that are infrequently inundated. The upper salt marsh zone is often dominated by saltgrass, interspersed with sand-spurrey (*Spergularia* sp.), jaumea, and other salt-tolerant native and non-native plants.

(7) Freshwater/Brackish Marsh/Seasonal Wetland. This vegetation type supports vegetation that is adapted to permanently or seasonally flooded soils (wetlands). This vegetation type covers only in small areas and therefore is not shown on Figure IV.J-1 or listed in Table IV.J-1. This vegetation type occurs in the lower reaches of Cerrito Creek, Village Creek, Middle Creek, and Codornices Creek (primarily east of I-80). The vegetation in the marshes associated with freshwater seeps and creek sections that receive minimal tidal exchange consists of dense cattails (*Typha* sp.) and other obligate wetland plants including: arroyo willow, tall flat sedge (*Cyperus eragrostis*), and watercress (*Nasturtium officinale*). Seasonal wetlands that occur as the result of impoundment of rainwater are also found within the City: in grassy areas on the Albany Plateau, adjacent to the Union Pacific railroad right-of-way, in the undeveloped land that ranges from Pierce Street in the east to the areas north and south of Buchanan Street near I-80, and within a network of interdune swales west of the gravel parking area behind Golden Gate Fields at Albany Beach.

Plants typical of freshwater seasonal wetlands consist of predominantly non-native grasses and herbaceous species, including Italian ryegrass (*Festuca perennis*), Mediterranean barley (*Hordeum marinum* subsp. *gussoneanum*), curly dock (*Rumex crispus*), Bermuda grass, and cutleaf plantain.

²⁰ Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. California Department of Fish and Game. 156 pp.

(8) Ruderal. Ruderal defines a general category of vegetation that occurs in developed areas and disturbed landscapes. Ruderal vegetation is typically dominated by weedy, non-native plant species and usually consists of non-native shrubs, broadleaved species and grasses, but some native species may also be present. Ruderal vegetation is widely distributed throughout the City and ranges in size from small strips (i.e., neglected sidewalk planting strips) to medium-sized parcels (vacant lots), to large expanses of open space (Albany Neck). Only the large ruderal areas within the City are shown on Figure IV.J-1. Native species occurring in ruderal areas include: coyote brush, coast live oak, arroyo willow, and poison oak. Non-native plant species in ruderal areas include: blackwood acacia (*Acacia melanoxylon*), silver wattle (*Acacia dealbata*), black mustard (*Brassica nigra*), Italian thistle (*Carduus pyncocephalus*), French broom (*Genista monspessulana*), Bermuda buttercup (*Oxalis pes-caprae*), firethorn (*Pyracantha* sp.), cotoneaster (*Cotoneaster* sp.), pampas grass (*Cortaderia* sp.), ripgut brome, soft chess, bull thistle, and fennel. Bermuda buttercup is one of the most prevalent plants observed throughout the City and also occurs in all other habitat types except for salt marsh.

Ruderal vegetation is also the dominant cover type at Fleming Point, which is a land mass that existed before extensive landfill occurred within the historic bay shoreline. Characteristic ruderal herbaceous species in this area include wild oats (*Avena* sp.), sheep sorrel (*Rumex acetosella*), English plantain (*Plantago lanceolata*), and vetch (*Vicia* sp.).

(9) Agricultural Research/Community Garden. Land used for agricultural research or community gardens is located within the City. Two separate areas are present at the University Village: (1) small plots used for community gardens between West End Way and the Union Pacific railroad right-of-way, are available exclusively for University Village residents; and (2) agricultural research and community garden areas in the northeast bordered by Jackson Street to the west and Buchanan Street to the north. Sites of small scale community gardens within the City are also located at the Albany Children's Center (720 Jackson Street), Memorial Park Edible Landscape Project (Carmel Avenue), and Ocean View Community Garden (in Ocean View Park, 900 Buchanan Street). Additional sites may also be present at other locations within the City.

(10) Open Water. Open water within the City consists of two types: freshwater and saltwater. Freshwater habitats include the ponds at Golden Gate Fields, which are primarily un-vegetated. Saltwater habitats include tidal sloughs (i.e., lower Cerrito and Codornices Creeks) and the open waters of San Francisco Bay. Near shore this cover type is closely associated with the salt marsh and tidal mudflat areas.

(11) Creek. Approximately 19,095 linear feet (approximately 3.62 miles) of day-lighted (open) creek channels are located within the City. These creeks are Cerrito Creek, Codornices Creek, Middle Creek, and Village Creek. Cerrito and Codornices Creeks originate in the Berkeley Hills to the east and flow through Berkeley before entering the City. Marin Creek is also located within the City, but is completely underground in culverts beneath urban areas and drains to an outfall at the Albany Mudflats Ecological Reserve. Because Marin Creek is underground in a culvert, it provides negligible habitat, if any. Middle Creek also has only short stretches that are day-lighted before flowing into Cerrito Creek.

Within the City, Cerrito Creek has sections that flow both below ground in closed culverts (underground and under roadways) and day-lighted sections that flow through open concrete and earthen channels. Cerrito Creek starts its journey within the City in a backyard just east of Curtis Street. From there, no definite signature of the creek (as seen from aerial photos) is apparent until Talbot Avenue. West of Talbot Avenue, the freshwater section of Cerrito Creek is open to daylight where it flows through earthen and concrete channels to Pierce Street. From Pierce Street to the San Francisco Bay, Cerrito Creek becomes a tidal slough as it flows through an earthen and riprap reinforced channel.

Codornices Creek has sections that flow both below ground in closed culverts (underground and under roadways) and daylight sections that flow through open concrete and earthen channels. Codornices Creek starts its journey within the City in an earthen channel that is open from the southeast corner of Saint Mary's College High School to the rear of residences on Ordway Street. From there, the aerial imagery signature of open creek channel appears and disappears between residential blocks until it reaches San Pablo Avenue. West of San Pablo Avenue, the freshwater section of Codornices Creek is open to daylight where it flows through earthen and concrete channels to I-80. After crossing beneath I-80, Codornices Creek makes a bend to the north where it becomes a tidal slough associated with an isolated tidal salt marsh before emptying in to the San Francisco Bay through the Albany Mudflats Ecological Reserve.

Village Creek is underground east of San Pablo Avenue and partially aboveground west of San Pablo Avenue (Figure IV.J-1). West of San Pablo Avenue, the open creek channel of Village Creek flows north of Monroe Street through University Village. After flowing beneath the Union Pacific railroad right-of-way, the final daylight freshwater segment of Village Creek appears north of the Target store before crossing beneath I-80 and joining with the tidal section of Codornices Creek.

c. Wildlife Habitat Values. The following sections provide information on wildlife species expected to occur in each vegetation/cover type described above. Not every species mentioned was observed during reconnaissance-level surveys, and several species not mentioned may nevertheless occur within the City. As such, the following discussion should not be interpreted as an exhaustive list of every species that may potentially occur, but rather a broad overview of wildlife communities within each vegetation/cover type.

(1) Urban. Most wildlife species that use urban areas are generalists that have adapted to human-modified habitats, and individual species that are present at any particular location will vary depending on the vegetation and other habitat features in an area. Industrial and commercial areas typically have less ornamental plantings and open lawns than residential neighborhoods and urban parks, and thus support fewer species. Species that use industrial and commercial areas are able to use ornamental landscaping as foraging habitat and/or escape cover, and some are able to exploit building crevices, rooftops, and/or ledges on buildings for nesting and/or roosting. Common urban bird species expected to use such features include mourning dove (*Zenaidura macroura*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), house finch (*Haemorhous mexicanus*), and house sparrow (*Passer domesticus*). Residential neighborhoods and urban parks contain more trees, shrubs, and lawns than industrial and commercial areas, and thus support additional bird species such as Cooper's hawk (*Accipiter cooperi*), Anna's hummingbird (*Calypte anna*), northern flicker (*Colaptes auratus*), downy woodpecker (*Picoides pubescens*), black phoebe (*Sayornis nigra*), western scrub-jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), chestnut-backed chickadee (*Poecile*

rufescens), bushtit (*Psaltriparus minimus*), brown creeper (*Certhia americana*), Bewick's wren (*Thryomanes bewickii*), California towhee (*Melospiza crissalis*), and American goldfinch (*Carduelis tristis*). Many of these species also occur in undisturbed, more natural habitats (e.g., oak woodland, riparian woodland) throughout the Bay Area, but have successfully adapted to urban landscapes. During the winter, the resident bird community is supplemented by species that breed farther north or at higher elevations, such as cedar waxwing (*Bombycilla cedrorum*), ruby-crowned kinglet (*Regulus calendula*), yellow-rumped warbler (*Dendroica coronata*), Townsend's warbler (*Dendroica townsendi*), and golden-crowned sparrow (*Zonotrichia atricapilla*). All of these species may occur in adjacent residential areas, as well, provided that large remnant oaks or other mature trees are present.

Several amphibian and reptile species may occur in urban areas if suitable cover is present. Ornamental shrubs, leaf litter, and well-watered lawns provide cover and foraging habitat for Sierran treefrog (*Pseudacris sierra*), arboreal salamander (*Aneides lugubris*), and California slender salamander (*Batrachoseps attenuatus*). Such species are more likely to occur in residential areas or parks rather than industrial or commercial areas.

Mammal species expected to occur in urban areas include Virginia opossum (*Didelphis virginiana*), fox squirrel (*Sciurus niger*), Botta's pocket gopher (*Thomomys bottae*), house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), black rat (*Rattus rattus*), northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and black-tailed deer (*Odocoileus hemionus*).

(2) Grassland. The majority of grasslands within the City are located in the Albany Plateau, University Village, and beneath I-80 (Figure IV.J-1). Grasslands provide foraging habitat for raptors such as white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), and burrowing owl (*Athene cunicularia*). Burrowing owls are a California Species of Special Concern (see below) and are closely associated with California ground squirrels (*Otospermophilus beecheyi*). Other bird species typically associated with grasslands include killdeer (*Charadrius vociferus*), American pipit (*Anthus rubescens*), savannah sparrow (*Passerculus sandwichensis*), western meadowlark (*Sturnella neglecta*), and red-winged blackbird (*Agelaius phoeniceus*). Large flocks of Canada geese feed in the undeveloped grasslands along the Albany waterfront, as well as in the adjacent landscaped areas with manicured lawns, such as those present at the U.S. Department of Agriculture office complex. Common amphibian and reptile species expected to occur in grasslands include western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), common kingsnake (*Lampropeltis getula*), western toad (*Anaxyrus boreas*), common garter snake (*Thamnophis sirtalis*), southern alligator lizard (*Elgaria multicarinatus*), and Sierran treefrog. Areas with accumulated thatch and sufficient grass cover are likely to support small mammal species such as deer mouse (*Peromyscus maniculatus*), western harvest mouse (*Reithrodontomys megalotis*), California vole (*Microtus californicus*), and Botta's pocket gopher. Other common mammal species expected to occur in grasslands include black-tailed jackrabbit (*Lepus californicus*), northern raccoon, striped skunk, and black-tailed deer.

(3) Woodlands. Many of the same wildlife species that occur in urban areas also use woodlands since such areas within the City largely consist of narrow corridors (e.g., the Cerrito and Codornices Creek mixed riparian woodland and the Albany Hill coast live oak and eucalyptus woodlands) within an otherwise urbanized landscape. Nevertheless, the somewhat higher structural diversity of riparian woodland along portions of Cerrito, Village, Middle, and Codornices Creeks (e.g., between I-80 and San Pablo Avenue) provides habitat for understory species such as spotted

towhee (*Pipilo maculatus*), fox sparrow (*Passerella iliaca*), and hermit thrush (*Catharus guttatus*), the latter two of which winter but do not breed in the Bay Area. This increased structural diversity also provides stopover habitat for migratory species such as Pacific-slope flycatcher (*Empidonax difficilis*), yellow warbler (*Setophaga petechia*), Wilson's warbler (*Wilsonia pusilla*), and western tanager (*Piranga ludoviciana*). Some of these species may forage in adjacent residential areas, as well. Larger trees and snags along these creeks provide nesting habitat for red-shouldered hawk (*Buteo lineatus*), Cooper's hawk, and downy woodpecker.

The eucalyptus and oak trees on Albany Hill, mature trees at the University Village, and the blue gum eucalyptus grove next to Albany Beach provide nesting habitat for raptors such as red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk. Urban-adapted songbirds such as northern mockingbird, American goldfinch, and house finch also may nest in the grove and other nearby ornamental trees.

The increased leaf litter, moisture content, and, in some areas, understory vegetation, of woodland habitats provides increased foraging opportunities and cover for amphibians and reptiles. Many of the same species that inhabit the urban and grassland areas are also likely to occur in woodlands, especially species that prefer leaf litter and woody ground cover such as arboreal salamander and California slender salamander.

Most of the same mammal species that occur in urban areas are expected to use woodland habitats. The linear nature of most of the woodlands within the City facilitates movement and dispersal for these species through the urban environment. Larger trees and snags along Cerrito, Middle, Village, and Codornices Creeks and on Albany Hill may occasionally support bat species such as big brown bat (*Eptesicus fuscus*), hoary bat (*Lasiurus cinereus*) (winter and migration only), pallid bat (*Antrozous pallidus*), Brazilian free-tailed bat (*Tadarida brasiliensis*), and Yuma myotis (*Myotis yumanensis*).

(4) Salt Marsh/Tidal Mudflat. Salt marshes and tidal mudflats support a variety of wildlife species specifically adapted to the salt-tolerant vegetation, channels and sloughs, and tidal regimes that characterize these areas. Along with open water, this habitat type supports a great diversity of wildlife within the City. Salt marshes provide foraging habitat for special-status raptors such as northern harrier and white-tailed kite. Tidal mudflats support a diverse benthic macroinvertebrate community which in turn attracts large numbers of migrating and wintering shorebirds such as willet (*Tringa semipalmata*), long-billed curlew (*Numenius americanus*), marbled godwit (*Limosa fedoa*), dowitchers (*Limnodromus* spp.), and various sandpipers (*Calidris* spp.). These species forage on mudflats as they are exposed by receding tides, often concentrating at the water's edge where worms, crustaceans, and bivalves are closer to the mud's surface. Vegetated portions of tidal marshes are not heavily used by shorebirds, although willets tend to forage next to pools created on the marsh plain during extremely high tides. Wading birds such as snowy egret (*Egretta thula*), great egret (*Ardea alba*), and great blue heron (*Ardea herodias*) forage along the margins of tidal channels and marsh edges. Dabbling (i.e., surface-feeding) ducks such as mallard (*Anas platyrhynchos*), gadwall (*Anas strepera*), green-winged teal (*Anas crecca*), American wigeon (*Anas americana*), northern pintail (*Anas acuta*), northern shoveler (*Anas clypeata*), and cinnamon teal (*Anas cyanoptera*) forage over inundated mudflats and tidal channels.

The Albany Mudflats Ecological Reserve provides valuable foraging habitat for large concentrations of shorebirds that migrate through or winter in the San Francisco Bay Estuary. Western and least sandpiper (*Calidris mauri*, *C. minutilla*), dunlin (*Calidris alpina*), dowitchers (*Limnodromus* spp.), marbled godwit (*Limosa fedoa*), and willet (*Tringa semipalmata*) are some of the more abundant shorebird species known to occur in the San Francisco Bay Estuary during these periods,²¹ and all of these species are common to abundant at Eastshore State Park.^{22,23} During high tides when mudflats are unavailable for foraging, shorebirds roost on old piers, remnant dock structures, breakwaters, and other barren areas above the high tide line that are free of disturbance.²⁴

When inundated by high tides, tidal channels and mudflats provide important foraging habitat for a variety of estuarine fish species, including bat ray (*Myliobatis californica*), leopard shark (*Triakis semifasciata*), northern anchovy (*Engraulis mordax*), topsmelt (*Atherinopsis affinis*), American shad (*Alosa sapidissima*), striped bass (*Morone saxatilis*), staghorn sculpin (*Leptocottus armatus*), yellowfin goby (*Acanthogobius flavimanus*), and shiner surfperch (*Cymatogaster aggregata*).

Amphibian or reptile use of tidal marshes and mudflats is limited due to high salinity and risk of drowning. Western fence lizards and southern alligator lizards have been observed on dikes and outfall structures adjacent to marsh habitats,²⁵ but are not expected to use portions of the marsh subject to tidal influence.

Mammal species known to use tidal marshes include black-tailed jackrabbit, Botta's pocket gopher, and California ground squirrel. California voles and western harvest mice may use the pickleweed portions of the marsh during low tides.

(5) Freshwater/Brackish Marsh. Freshwater and brackish marsh within the City provides foraging and nesting habitat for many of the species that occur in the tidal marshes and mudflats, as well as a few bird species specifically adapted to the dense vegetation (i.e., cattails and tules) and wet soils that characterize such habitats. Species that occur in this habitat include Wilson's snipe (*Gallinago delicata*), marsh wren (*Cistothorus palustris*), song sparrow, red-winged blackbird, egrets, and great blue herons, as well as mammalian predators such as northern raccoon and striped skunk. Wetter portions of freshwater marshes that remain ponded throughout the spring provide breeding habitat for Sierran treefrog, western toad, and common garter snake.

²¹ Stenzel, L.E., C.M. Hickey, J.E. Kjelmyr, and G.W. Page, 2002. *Abundance and Distribution of Shorebirds in the San Francisco Bay Area*. *Western Birds* 33:69–98.

²² Golden Gate Audubon, 2006. *A Census of the Birdlife in the Eastshore State Park: October 2005–September 2006*. Prepared by members of Golden Gate Audubon, Berkeley, California.

²³ LSA, personal observation.

²⁴ LSA Associates, Inc., 2002b. Recreation, Scenic, and Cultural Resources section in *Eastshore Park Project Resource Inventory*. Prepared for California Department of Parks and Recreation, East Bay Regional Park District and California State Coastal Conservancy, February 2002.

²⁵ LSA, personal observation.

(6) **Ruderal.** As described above, ruderal vegetation is primarily found at Fleming Point, the Albany Bulb, Albany Neck, and portions of the Albany Plateau, which are dominated by coyote brush and/or dense patches of ruderal forbs. The amphibian, reptile, and mammal species composition of this vegetation type is expected to closely resemble that of urban and grassland habitats. Ruderal habitats do not support any distinctive bird species but those species that do occur in ruderal areas tend to favor shrubs or other dense vegetation. Such species include western scrub-jay, American robin, northern mockingbird, Bewick's wren, California towhee, white-crowned sparrow, and golden-crowned sparrow. If located near extensive grasslands or marsh, coyote brush shrubs represent ideal nest sites for white-tailed kites.

California ground squirrel and Botta's pocket gopher (*Thomomys bottae*) were the only mammal species detected during LSA's reconnaissance survey; these species primarily occur in the northern portion of the planning area on the Albany Neck, where the abundant construction debris and riprap provides numerous crevices, recesses, and nooks that provide cover from predators.

(7) **Agricultural Research/Community Garden.** Similar to ruderal areas, the wildlife species composition of agricultural research or community garden areas within the City closely resembles that of nearby habitats and does not contain any unique habitat specialists. Depending on the specific habitat features present, agricultural research areas are likely to support species that occur in urban, grassland, and woodland habitats. Species observed in agricultural research and community garden areas in University Village include wild turkey (*Meleagris gallopavo*), rock pigeon, mourning dove, Canada goose, American crow, and red-winged blackbird.²⁶

(8) **Open Water.** Open water habitats within the City include the San Francisco Bay and the freshwater ponds at the Golden Gate Fields. The San Francisco Bay has high value as habitat for resident, migrating, and wintering waterbirds (e.g., shorebirds, waterfowl, wading birds, grebes, cormorants, pelicans, terns, and gulls). In addition to providing foraging and roosting habitat for wintering and migrating shorebirds and waterfowl, open water provides habitat for California gull (*Larus californicus*), western gull (*Larus occidentalis*), Caspian tern (*Hydropogone caspia*), and Forster's tern (*Sterna forsteri*). Diving ducks, such as greater scaup (*Aythya marila*), bufflehead (*Bucephala albeola*), and ruddy duck (*Oxyura jamaicensis*), winter in large numbers in the open waters of San Francisco Bay. Common goldeneye (*Bucephala clangula*), double-crested cormorant (*Phalacrocorax auritus*), American wigeon (*Anas americana*), American coot (*Fulica americana*), Canada goose, mallard, ruddy duck, bufflehead, scaup, grebes, and various gull species occur in the Bay. Other waterbird species expected to use open water habitats within the City include pied-billed grebe (*Podilymbus podiceps*), horned grebe (*Podiceps auritus*), eared grebe (*Podiceps nigricollis*), western grebe (*Aechmophorus occidentalis*), Clark's grebe (*Aechmophorus clarkii*), American white pelican (*Pelecanus erythrorhynchos*), and California brown pelican (*Pelecanus occidentalis californicus*). Some of the waterfowl species that use the bay, such as mallard, Canada goose, and gulls also use the freshwater ponds at Golden Gate Fields.

²⁶ LSA, personal observation.

Inshore waters and mudflats in and adjacent to the City are used by game fish species such as California halibut (*Paralichthys californicus*), starry flounder (*Platichthys stellatus*), and striped bass (*Morone saxatilis*). Smaller schooling fish, such as topsmelt (*Atherinops affinis*), northern anchovy (*Engraulis mordax*), and Pacific herring (*Clupea pallasii*), would be expected in deeper water in the City and are important as food for game fish and fish-eating birds. The longjaw mudsucker (*Gillichthys mirabilis*), a typical species of shallow bays and mud flats, is also likely present in the City. Elasmobranchs typical of near shore waters in San Francisco Bay and likely present within the City boundary include leopard shark (*Triakis semifasciata*), brown smoothhound (*Mustelus henlei*), and bat ray (*Myliobatis californicus*).²⁷ The sevengill shark (*Notorynchus cepedianus*), a large and powerful predator, also occurs in San Francisco Bay and will forage in shallow water.²⁸ This species may also occasionally occur in the City.

Numerous other fish species are present in the near shore waters of the City, such as the bay pipefish (*Syngnathus leptorhynchus*), shiner surfperch (*Cymatogaster aggregata*),²⁹ and Pacific herring (*Clupea pallasii*).³⁰

Several special-status fish species occur in San Francisco Bay, including many distinctive populations of salmon and steelhead, that have unique genetically based adaptations to local and regional environments.³¹ Some of these distinctive populations, often referred to as runs or stocks, are recognized by the resources agencies as evolutionarily significant units (ESU). Several ESUs of salmon and steelhead could occasionally occur in the waters adjacent to the City. While juveniles of these species may find suitable habitat in eelgrass beds, generally these species would be expected in the deeper water channels of the Bay. The green sturgeon (*Acipenser medirostris*) is another special-status fish species that could occasionally occur in the City, but as with salmon and steelhead this anadromous species generally is found in deeper water channels.

The rocky shoreline that characterizes much of the Albany waterfront provides habitat for shorebird species that favor rocky intertidal habitats, such as black oystercatcher (*Haematopus bachmani*), black and ruddy turnstones (*Arenaria melanocephala*, *A. interpres*), and surfbird (*Aphriza virgata*), although the latter two are considered rare in the City.³² The presence of such rocky shore specialists is somewhat noteworthy for this location given that none of these species are abundant in San Francisco Bay, numbering at most in the low hundreds.³³

²⁷ Ebert, D.A., 2003. *Sharks, Rays, and Chimaeras of California*. University of California Press. Berkeley, CA.

²⁸ Ibid.

²⁹ Carr, L.A., K.E. Boyer and A.J. Brooks. In review. Patterns in epifaunal community structure in San Francisco Bay eelgrass (*Zostera marina*) beds.

³⁰ Spratt, J.D., 1981. *The Evolution of California's Herring Roe Fishery: Catch Allocation, Limited Entry and Conflict Resolution*. California Fish and Game 78: 20-44.

³¹ Moyle, P.B., 2002. *Inland Fishes of California*. University of California Press, Berkeley.

³² Golden Gate Audubon, 2006. *A Census of the Birdlife in the Eastshore State Park: October 2005–September 2006*. Prepared by members of Golden Gate Audubon, Berkeley, California.

³³ Takekawa, J.Y., et al., 2000. *Waterfowl and Shorebirds of the San Francisco Bay Estuary*. Pages 309–316 in P. R. Olofson, editor. *Baylands Ecosystem Species and Community Profiles: Life Histories and Environmental Requirements of Key Plants, Fish, and Wildlife*. Prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. San Francisco Bay Regional Water Quality Control Board, Oakland, California.

(9) Creeks. Cerrito, Codornices, Middle, and Village Creeks support a variety of both native and introduced fish species. Native fish species known to occur in one or more of these creeks include prickly sculpin (*Cottus asper*) and threespine stickleback (*Gasterosteus aculeatus*). Introduced species include rainwater killifish (*Lucania parva*), western mosquitofish (*Gambusia affinis*), and striped bass (*Morone saxatilis*).³⁴ Native rainbow trout/steelhead, a federally threatened species, also occur in Codornices Creek.³⁵ Another creek, Marin Creek, is located within the City, but is completely culverted beneath developed (urban) areas and provides negligible habitat for plants, fish, or wildlife.

Many of the same amphibian species that occur in urban areas, particularly Sierran treefrog and western toad, likely use creeks for breeding, foraging, and dispersal. Common garter snakes are good swimmers and also likely use creeks for such purposes. Although none have been recorded to date,³⁶ the creeks within the City also contain suitable habitat for western pond turtles (*Actinemys marmorata*).

Within the urban environment, wading birds such as great and snowy egrets and great blue heron are most likely to be found along creeks. Creeks also provide ideal foraging habitat for cliff swallows (*Petrochelidon pyrrhonata*), barn swallows (*Hirundo rustica*), Alameda song sparrow, and black phoebe.

d. Special-Status Species and Sensitive Habitats. This section outlines special-status species and sensitive habitats within the City.

(1) Special-Status Plants. Forty-five (45) special-status vascular plant species were evaluated for their potential to occur in the City. These special-status plant species are listed in Table IV.J-2. Two criteria were used to select these plants: records from the California Natural Diversity Database³⁷ (either extant or extirpated) indicate the species occurs within a 5-mile radius of the planning area; or its potential presence in the City was indicated in a search of the database of *Rare, Unusual and Significant Plants of Alameda and Contra Costa Counties*.³⁸ Twenty-three (23) of these plants show no potential of occurrence based on the absence of suitable habitat, high levels of disturbance, or being outside of the species normal elevation range. Twelve (12) of the plants show a low potential of occurrence based on presence of marginal habitat resulting from degradation by human use or crowding out by invasive weeds. Ten (10) of the plants show a moderate to high potential of occurrence based upon presence of suitable, undisturbed habitat. This moderate potential is particularly true at the Albany Mudflats Ecological Reserve within the City, in which three of these plants are present.

³⁴ Leidy, R. A., 2007. *Ecology, Assemblage Structure, Distribution, and Status of Fishes in Streams Tributary to the San Francisco Estuary, California*. San Francisco Estuary Institute Contribution No. 530. San Francisco Estuary Institute, Oakland, California.

³⁵ Ibid.

³⁶ California Department of Fish and Wildlife, 2015a., op. cit.

³⁷ Ibid.

³⁸ Lake, Diane, 2010. *Rare, Unusual and Significant Plants of Alameda and Contra Costa Counties*. Eighth Edition. March 15, 2010. California Native Plant Society.

California sea lavender (*Limonium californicum*, locally rare), California cordgrass (*Spartina foliosa*, locally rare), and sand spurrey (*Spergularia macrotheca* var. *macrotheca*, locally rare) all occur within the City at the Albany Mudflats Ecological Reserve.

Point Reyes salty bird's-beak (*Chloropyron maritimum* subsp. *palustre*, CRPR 1B), seaside golden yarrow (*Eriophyllum staechadifolium*, locally rare), Oregon ash (*Fraxinus latifolia*, locally rare), low bulrush (*Isolepis cernua*, locally rare), Marin knotweed (*Polygonum marinense*, CRPR 3.1), hedge nettle (*Stachys ajugoides* var. *ajugoides*, locally rare), and Suisun Marsh aster (*Symphytichum lentum*, CRPR 1B) may occur within the City based on suitable habitat present at Albany Beach, the Albany Mudflats Ecological Reserve, the riparian area adjacent to Albany Hill park, and marshy benches adjacent to freshwater seeps and creeks.

Twenty-two (22) plants in Table IV.J-2 were considered unlikely to occur in the City because they inhabit habitats or soils that are not present in the City (i.e., coastal sage scrub, chaparral, vernal pools, and serpentine soils). These habitat and soil types occur in other parts of Alameda County.

(2) Special-Status Animals. Based on a review of the CNDDDB and other sources identified below, LSA identified 32 special-status animal species known to occur or potentially occur in the vicinity of Albany. These species are listed in Table IV.J-3. Three of these species are not likely to occur within the City due to a lack of suitable habitat. The following 11 special-status species may occasionally pass through or forage within the City, but are not known or expected to breed in the City: green sturgeon (*Acipenser medirostris*), both the Sacramento River winter-run and Central Valley spring-run Evolutionarily Significant Units of Chinook salmon (*Oncorhynchus tshawytscha*), redhead (*Aythya americana*), American white pelican (*Pelecanus erythrorhynchos*), California brown pelican (*Pelecanus occidentalis californicus*), bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), American peregrine falcon (*Falco peregrinus anatum*), western snowy plover (*Charadrius alexandrinus nivosus*), and short-eared owl (*Asio flammeus*). The salt marsh wandering shrew (*Sorex vagrans halicoetes*) is not known to occur in the City.³⁹ The remaining special-status species are discussed in further detail below.

³⁹ California Department of Fish and Wildlife, 2015a, op. cit..

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Ambrosia chamissonis</i> Silver beachweed	A2	Coastal strand, sand Elevation: 0-480 m. Blooms: June-July	Low potential for occurrence. Although some sand dunes exist at Albany Beach, and this habitat may have been more extensive prior to the development of Golden Gate Fields, the current habitat conditions within the City are highly disturbed. The East Bay Chapter of the California Native Plant Society considers the Albany shoreline as potential habitat for this species. ⁴⁰
<i>Amsinckia lunaris</i> Bent-flowered fiddleneck	1B	Occurs in coastal bluff scrub, cismontane woodland, valley and foothill grassland. Elevation: 3-500 m. Blooms: March-June	Low potential for occurrence. No suitable habitat is present on-site due to past disturbance and development. Nearest occurrence is within 3 miles of the City on San Pablo Ridge.
<i>Arctostaphylos pallida</i> Pallid manzanita	FT/CE/1B	Broadleafed upland forest, close coned coniferous forest, cismontane woodland, coastal scrub, and chaparral. Grows on siliceous shale, sandy, or gravelly substrates in uplifted marine terraces. Elevation: 185-465 m. Blooms: December-March	No potential for occurrence. Although cismontane woodland habitat is present in the City, these habitats are below the elevation range for this species. Nearest remaining natural occurrences are in Sobrante Ridge Regional Preserve, approximately 6 air miles northeast of the City.
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	1B	Occurs in mesic alkaline and adobe clay soils in valley and foothill grassland, adjacent to vernal pools. Elevation: 1-60 m. Blooms: March-June	Low potential for occurrence. No suitable habitat is present on-site due to past development and disturbance. Nearest known records are in Emeryville, approximately 3.5 miles south of the City. There are no recent records; species presumed extirpated from the City.
<i>California macrophylla</i> Round-leaved filaree	1B	Grassy openings in cismontane woodland, valley and foothill grassland with clay soils Elevation: 15-1,200 m. Blooms: March-May	Low potential for occurrence. Although grassy openings in cismontane woodland habitat are present on Albany Hill, the potential for this species to occur is low due to the density of invasive plants and foot traffic. The closest CNDDDB occurrence (#54) is an extirpated population from the U.C. Berkeley campus, approximately 0.6 miles from the City. Furthermore, all of the occurrences for this species within 10 miles of the City are from the late 19th century with no current occurrences recorded.

⁴⁰ Lake, Diane, 2010, op. cit.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Calystegia purpurata</i> subsp. <i>saxicola</i> Coastal bluff morning-glory	1B	North Coast coniferous forest, coastal dunes, and coastal scrub Elevation: 10-105 m. Blooms: March-May	No potential for occurrence. No suitable habitat is present on-site due to past development and disturbance. The closest CNDDDB occurrence (#1) is from a presumed extant population on Brooks Island, approximately 0.48 miles from the City.
<i>Carex comosa</i> Bristly Sedge	2	Occurs in freshwater wetlands and lake margins in coastal prairie, marshes and swamps, valley and foothill grassland. Elevation: 0-425 m. Blooms: May-September	No potential for occurrence. Although habitat for this species may have been present prior to the development and fill of the Albany Plateau, the current habitat conditions within the City are unlike those required for this species. The closest CNDDDB occurrence (#10, possibly extirpated) is an 1866 record from an unspecified “swamp” location in San Francisco, approximately 4.1 miles west of the City.
<i>Castilleja affinis</i> var. <i>neglecta</i> Tiburon paintbrush	FE/CT/1B	Valley and foothill grassland (serpentine) Elevation: 60-400 m. Blooms: April-June	No potential for occurrence. Although valley and foothill grassland is present on Albany Hill, the soils there are not serpentine. The closest CNDDDB occurrence (#2) is from a presumed extant population in serpentine grassland in Tiburon, approximately 4.3 miles west of the City.
<i>Chloropyron maritimum</i> subsp. <i>palustre</i> [= <i>Cordylanthus maritimus</i> subsp. <i>palustris</i>] Point Reyes salty bird’s-beak	1B	Marshes and swamps (coastal salt) Elevation: 0-10 m. Blooms: June-October	Moderate potential for occurrence. Suitable habitat for this species may be present in the Albany Mudflats Ecological Reserve. The closest CNDDDB occurrence (#21, possibly extirpated) is an 1891 record from the generalized location along the Emeryville/Berkeley shoreline, approximately 2.5 miles south of the City.
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i> San Francisco Bay spineflower	1B	Coastal strand/dunes, coastal bluff scrub, coastal prairie, northern coastal scrub Elevation: 3-215 m. Blooms: April-August	No potential for occurrence. Although some sand dunes exist at Albany Beach, and this habitat may have been more extensive prior to the development of Golden Gate Fields, the current habitat conditions within the City are highly disturbed. The closest CNDDDB occurrence (#16, extirpated) is a 1881 record presumed to be west of what is now Lake Merritt in Oakland, approximately 3.8 miles to the south.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Cirsium andrewsii</i> Franciscan thistle	1B	Occurs in mesic areas of broadleaf upland forest, coastal bluff scrub, coastal prairie and coastal scrub; sometimes serpentinite. Elevation: 0-150 m. Blooms: March-July	No potential for occurrence. Although broadleaf upland forest is present on Albany Hill, this species is typically associated with serpentine seeps. The closest CNDDDB occurrence (#14) is from a presumed extant population from Tilden Regional Park, approximately 2.5 miles east of the City.
<i>Collinsia multicolor</i> San Francisco blue eyed Mary	1B	Closed-cone coniferous forest, coastal scrub and grassland on decomposed shale (mudstone) mixed with humus; in moist and shady areas and sometimes on serpentinite. Elevation: 30-250 m. Blooms: March-May	No potential for occurrence. The habitat conditions of the City are unlike those required for this species. The closest CNDDDB occurrence (#26) is from a presumed extant population from Angel Island State Park, approximately 2.7 miles northwest of the City.
<i>Dirca occidentalis</i> Western leatherwood	1B	Broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland on brushy slopes, mesic sites. Elevation: 30-395 m. Blooms: January-March	Low potential for occurrence. Although cismontane woodland is present on Albany Hill, the potential for this species to occur is low due to the density of invasive plants and foot traffic. The closest CNDDDB occurrence (#24) is from a presumed extant population in Tilden Regional Park, approximately 1.2 miles from the City.
<i>Eriogonum luteolum</i> var. <i>caninum</i> Tiburon buckwheat	1B	Chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland; often on serpentinite, gravelly to sandy soils. Elevation: 0-700 m. Blooms: May-September	No potential for occurrence. Although cismontane woodland and valley and foothill grassland are present on Albany Hill, the soils there are not serpentinite. The closest CNDDDB occurrence (#2) is from a presumed extant population in serpentinite grassland in Tiburon, approximately 4.3 miles west of the City.
<i>Eriophyllum staechadifolium</i> Seaside golden yarrow	A2	Coastal strand and coastal sage scrub Elevation: 0-150 m. Blooms: May-August	Moderate potential for occurrence. Although some sand dunes exist at Albany Beach, and this habitat may have been more extensive prior to the development of Golden Gate Fields, the current habitat conditions within the City are highly disturbed. The East Bay Chapter of the California Native Plant Society considers the Albany shoreline as potential habitat for this species. ⁴¹

⁴¹ Ibid.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Extriplex joaquinana</i> [= <i>Atriplex joaquiniana</i>] San Joaquin spearscale	1B	Seasonal alkali wetland, alkali sink/chenopod scrub, meadows and seeps, playas, valley and foothill grassland/alkaline Elevation: 1-835 m. Blooms: April-October	Low potential for occurrence. Although habitat for this species may have been present prior to the development and fill of the Albany Plateau, the current habitat conditions within the City are unlike those required for this species. The closest CNDDDB occurrence (#77, possibly extirpated) is a 1929 record from an unknown location at the “marshes of Oakland”, approximately 5 miles south of the City.
<i>Fraxinus latifolia</i> Oregon ash	B	Wetland riparian Elevation: 0-1,480 m. Blooms: April-May	Moderate potential for occurrence. Wetland riparian habitat occurs adjacent to Codornices Creek. The East Bay Chapter of the California Native Plant Society considers the Codornices Creek west of San Pablo Avenue and east of I-80 as potential habitat for this species. ⁴²
<i>Fritillaria liliacea</i> Fragrant fritillary	1B	Coastal scrub, valley and foothill grassland, and coastal prairie. Often on serpentine soils. Other various soils reported, though usually clay. Elevation: 3-410 m. Blooms: February-April	No potential for occurrence. Although habitat for this species may have been present prior to the development and fill of the Albany Plateau, the current habitat conditions within the City are unlike those required for this species. The closest CNDDDB occurrence (#57, possibly extirpated) is a 1900 record from a generalized location in present day Richmond, approximately 0.5 miles north of the City.
<i>Gilia capitata</i> subsp. <i>chamissonis</i> Blue coast gilia	1B	Coastal dunes and coastal scrub Elevation: 2-200 m. Blooms: April-July	No potential for occurrence. Although some sand dunes exist at Albany Beach, and this habitat may have been more extensive prior to the development of Golden Gate Fields, the current habitat conditions within the City are highly disturbed. The closest CNDDDB occurrence (#3, extirpated) is attributed to a location on the south side of Yerba Buena Island, approximately 4.2 miles southwest of the City.

⁴² Ibid.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Helianthella castanea</i> Diablo helianthella	1B	Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland, usually within rocky azonal soils Elevation: 60–300 m. Blooms: April-June	Low potential for occurrence. Cismontane woodland and valley and foothill grassland is present on Albany Hill. There are no records of this species from Albany Hill, and its presence is unlikely due to the intimate knowledge volunteer botanists and plant enthusiasts have of the vegetation at this location. ⁴³ The closest CNDDDB occurrence (# 84) is from a presumed extant population near Lawrence Hall of Science in Berkeley, approximately 1.8 miles from the City.
<i>Hemizonia congesta</i> subsp. <i>congesta</i> White seaside tarplant	1B	Valley and foothill grasslands; sometimes roadsides Elevation: 20-560 m. Blooms: April-November	Low potential for occurrence. Valley and foothill grassland is present on Albany Hill. There are no records of this species from Albany Hill, and its presence is unlikely due to the intimate knowledge volunteer botanists and plant enthusiasts have of the vegetation at this location. ⁴⁴ The closest CNDDDB occurrence (#2, presumed extant) is a late 19th to early 20th century observation from a generalized location in the southern part of San Francisco, approximately 4.1 miles southwest of the City.
<i>Hesperolinon congestum</i> Marin western flax	FT/CT/1B	Chaparral, valley and foothill grassland/serpentine Elevation: 5-370 m. Blooms: April-July	No potential for occurrence. Although valley and foothill grassland is present on Albany Hill, the soils there are not serpentine. The closest CNDDDB occurrence (#6) is from a presumed extant population in serpentine grassland in Tiburon, approximately 4.2 miles west of the City.
<i>Heteranthera dubia</i> Water star-grass	2	Wetland riparian, pond and lake margins; alkaline Elevation: 0-1,500 m. Blooms: July-August	No potential for occurrence. Although riparian vegetation is present along Cerrito and Codornices Creeks, the habitat is unlike that required for this species. The closest CNDDDB occurrence (#1, presumed extant) is an 1879 observation from a generalized location in the general vicinity of San Francisco, approximately 4.1 miles southwest of the City.

⁴³ Ertter, B., 1999. *The Value of Albany Hill*. From the website of the Friends of Albany Hill: www.imaja.com/as/environment/albanyca/valueofalbanyhill.html.

⁴⁴ Ibid.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Hoita strobilina</i> Loma Prieta hoita	1B	Chaparral, cismontane woodland, and riparian woodland on mesic serpentine sites Elevation: 30-860 m. Blooms: May-October	Low potential for occurrence. Although cismontane woodland is present on Albany Hill, the site is likely too dry to support this species. There is no serpentine on the site. The closest CNDDDB occurrence (#15) is from a presumed extant population in El Sobrante, approximately 4.0 miles from the City.
<i>Holocarpa macradenia</i> Santa Cruz tarplant	FT/CE/1B	Occurs in sandy-clay soil in coastal prairie, coastal scrub, and in valley and foothill grassland Elevation: 10-220 m. Blooms: June-October	No potential for occurrence. Although valley and foothill grassland is present on Albany Hill, this species is known to occur on sandy soils, which are absent from Albany Hill. All extant populations of this plant have been reintroduced. Suitable habitat for this species may be present in the Albany Mudflats Ecological Reserve. The closest CNDDDB occurrence (#20, extirpated) is from a 1916 record from the generalized location along the Emeryville/Berkeley shoreline, approximately 1.6 miles south of the City.
<i>Horkelia cuneata</i> subsp. <i>sericea</i> Kellogg's horkelia	1B	Occurs in closed-cone coniferous forest, maritime chaparral, coastal scrub, dunes and coastal sandhills; sandy or gravelly openings. Primarily found on old dunes and coastal sand hills. Elevation: 10-200 m. Blooms: April-September	No potential for occurrence. Although some sand dunes exist at Albany Beach, and this habitat may have been more extensive prior to the development of Golden Gate Fields, the current habitat conditions within the City are highly disturbed. The closest CNDDDB occurrence (#35, possibly extirpated) is attributed to a vague location in Oakland, approximately 3.8 miles south of the City.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Isolepis cernua</i> Low bulrush	B	Coastal salt marsh, freshwater wetlands, northern coastal scrub, and wetland riparian Elevation: 0-2,350 m. Blooms: June-February	Moderate potential for occurrence. Coastal salt marsh, marginal freshwater wetlands and some wetland riparian vegetation exists within the City. The East Bay Chapter of the California Native Plant Society considers the edges of Codornices Creek near its mouth, east of I-80 at the Albany/Berkeley border, as potential habitat for this species. ⁴⁵
<i>Layia carnosa</i> Beach layia	FE/CE/1B	Coastal dunes and coastal strand Elevation: 0-60 m. Blooms: March-July	Low potential for occurrence. Although some sand dunes exist at Albany Beach, and this habitat may have been more extensive prior to the development of Golden Gate Fields, the current habitat conditions within the City are highly disturbed. The closest CNDDDB occurrence (#6, extirpated) is attributed to dune hollows prior to the development of San Francisco, approximately 4.11 air miles southwest of the City. One historical observation in Alameda is from the area now occupied by the Port of Oakland. The closest extant population is at Point Reyes National Seashore.
<i>Leptosiphon rosaceus</i> Rose leptosiphon	1B	Coastal bluff scrub Elevation: 0-100 m. Blooms: April-July	No potential for occurrence. Due to the past disturbance, coastal bluff scrub is absent from the City. The closest CNDDDB occurrence (#6, presumed extirpated) is attributed to a vague location in San Francisco, approximately 4.1 miles from the City.
<i>Limonium californicum</i> <i>California sealavender</i>	1B	Coastal salt marsh and coastal strand. Elevation: 0-160 m. Blooms: June-September	Present within the City within the coastal salt marsh. The East Bay Chapter of the California Native Plant Society considers the Albany shoreline as potential habitat for this species. ⁴⁶ This species was observed at the Albany Mudflats Ecological Reserve.

⁴⁵ Lake, Diane, 2010, op. cit.

⁴⁶ Ibid.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
Mason's lilaepsis <i>Lilaeopsis masonii</i>	CR/1B	Tidal zone of freshwater and brackish marshes. Elevation: 0-1 m. Blooms: June-August	No potential for occurrence. Tidal zone of brackish marsh is limited at the Albany Mudflats Ecological Reserve during periods of high flows (winter and possibly spring rainy seasons) and therefore brackish conditions are not present long enough for this species colonize the site. This perennial herb is found on silty soils on eroding brackish slough banks, and occasionally on old wharf pilings. The closest CNDDDB occurrences are beyond five miles of the City from around Mare Island in Solano County. This species requires brackish waters with salt concentrations that are probably lower than at the salinity of the water in the City.
<i>Meconella oregana</i> White fairypoppy	1B	Coastal prairie, coastal scrub Elevation: 250-620 m. Blooms: March-April	No potential for occurrence. Due to the past disturbance, coastal bluff scrub is absent from the City. The closest CNDDDB occurrence (#4) is from a presumed extant population from Wildcat Canyon Regional Park, approximately 2.9 miles east of the City.
<i>Monardella villosa</i> subsp. <i>globosa</i> Robust monardella	1B	Openings in broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland Elevation: 100-915 m. Blooms: June-July (August)	Low potential for occurrence. Cismontane woodland and valley and foothill grassland habitat is present on Albany Hill. The taxonomy of this species is in question as the plant may show variance when growing in full sun or part shade. Nearest occurrence is within 3 miles of the City in Tilden Regional Park.
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	1B	Occurs in grassy and moist areas (ephemeral drainages) in chaparral, coastal prairie and coastal scrub Elevation: 15-160 m. Blooms: March-June	No potential for occurrence. Due to the past disturbance, coastal bluff scrub and costal prairie are absent from the City. The closest CNDDDB occurrence (#11, extirpated) is attributed a vague location in Oakland, approximately 3.8 miles from the City.
<i>Polemonium carneum</i> Oregon polemonium	2	Coastal prairie, coastal scrub, lower montane coniferous forest Elevation: 0-1,830 m. Blooms: April-September	No potential for occurrence. Due to the past disturbance, coastal bluff scrub and costal prairie are absent from the City. The closest CNDDDB occurrence (# 3) is from a presumed extant population from Angel Island State Park, approximately 2.7 miles northwest of the City.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Polygonum marinense</i> Marin knotweed	3	Marshes and swamps in coastal salt or brackish areas Elevation: 0-10 m. Blooms: April-October	Moderate potential for occurrence. Suitable habitat is present at within the Albany Mudflats Ecological Reserve. This perennial herb is often overlooked within pickleweed marsh habitat. The closest CNDDDB occurrences are beyond five miles of the City from the pickleweed marshes of the Napa River.
<i>Spartina foliosa</i> California cordgrass	B	Coastal salt marsh and wetland riparian Elevation: 0-220 m. Blooms: June-November	Present within the City within the brackish marsh and sloughs connected to the Albany Mudflats Ecological Reserve. The East Bay Chapter of the California Native Plant Society considers the Albany shoreline as potential habitat for this species. ⁴⁷
<i>Spergularia macrotheca</i> var. <i>macrotheca</i> Sand spurrey	A2	Wetland riparian Elevation: 0-340 m. Blooms: February-May	Present within the City along the upland areas of the brackish marsh and sloughs connected to the Albany Mudflats Ecological Reserve. The East Bay Chapter of the California Native Plant Society considers the Albany shoreline as potential habitat for this species. ⁴⁸
<i>Stachys ajugoides</i> var. <i>ajugoides</i> Hedge nettle	A2	Mixed evergreen forest, northern coastal scrub, closed-cone pine forest, coastal sage scrub, wetland riparian Elevation: 0-2,460 m. Blooms: February-April	Moderate potential for occurrence. Marginal freshwater wetland habitat exists within the City. The East Bay Chapter of the California Native Plant Society considers the Albany area as potential habitat for this species. Although location of potential habitat is vague, this species would most likely be found adjacent to the neglected portions of creeks within private property and within Albany Hill Park. ⁴⁹

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Ibid.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Stebbinsoseris decipiens</i> Santa Cruz microseris	1B	Occurs in broadleaf upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland; open disturbed areas with sandstone, shale or serpentine derived soils Elevation: 10-500 m. Blooms: April-May	No potential for occurrence. The habitat conditions of the City are unlike those required for this species. The closest CNDDDB occurrence (#26) is from a presumed extant population from Angel Island State Park, approximately 2.7 miles northwest of the City.
<i>Streptanthus albidus</i> subsp. <i>Peramoenus</i> Most beautiful jewelflower	1B	Chaparral, cismontane woodland, valley and foothill grassland, serpentine soils Elevation: 95-1,000 m. Blooms: March-October	No potential for occurrence. The habitat conditions of the City are unlike those required for this species. This species has an affinity to grow on serpentine soils in grasslands and within openings in chaparral and oak woodland. There is no serpentine in the City.
<i>Streptanthus glandulosus</i> subsp. <i>niger</i> Tiburon jewelflower	FE/CE/1B	Valley and foothill grassland on serpentine soils Elevation: 30-150 m. Blooms: May-June	No potential for occurrence. The habitat conditions of the City are unlike those required for this species. This species has an affinity to grow on serpentine soils in grasslands and within openings in chaparral and oak woodland. There is no serpentine in the City.
<i>Suaeda californica</i> California sea-blite	FE/1B/A1x	Narrow high tide zone along sandy salt marsh edges or estuarine beaches Elevation: 0-15 m. Blooms: July-October	Low potential for occurrence. Tidal zone of brackish marsh is present at the Albany Mudflats Ecological Reserve, and some sand dunes exist at Albany Beach (albeit highly disturbed and unnatural). The closest CNDDDB occurrence (#10, extirpated) is attributed to a 1912 observation from the Albany landmark known as Fleming Point. Several recent occurrences at restored tidal sites within the San Francisco Bay may provide for passive recruitment in the City.
<i>Symphotrichum lentum</i> Suisun Marsh aster	1B	Brackish and freshwater marshes and swamps, most often seen along sloughs Elevation: 0-3 m. Blooms: May-November	Moderate potential for occurrence. Brackish marsh and freshwater marsh are present at the Albany Mudflats Ecological Reserve.

Table IV.J-2: Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat/Blooming Period	Potential for Occurrence
<i>Trifolium hydrophyllum</i> [= <i>Trifolium depauperatum</i> var. <i>hydrophyllum</i>] Saline clover	1B	Marshes and swamps, valley and foothill grassland, Vernal pools Elevation: 0-300 m. Blooms: April-June	No potential for occurrence. Although habitat for this species may have been present prior to the development and fill of the Albany Plateau, the current habitat conditions within the City are unlike those required for this species. The closest CNDDDB occurrence (#30, possibly extirpated) is a 1900 record from a generalized location in present day Richmond (Stege Marsh), approximately 0.5 miles north of the City.

^a Status:

Federal/State

- FE = Federally Endangered
- FT = Federally Threatened
- CE = State-Listed as Endangered
- CR = State Rare
- CT = State-Listed as Threatened

Rare Plant Rank

- 1B = California Rare Plant Rank 1B: species considered rare or endangered in California and elsewhere.
- 2 = California Rare Plant Rank 2 – rare, threatened or endangered in California, but more common elsewhere.
- 3 = California Rare Plant Rank 3 – review list, plants for which we need more information.

Local

- A1x = Locally rare species previously known from Alameda or Contra Costa Counties, but now believed to be extirpated, and no longer occurring here.
- A2 = Locally rare species currently known from 3 to 5 regions in Alameda or Contra Costa Counties, or, if more, meeting other important criteria such as small populations, stressed or declining populations, small geographical range, limited or threatened habitat, etc.
- B = High priority watch list: a locally rare species currently known from 6 to 9 regions in Alameda or Contra Costa Counties, or, if more, meeting other important criteria as described above in A2.

Source: California Natural Diversity Database, California Department of Fish and Wildlife, 2015a.

Table IV.J-3: Special-Status Animal Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat	Potential for Occurrence
Invertebrates			
<i>Danaus plexippus</i> Monarch Butterfly –Winter colony sites	b	Winter colony sites occur along the California coast in wind protected tree groves (eucalyptus, Monterey pine, and cypress) where nectar and water resources are nearby.	Winter colony sites have been documented in eucalyptus trees on Albany Hill in 1991-92, 1997, and 1998, and in trees near the University Village near Village and Codornices creeks in January 1998.
Fish			
<i>Acipenser medirostris</i> Green sturgeon, Southern DPS	FT/CSC	Near shore marine waters, bays and estuaries, spawns in rivers in deep fast water over large cobbles, but also clean sand to bedrock. Southern most spawning population in the Sacramento River.	May occasionally visit Bay waters within the City.
<i>Eucyclogobius newberryi</i> Tidewater goby	FE/CSC	Fresh to brackish shallow lagoons and lower stream reaches with still, but not stagnant, water.	No suitable habitat present, not expected to occur. Considered extirpated from San Francisco Bay, ⁵⁰ but some small populations may persist. ⁵¹
<i>Oncorhynchus tshawytscha</i> Chinook salmon (Sacramento River winter-run ESU ⁵²)	FE/SE	Anadromous: spawns in Sacramento River system; occurs in small numbers in San Francisco Bay.	May occasionally visit Bay waters within the City.
<i>Oncorhynchus tshawytscha</i> Chinook salmon (Central Valley spring-run ESU)	FT	Anadromous: spawns in Sacramento River system; occurs in small numbers in central San Francisco Bay.	May occasionally visit Bay waters within the City.

⁵⁰ Moyle, P.B., 2002, op. cit.

⁵¹ Leidy, R.A., 2007, op. cit.

⁵² ESU = Evolutionarily Significant Unit. The National Marine Fisheries Service (NMFS) considers an ESU a “species” under the Endangered Species Act.

Table IV.J-3: Special-Status Animal Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat	Potential for Occurrence
<i>Oncorhynchus mykiss</i> Steelhead (central California coast ESU)	FT	Anadromous: spawns in small coastal streams and rivers. For spawning and egg development requires cool, well-oxygenated water with moderate flow/velocity, small to medium gravel bottom material, and moderately deep, cool pools for refuge. Rearing sites are in tributaries.	Species known to occur in Codornices Creek. Approximately 150 juveniles observed in Codornices Creek between the railroad tracks and San Pablo Avenue during surveys in 2001 by Rana Resources; ⁵³ few individuals observed in pools during LSA’s site visit in June 2003. Suitable spawning habitat present in sections where cobble stream beds occur.
Amphibians and Reptiles			
<i>Emys marmorata</i> Western pond turtle	CSC	Ponds, marshes, streams, and irrigation ditches with aquatic vegetation, deep water, basking sites, and adjacent uplands that are suitable for egg-laying (sandy banks or grassland).	Portions of Codornices, Middle, and Cerrito Creeks provide suitable breeding or resident habitat. Species observed in Codornices Creek, just upstream from the railroad tracks. ⁵⁴ Four CNDDDB occurrences have been recorded within 5 miles of the City: Brooks Island, San Pablo Reservoir, Jewell Lake, and Lake Temescal.
<i>Rana draytonii</i> California red-legged frog	FT/CSC	Perennial ponds or pools and streams where water remains long enough for breeding and development of young. Highest frog densities associated with dense emergent or shoreline riparian vegetation and deep (>2 feet), still or slow-moving water. Juvenile frogs often found in warm, shallow-water habitats with floating or submerged vegetation.	Not known to occur in or near the City. Creeks within the City do not provide high quality habitat due to their urban setting and the lack of adjacent upland habitat. Introduced predators, such as non-native fish and bullfrogs, further degrade the habitat. Closest CNDDDB recorded occurrences are more than 3 miles away near San Pablo Dam Reservoir in the vicinity of El Sobrante and Orinda.
Birds			
<i>Aythya americana</i> Redhead	CSC	Large, deep bodies of water; nests in freshwater emergent wetlands.	May winter in small numbers on open water habitats along the Albany waterfront, but does not breed within the City.
<i>Pelecanus erythrorhynchos</i> American white pelican	CSC	Forages over shallow inland waters and coastal marine habitats, nests on isolated islands or peninsulas.	May forage and roost in the City, but does not breed in San Francisco Bay or in the City.

⁵³ Environmental Collaborative, 2001, op. cit.

⁵⁴ Albany, City of, 1998. *City of Albany Watershed Management Plan*. Prepared in Consultation with David Mattern & Associates, Consulting Engineers; Wolfe Mason Associates, Landscape Architects; Balance Hydrologics, Inc.; and Botanical Consulting Services. October 1998.

Table IV.J-3: Special-Status Animal Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat	Potential for Occurrence
<i>Pelecanus occidentalis californicus</i> California brown pelican	FD/SD/CFP	Coastal areas; nests on islands.	May forage and roost in the shallow subtidal portions of the Albany waterfront, but does not breed in San Francisco Bay or in the City. Individuals may occasionally roost on Fleming Point Pier.
<i>Elanus leucurus</i> White-tailed kite	CFP	Open grasslands, meadows, or marshes; require dense-topped trees or shrubs for nesting and perching.	Marginal nesting and foraging habitat present at Albany Bulb, University Village, Albany Hill, and along the creeks within the Planting Area. Nesting has been documented on Brooks Island and in the vicinity of Berkeley Meadow approximately 1.6 miles south of the City. This species has been observed at University Village. ⁵⁵
<i>Haliaeetus leucocephalus</i> Bald eagle	FD/SE/CFP	Ocean shorelines, lake margins, and rivers for both nesting and wintering; nests in large trees with open branches.	May occasionally occur near the Albany waterfront during winter, but not expected to remain for long periods or breed within the City. Known to have nested near San Pablo Reservoir.
<i>Circus cyaneus</i> Northern harrier	CSC	Nests in wet meadows and marshes, forages over open grasslands and agricultural fields.	Marginal foraging habitat present at Albany Plateau, but limited in the City. Not expected to nest on or near the City due to ongoing disturbance associated with trail users and pets. Historically known to nest less than 1 mile south of the City in northwestern corner of Berkeley Meadow, but not in recent years.
<i>Aquila chrysaetos</i> Golden eagle	CFP	Rolling foothills and mountain areas. Nests in cliff-walled canyons or large trees in open areas.	May occasionally occur during winter, but not expected to remain for long periods or breed within the City.
<i>Falco peregrinus</i> American peregrine falcon	FD/SD/CFP	A variety of open habitats including coastlines, mountains, marshes, bay shorelines, and urban areas. Nest on cliffs, bridges, and tall buildings.	May occasionally forage over the City shoreline but not expected to nest due to lack of suitable nest sites on or adjacent to the City. Known to occasionally forage over Albany Mudflats Ecological Reserve. ⁵⁶
<i>Laterallus jamaicensis coturniculus</i> California black rail	ST/CFP	Salt marshes bordering larger bays, also found in brackish and freshwater marshes.	May occur in tidal marsh habitat along the Albany waterfront. Closest recent CNDDDB occurrence is approximately 3.5 miles south of the City at the Emeryville Crescent.
<i>Rallus longirostris</i>	FE/SE/CFP	Tidal salt marshes with sloughs and substantial	May occur in tidal marsh habitat along the Albany waterfront.

⁵⁵ Environmental Collaborative, 2001, op. cit.

⁵⁶ LSA Associates, Inc., 2002a, op. cit.

Table IV.J-3: Special-Status Animal Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat	Potential for Occurrence
<i>obsoletus</i> California clapper rail		cordgrass (<i>Spartina</i> sp.) cover.	Known to occur approximately 0.25 miles north in the Richmond Inner Harbor, 3.1 miles south in the Emeryville Crescent Marsh, and 4.7 miles north at Wildcat Creek Marsh.
<i>Charadrius alexandrinus nivosus</i> Western snowy plover (Pacific coast population)	FT	Sandy beaches, salt ponds, and salt pond levees.	Not known to breed within the City, but could forage on tidal mudflats. No suitable nesting habitat present.
<i>Sternula antillarum browni</i> California least tern	FE/SE/CFP	Sandy beaches, alkali flats, hard-pan surfaces (salt ponds).	Occasionally forages over Bay waters in the City between April and July. Observed nesting on created shell islands just south of Central Avenue in El Cerrito in 2000, ⁵⁷ just north of the City.
<i>Athene cunicularia</i> Burrowing owl	CSC	Open, dry grasslands that contain abundant ground squirrel burrows.	Wintering individuals may occasionally use concrete rip-rap along the shoreline of the Albany waterfront and natural and artificial burrows within the Albany Plateau. Has been observed wintering at scattered locations in the City and vicinity, including the Albany Bulb, Cesar Chavez Park, North Basin Strip of the Berkeley Marina, and Berkeley Meadow, ⁵⁸ but no nesting confirmed to date. The closest CNDDDB occurrence is approximately 1.2 miles northwest of the City in south Richmond. They have also been observed wintering along the Berkeley shoreline at the following locations: Cesar Chavez Park, Berkeley Meadows, and the Gilman ballfields. ⁵⁹
<i>Asio otus</i> Long-eared owl	CSC	Conifer, oak, riparian, pinyon-juniper, and desert woodlands adjacent to grasslands, meadows, or shrublands.	Not expected to occur due to lack of suitable habitat.
<i>Asio flammeus</i>	CSC	Open grasslands, meadows, and marshes with	May occasionally occur in tidal marsh habitats within and

⁵⁷ LSA observations as cited in LSA Associates, Inc., 2002a, op. cit.

⁵⁸ LSA observations and EBRPD observations 2009 and 2010 as cited in LSA Associates, Inc., 2002a. *Habitat Issues - Animal Life section in Eastshore Park Project Resource Inventory. Prepared for California Department of Parks and Recreation, East Bay Regional Park District.*

⁵⁹ LSA observations in 2008, 2009, and 2006 as cited in LSA Associates, Inc. 2002a. *Habitat Issues - Animal Life section in Eastshore Park Project Resource Inventory. Prepared for California Department of Parks and Recreation, East Bay Regional Park District*

Table IV.J-3: Special-Status Animal Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat	Potential for Occurrence
Short-eared owl		few trees; requires dense ground vegetation for both roosting and nesting.	adjacent to the Albany waterfront during winter. Closest CNDDDB occurrence is approximately 4.7 miles north of the City in Wildcat Creek Marsh.
<i>Lanius ludovicianus</i> Loggerhead shrike	CSC	Open grasslands and woodlands with scattered shrubs, fence posts, utility lines, or other perches; nests in dense shrubs and lower branches of trees.	May nest and forage within the ruderal scrub habitat along the Albany waterfront, particularly at the Albany Plateau.
<i>Geothlypis trichas sinuosa</i> San Francisco common yellowthroat	CSC	Salt, brackish, and freshwater marshes; and riparian woodlands; nests on or near ground in low vegetation.	Suitable nesting habitat present within tidal marsh, scrub, and riparian habitat habitats. Observed along the Albany shoreline near the Codornices Creek outfall in 2000 and 2001. ⁶⁰ Closest CNDDDB occurrence is near the Bay Bridge toll plaza in Emeryville.
<i>Passerculus sandwichensis alaudinus</i> Bryant's savannah sparrow	CSC	Nests and forages in salt marsh and adjacent ruderal habitat, and moist grasslands in the fog belt, but has also be found in dry grasslands back from the coast.	May nest and/or forage in salt marsh and ruderal vegetation along the Albany waterfront. Known to occur in the vicinity of the BSA. ⁶¹ Observed in Albany Plateau. ⁶²
<i>Melospiza melodia pusillula</i> Alameda song sparrow	CSC	Tidal salt marshes dominated by pickleweed; nests primarily in pickleweed and marsh gumplant.	Observed at Middle and Cerrito Creeks during LSA's reconnaissance survey. Closest CNDDDB records are in Cerrito Creek and along the waterfront in Richmond and Emeryville. Likely occurs at Codornices Creek and within marsh and riparian habitat along the Albany waterfront.
Mammals			
<i>Sorex vagrans halicoetes</i> Salt marsh wandering shrew	CSC	Tidal marshes with abundant driftwood and other debris (for shelter and foraging).	Unlikely to occur due to the limited extent of transitional and upland habitat adjacent to tidal and non-tidal salt marsh in the City.
<i>Reithrodontomys raviventris</i> Salt-marsh harvest mouse	FE/SE/CFP	Tidal salt marshes of San Francisco Bay and its tributaries. Requires tall, dense pickleweed for cover.	Not expected to occur due to lack of high quality tidal marsh habitat. Known to occur approximately 3 miles south of the City in the Emeryville Crescent and approximately 4.7 miles

⁶⁰ Ohlson, Kristin, 2001, as cited in LSA 2002a.

⁶¹ Shuford, W. D. 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 California Department of Fish and Game, Sacramento, California.

⁶² Ohlson, Kristin, 2001, op. cit.

Table IV.J-3: Special-Status Animal Species Potentially Occurring or Known to Occur in the Vicinity of Albany, Alameda County, California

Species	Status ^a	Habitat	Potential for Occurrence
			north of the City in Wildcat Creek Marsh.
<i>Antrozous pallidus</i> Pallid bat	CSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rockier areas for roosting. Needs roosts that protect bats from high temperature and disturbance.	Suitable roosting habitat present in large trees and snags on Albany Hill or along the creeks within the City. No recent (after 1970) CNDDDB occurrences within 5 miles of the City. Nearest occurrence was recorded at an unknown location in El Cerrito in 1943.
<i>Nyctinomops macrotis</i> Big free-tailed bat	CSC	Low-lying arid areas in Southern California. Needs high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	No habitat present within the City. Only one occurrence within 5 miles of the City is a 1916 record at an unknown location in Berkeley.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	SCT/CSC	Riparian woodlands, wetlands, forest edges, and open woodlands; roosts in caves, mines, and old buildings.	Suitable roosting habitat present in large trees and snags on Albany Hill or along the creeks within the City. Nearest CNDDDB occurrence is at Angel Island.

^a Status:

Federal/State

FE = Federally Endangered

FT = Federally Threatened

FD = Federally Delisted

SE = State Endangered

ST = State Threatened

SCT = State Candidate Threatened

SD = State Delisted

CSC = California Species of Special Concern

CFP = California Fully Protected Species

^b Winter colonies recognized by CDFW as a sensitive habitat in California. USFWS accepted a 90-day finding on a petition for listing the species as being warranted and USFWS are currently within the 12-month review period.

Source: California Natural Diversity Database, California Department of Fish and Wildlife 2015a, unless otherwise noted.

Monarch Butterfly Winter Colony Sites (Sensitive Habitat). Monarch butterflies are not listed as a species of special concern, threatened, or endangered by the United States Fish and Wildlife Services (USFWS) or the CDFW. The USFWS, however, accepted a 90-day finding on a petition stating that listing the species under the FESA may be warranted and are currently within the 12-month review period. Additionally, California law recognizes Monarch butterfly winter colonies as “special resources.” The CDFW is required to identify winter colony sites and establish management plans to protect them. Monarch butterflies winter in large colonies along the California coast. Winter roost sites are typically characterized by large, mature trees that are close together, providing a stable micro-climate and protection from wind. Monarch butterflies often use non-native tree species, including eucalyptus, as well as native species such as Monterey pine (*Pinus radiata*) and Monterey cypress (*Hesperocyparis macrocarpa*) (species native to the Monterey Peninsula but not elsewhere).

The eucalyptus, pine, and cypress groves within and adjacent to the City have the potential to support Monarch butterflies. U.C. Berkeley staff observed Monarchs roosting in eucalyptus trees along Codornices Creek in 1998.⁶³ In October 1997, City of Albany staff observed several hundred Monarch butterflies in the eucalyptus groves in Dowling Park (University Village), along the railroad tracks, and in pine and eucalyptus trees east of San Pablo Avenue and south of Marin Avenue east of the University Village. At that time, the University consulted with Paul Cherubini, a Monarch butterfly expert who determined that these aggregations of Monarchs represented temporary roosts, rather than over-wintering habitats. The nearest known regular wintering colony is at the Point Pinole Regional Shoreline. Large groups of Monarch butterflies have also been observed in the fall and winter in eucalyptus groves near Albany Hill.

Steelhead – Central California Coast ESU (Federal Threatened). The steelhead is the anadromous form of rainbow trout, migrating from the ocean to freshwater streams to spawn. Juveniles spend one to three years in their natal streams before going to sea as smolts. Most steelhead return to freshwater streams after spending two to three years at sea. Important factors associated with preferred stream channel conditions include temperature, velocity, depth, gravel substrate, and water quality. Shaded banks with overhanging riparian vegetation (termed “shaded riverine aquatic cover” by the USFWS) are also beneficial to salmonids, providing foraging habitat and cover from predators. High water temperatures, low rates of stream flow, low levels of dissolved oxygen, low sediment input, and stream obstructions can be detrimental to steelhead populations.

Approximately 150 juvenile steelhead were observed in Codornices Creek between the railroad tracks and San Pablo Avenue during surveys in 2001 conducted by Rana Resources.⁶⁴ Steelhead were also observed in Codornices Creek within the planning area during LSA’s June 2003 site visit. Steelhead appear to be surviving in Codornices Creek despite the surrounding urban development, non-point source pollution, and the potential for removal or killing by people and domestic animal predators. Their continued presence in Codornices Creek is probably due to many factors, notably the lack of barriers between San Francisco Bay and upstream areas, the presence of a few deep pools in which to seek cover and take refuge when the stream is relatively dry, a cobbled stream bed in sections that can be used for spawning, and the abundant overstory in many sections that keep the stream shaded and

⁶³ Ibid.

⁶⁴ Environmental Collaborative, 2001, op. cit.

cool. Although Codornices Creek provides suitable habitat for steelhead, NOAA Fisheries does not consider it to be critical habitat. It is considered “occupied, but excluded as critical habitat.”⁶⁵ Steelhead are not known to occur within the other creeks in the City.⁶⁶

California Red-Legged Frog (Federal Threatened). The California red-legged frog has been extirpated or nearly extirpated from 70 percent of its former range.⁶⁷ Population declines of this species have been attributed to a variety of factors, with habitat loss and predation by non-native aquatic predators (e.g., bullfrogs, crayfish, other non-native fishes) typically implicated as the primary threats. California red-legged frogs occur in and along freshwater marshes, streams, ponds, and other semi-permanent water sources. Optimal habitat contains dense emergent or shoreline riparian vegetation closely associated with deep (i.e., greater than 2.3 feet), still, or slow-moving water.⁶⁸ Cattails, bulrushes, and arroyo willows provide the habitat structure that seems to be most suitable for California red-legged frogs.⁶⁹ Although the species can occur in intermittent streams and ponds, they are unlikely to persist in streams in which all surface water disappears.⁷⁰ Suitable breeding ponds and pools usually have a minimum depth of 20 inches, but California red-legged frogs do sometimes breed successfully in pools as shallow as 10 inches.⁷¹ Regardless of water depth, suitable breeding habitat must contain water during the entire development period for eggs and tadpoles.

California red-legged frogs are not known to occur in any of the creeks within the City; the closest CNDDB occurrences are more 3 miles northeast near San Pablo Dam Reservoir in the vicinity of El Sobrante.⁷² No individuals were observed along Codornices or Village Creeks during LSA’s site visits in June and August 2003 and August 2008. The habitat along these sections of Codornices Creek and Village Creek is not suitable for California red-legged frogs for several reasons: few deep pools in which frogs could breed are present; no refuge from high flow storm events is present; Codornices Creek has a highly variable water regime; most of the stream corridor is intensively developed; and the surrounding urban area supports an abundance of domestic and wild predators that

⁶⁵ National Oceanic and Atmospheric Administration, 2005. *Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California; Final Rule*. Federal Register: 70:52488-52627.

⁶⁶ California Department of Fish and Wildlife, 2015b, op. cit.

⁶⁷ U.S. Fish and Wildlife Service, 2002. *Recovery Plan for the California Red-legged Frog (Rana aurora draytonii)*. Portland, Oregon. May 28, 2002.

⁶⁸ Hayes, M. P. and M. R. Jennings, 1988. Habitat Correlates of Distribution of the California Red-Legged Frog (*Rana Aurora Draytonii*) and the Foothill Yellow-Legged Frog (*Rana Boylii*): Implications for Management, pp. 144-158. In: R. C. Szaro, K. E. Severson, and D. R. Patton (Technical Coordinators) *Proceedings of the Symposium on the Management of Amphibians, Reptiles, and Small Mammals in North America*. U.S. Department of Agriculture, Forest Service, General Technical Report RM-166.

⁶⁹ Jennings, M. R., 1988. Natural History and Decline of Native Ranids in California, pp. 61-72. In: H. F. DeLisle, P. R. Brown, B. Kaufman, and B. M. McGurty (editors) *Proceedings of the Conference on California Herpetology*.

⁷⁰ Jennings, M.R. and M.P. Hayes, 1994. *Amphibian and Reptile Species of Special Concern in California*. Final Report to the California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, CA. 255 pp.

⁷¹ Fellers, G. M., 2005. California red-legged frog. M. Lannoo, editor. *Amphibian Declines: The Conservation Status of United States Species*. University of California Press, Berkeley, CA.

⁷² California Department of Fish and Wildlife, 2015b, op. cit.

probably have a significant impact on amphibian populations.⁷³ For these same reasons, Cerrito, Middle, and the other sections of Village and Codornices Creeks also likely do not provide suitable habitat for this species.

Western Pond Turtle (California Species of Special Concern). Western pond turtles occur in a wide variety of aquatic habitats, including ponds, lakes, marshes, rivers, streams, and irrigation ditches that typically have a rocky or muddy bottom and contain stands of aquatic vegetation.⁷⁴ The presence or absence of pond turtles at a given aquatic site is largely dependent on the availability of suitable basking sites and adjacent upland habitat for egg-laying (e.g., sandy banks or grassy open fields) and over-wintering. Nests are typically dug in dry substrate with a high clay or silt fraction since the female moistens the site where she will excavate the nest prior to egg-laying.⁷⁵ Hatchlings require shallow water habitat with relatively dense submergent or short emergent vegetation in which to forage.⁷⁶

Suitable habitat for western pond turtles exists within portions of Cerrito, Middle, and Codornices Creeks within the City. This species was observed by Michael Woods Botanical Consulting in the late 1990s in Codornices Creek, just upstream from the railroad tracks.⁷⁷ No turtles were observed during LSA's reconnaissance surveys of Cerrito, Middle, Codornices or Village Creeks in February 2014 or during LSA's field survey of Codornices and Village Creeks on June 2003 or August 2008,⁷⁸ or during extensive surveys of Codornices and Village Creeks conducted in 2001 by Rana Resources.⁷⁹ Village Creek does not provide suitable habitat for western pond turtles due to the lack of perennial deep pools or basking sites and because most of the creek channel is narrow or densely vegetated. The lack of large pools and/or suitable nesting habitat along Codornices Cerrito, Middle and Village Creeks within the City makes it unlikely that this species would permanently occupy these creeks; however, suitable habitat along Codornices Creek exists within the City both upstream and downstream of the reach within University Village.⁸⁰ The closest CNDDDB occurrences are at Brooks Island, Tilden Regional Park in Berkeley, San Pablo Reservoir, and Lake Temescal.⁸¹

⁷³ Environmental Collaborative, 2001, op. cit.

⁷⁴ Stebbins, R. C., 2003. *A Field Guide to Western Amphibians and Reptiles*. Third edition. Houghton Mifflin Company, Boston, MA.

⁷⁵ Holland, D. C., 1991. *Status and Reproductive Dynamics of a Population of Western Pond Turtles (Clemmys marmorata) in Klickitat County, Washington, in 1991*. Unpublished report prepared for the Washington Department of Wildlife, Olympia. Cited in Jennings and Hayes 1994, op. cit.

⁷⁶ Ibid.

⁷⁷ City of Albany. 1998. City of Albany Watershed Management Plan. Prepared in Consultation with David Mattern & Associates, Consulting Engineers; Wolfe Mason Associates, Landscape Architects; Balance Hydrologics, Inc.; and Botanical Consulting Services. October 1998.

⁷⁸ LSA Associates, Inc., 2009, op. cit.

⁷⁹ Environmental Collaborative, 2001, op. cit.

⁸⁰ Ibid.

⁸¹ California Department of Fish and Wildlife, 2015a, op. cit.

White-Tailed Kite (California Fully Protected Species). Most white-tailed kites in California occur west of the Sierra Nevada in lowlands and foothills, where they are often seen year-round.⁸² This species nests in densely foliated trees and large shrubs located near suitable foraging habitat (e.g., grasslands, marshes, agricultural fields). Preferred prey items include California voles and mice.

White-tailed kite may nest and/or forage in the tree groves and riparian woodland in and adjacent to the City, particularly at the Albany Bulb, Neck, and Plateau. White-tailed kites have been observed in the ruderal/non-native grassland habitats in the City, including University Village⁸³ and at the Albany waterfront.⁸⁴ The closest nesting occurrences are at Brooks Island, the Berkeley Marina, and Wildcat Creek Marsh.⁸⁵ Suitable nesting and foraging habitat for these raptors occurs within the City.

Northern Harrier (California Species of Special Concern). Northern harriers are widespread in California, although they have become uncommon in the southern part of the State.⁸⁶ Their preferred habitats are freshwater wetlands and salt marshes, although they are also commonly found over grasslands and agricultural fields.⁸⁷ Harriers breed from mid-March to September, building their nests on the ground.

Suitable foraging and nesting habitat for northern harriers is present in the grassland, tidal marsh, ruderal or agricultural habitats in the City. Northern harriers nested approximately 0.75 miles south near the Berkeley Meadow in 2001 and 2002 and approximately 4.7 miles north at Wildcat Creek Marsh.⁸⁸

California Black Rail (State Threatened; California Fully Protected Species). Around the San Francisco Bay Estuary, California black rails primarily inhabit tidal salt marsh dominated by pickleweed, but also occupy brackish marshes dominated by bulrush. California black rails prefer tidal marshes but apparently will use high marshlands during “wet” years.⁸⁹ Black rails build nests in tall grasses or marsh vegetation during the spring, with most nests constructed of pickleweed and placed on or slightly above the ground.

California black rails could occur in tidal marsh habitat along the Albany waterfront. Black rails have been reported south of the City at the Emeryville Crescent marsh.⁹⁰

⁸² Peeters, H., and P. Peeters, 2005. *Raptors of California*. University of California Press, Berkeley.

⁸³ Environmental Collaborative, 2001, op. cit.

⁸⁴ Ohlson, Kristin, 2001, op. cit.

⁸⁵ California Department of Fish and Wildlife, 2015a, op. cit.

⁸⁶ Peeters, H., and P. Peeters, 2005, op. cit.

⁸⁷ Ibid.

⁸⁸ California Department of Fish and Wildlife, 2015a, op. cit.

⁸⁹ Trulio, L. A., and J. G. Evens, 2000. California Black Rail. Pages 341–345 in *Goals Project. Baylands Ecosystem Species and Community Profiles: Life histories and environmental requirements of key plants, fish, and wildlife*. Prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. P. R. Olofson, editor. San Francisco Bay Regional Water Quality Control Board, Oakland, California.

⁹⁰ California Department of Fish and Wildlife, 2015a, op. cit.

California Clapper Rail (Federal and State Endangered; California Fully Protected Species). This secretive species prefers tidal salt marshes dominated by pickleweed and cordgrass with adjacent areas of high marsh cover dominated by pickleweed, gumplant, saltgrass, alkali heath, and/or fleshy jaumea (*Jaumea carnosa*).⁹¹ Clapper rails also occupy tidal brackish marshes dominated by bulrush. The California subspecies of clapper rail is now restricted to the tidal marshlands around the San Francisco, San Pablo, and Suisun Bays. A Bay-wide survey in the early 1970s estimated a total population of between 4,000 and 6,000 birds.⁹² The most recent population estimate for California clapper rails was approximately 1,040 to 1,264 individuals in San Francisco Bay.⁹³ Although habitat loss is implicated in population declines, predation of rails by the introduced red fox is another major threat.

California clapper rails could occur in tidal marsh habitat along the Albany waterfront. Clapper rails have been reported at the Emeryville Crescent marsh, Inner Richmond Harbor, and Wildcat Creek Marsh.⁹⁴

California Least Tern (Federal and State Endangered; California Fully Protected Species). During the breeding season, California least terns are found along the west coast of North America from central California south to northwestern Mexico. This subspecies winters in coastal marine areas off Mexico and Central America. Least terns nest in colonies on barren or sparsely vegetated areas, including sand flats, low dunes, beaches, levees, river bars, sandy islands, and shell islands.⁹⁵ They forage for fish over shallow to deep waters.

In Spring and Summer 2000, 12 pairs of California least terns were observed nesting immediately north of the City, on the westernmost shell-covered island located just south of Central Avenue, and at least one young tern fledged. In addition to using the island for nesting, individuals foraged in the nearby shallow subtidal habitat and intertidal mudflat (at high tide) within the Albany Mudflats Ecological Reserve. In Spring 2001, several least terns were observed at the same island, and some were engaged in courtship displays, but they did not nest there in 2001.⁹⁶ In San Francisco Bay, the largest nesting colony of least terns is at the former Alameda Naval Air Station.

⁹¹ Albertson, J. D., and J. G. Evens, 2000. California Clapper Rail. Pages 332–340 in *Goals Project. Baylands Ecosystem Species and Community Profiles: Life histories and environmental requirements of key plants, fish, and wildlife*. Prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. P. R. Olofson, editor. San Francisco Bay Regional Water Quality Control Board, Oakland, California.

⁹² Gill, Jr., R., 1979. *Status and Distribution of the California Clapper Rail (Rallus longirostris obsoletus)*. California Fish and Game 65:36–49.

⁹³ Albertson, J. D., and J. G. Evens, 2000, op. cit.

⁹⁴ California Department of Fish and Wildlife, 2015a, op. cit.

⁹⁵ Thompson, B., et al., 1997. Least tern (*Sterna antillarum*). A. Poole and F. Gill, editors. *The Birds of North America, No. 210*. The Academy of Natural Sciences, Philadelphia, and American Ornithologists' Union, Washington, D.C.

⁹⁶ LSA Associates, Inc., 2002a, op. cit.

Burrowing Owl (California Species of Special Concern). Burrowing owls have undergone substantial population declines throughout central and coastal California, primarily due to habitat loss.⁹⁷ This species occurs in open, well-drained grasslands with abundant small mammal burrows, particularly those of California ground squirrels. Burrowing owls also prefer areas with short vegetation so they can easily scan their surroundings and spot potential predators.⁹⁸ In human-modified areas burrowing owls often use burrows under the edges of concrete, asphalt, rubble piles, and riprap.⁹⁹

Although no nesting records of burrowing owls exist in the City, this species has been observed wintering at the Albany Bulb around piles of concrete.¹⁰⁰ They have also been observed wintering to the south at Cesar Chavez Park in Berkeley, the North Basin Strip in Berkeley Marina, the south shoreline of the North Basin (in riprap) in the Berkeley Marina, and south of University Avenue (west of the Strawberry Creek outfall).¹⁰¹ Artificial burrows suitable for use by burrowing owls have been constructed within an established 8-acre fenced off area of the Albany Plateau, but as of 2012, the burrows have yet to be occupied.¹⁰² The concrete debris along the Albany Neck and riprap along the Albany waterfront also provide suitable crevices and cover that could be used by the occasional migrating or wintering burrowing owl.

Loggerhead Shrike (California Species of Special Concern). Loggerhead shrikes occur in open habitats with scattered shrubs, trees, posts, fences, utility lines, and other perches. Shrikes primarily nest in the lower branches of dense shrubs and tall trees, although they have also been observed nesting in buildings and debris piles. They feed primarily on large insects, small birds, and mammals.

The open grasslands and scattered trees and shrubs that characterize the Albany Plateau provide suitable habitat for loggerhead shrikes. Shrikes may also occasionally forage over tidal marshes if suitable perches are nearby.

San Francisco Common Yellowthroat (California Species of Special Concern). The common yellowthroat is a widely distributed warbler in North America, occurring in wetlands, moist thickets, and grasslands. The San Francisco subspecies is restricted to riparian habitat, brackish marsh, freshwater marsh, tidal salt marsh, and adjacent grassland and ruderal vegetation along the

⁹⁷ DeSante, D. F., et al., 2007. A Census of Burrowing Owls in Central California in 1991. Pages 38–48, J. L. Lincer and K. Steenhof, editors. *The Burrowing Owl, Its Biology and Management: Including the Proceedings of the First International Symposium. Raptor Research Report No. 9.*

⁹⁸ Zarn, M., 1974. Burrowing owl (*Spetyto cucicularia hypugaea*). *Habitat Management Series for Unique or Endangered Species. Technical Report T-N-250.* Bureau of Land Management, Denver, Colorado.

⁹⁹ Barclay, J., 2001. *Burrowing Owl Species Summary.* Appendix IV in Colonel Allensworth State Historic Park Final Burrowing Owl Mitigation and Management Plan. Albion Environmental, Inc., Santa Cruz, California. March.

¹⁰⁰ LSA Associates, Inc., 2002a, op. cit.

¹⁰¹ Ibid.

¹⁰² Albany Patch, 2012. *Burrowing Owls Eschew Albany Habitat at Waterfront.* Website: albany.patch.com/groups/politics-and-elections/p/burrowing-owls-eschew-albany-habitat-at-waterfront. June 6.

margins of San Francisco Bay. Despite the common name, most salt marsh common yellowthroats breed in brackish or freshwater marshes.

Suitable nesting habitat is present within tidal marsh and riparian habitats within the City. This species has been observed along the Albany shoreline near the Codornices Creek outfall.¹⁰³

Bryant's Savannah Sparrow (California Species of Special Concern). Bryant's savannah sparrow is a California endemic restricted to a narrow coastal strip between Humboldt Bay south to the Morro Bay area, with its primary center of abundance appearing to be the San Francisco Bay area.¹⁰⁴ This subspecies occupies low, tidally influenced habitats, adjacent ruderal areas, moist grasslands within and just above the fog belt, and infrequently drier grasslands. Around San Francisco Bay, Bryant's savannah sparrows primarily occur in the transition zone between tidal marsh and upland; such habitats are typically dominated by pickleweed or saltgrass.¹⁰⁵

This species could occur in the salt marsh and adjacent ruderal habitat along the Albany waterfront.

Alameda Song Sparrow (California Species of Special Concern). This subspecies of the widely distributed song sparrow is restricted to the tidal marshes and adjacent uplands around the San Francisco Bay. They occur primarily in tidal salt marshes, but may also nest or forage in other shoreline habitats such as seasonal wetlands, intertidal mudflats, and adjacent uplands.¹⁰⁶ Favored nesting substrates include gumplant and cordgrass adjacent to tidal sloughs, although they also occur in peppergrass in the drier, upper portions of salt marshes and in brackish marshes dominated by bulrush.¹⁰⁷

During LSA's reconnaissance survey, Alameda song sparrows were observed at Middle and Cerrito Creeks. This species has also been observed near the mouth of Codornices Creek.¹⁰⁸ This subspecies is expected to occur within and adjacent to any tidal or brackish marsh habitats and along the lower portions of the creek channels within the City.

¹⁰³ Ohlson, Kristin, 2001, op. cit.

¹⁰⁴ Fitton, S. D., 2008. Bryant's Savannah Sparrow (*Passerculus sandwichensis alaudinus*). Pages 382–387; Shuford, W. D., and T. Gardali, editors. *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 California Department of Fish and Game, Sacramento.

¹⁰⁵ Ibid.

¹⁰⁶ Cogswell, H., 2000. Song Sparrow. Pages 374–385 in *Goals Project. Baylands Ecosystem Species and Community Profiles: Life Histories and Environmental Requirements of Key Plants, Fish, and Wildlife*. Prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. P. R. Olofson, editor. San Francisco Bay Regional Water Quality Control Board, Oakland, California.

¹⁰⁷ Marshall, J. T., and K. G. Dedrick, 1994. Endemic Song Sparrows and yellowthroats of San Francisco Bay. Pages 316–317; J. R. Jehl, Jr., and N. K. Johnson, editors. *A Century of Avifaunal Change in North America. Studies in Avian Biology 15*.

¹⁰⁸ Ohlson, Kristin, 2001, op. cit.

Salt Marsh Harvest Mouse (Federal and State Endangered; California Fully Protected Species). The salt marsh harvest mouse is endemic to the tidal salt marshes of the San Francisco Bay Estuary. This species primarily occurs in marshes dominated by pickleweed, but also uses adjacent upland habitats during high tides. The presence of adequate peripheral halophyte plant cover adjacent to the pickleweed-dominated marsh plain is an important habitat component for this species, which depends on such cover for refuge from terrestrial predators during extremely high tides. Marshes without such cover or that are too narrow to allow adequate growth of such cover usually lack salt marsh harvest mice.

Salt marsh harvest mice are not likely to occur within the City due to lack of high quality tidal marsh habitat. Pickleweed is present only as small patches along the Albany waterfront. The closest CNDDDB occurrences are approximately 3 miles to the south in the Emeryville Crescent and approximately 4.7 miles north in Wildcat Creek Marsh.

Pallid Bat (California Species of Special Concern). Pallid bats are found in grasslands, shrublands, woodlands, and forest from sea level through mixed conifer forests. They prefer rocky outcrops, cliffs, crevices and buildings as roosting sites, with access to open habitats for foraging. Roosts must protect them from high temperatures.

This bat species and other bat species could roost in the large trees and snags on Albany Hill or along the creeks within the City. CNDDDB occurrences for pallid bats within 5 miles of the City were recorded prior to 1970 from the El Cerrito, Berkeley, and Orinda areas.

Townsend's Big-Eared Bat (State Candidate Threatened; California Species of Special Concern). The Townsend's big-eared bat occurs in riparian woodlands, wetlands, forest edges, and open woodlands and roosts in open sites, caves, mines and old buildings.

The Townsend's big-eared bat and other bat species could roost in the large trees and snags on Albany Hill or along the creeks within the City. The closest CNDDDB occurrence for Townsend's big-eared bat was recorded in 2008 at Angel Island.

(3) **Sensitive Habitats.** Special plant communities and jurisdictional waters are described below.

Special Plant Communities. The CDFW tracks the occurrences of "special" plant communities that are listed in the CDFW publication *List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database*.¹⁰⁹ These communities are sometimes addressed by lead or trustee agencies in CEQA documents, but generally are not afforded the same protection as CRPR List 1B and 2 plant species. Many special plant communities support special-status plants and animals and are addressed under CEQA as habitat for those species. The following special plant communities occur within a 5-mile radius of the City: northern coastal salt marsh, northern maritime chaparral, serpentine bunchgrass, and valley needlegrass grassland. Northern coastal salt marsh is the only special plant community within the City. Although remnants of northern maritime chaparral and valley needlegrass grassland may occur in the City, these patches

¹⁰⁹ California Department of Fish and Wildlife, 2015a, op. cit.

are too disturbed and fragmented to be recognized as special plant communities. Serpentine bunchgrass habitat is present in Alameda County, but it is not present in the City. Northern coastal salt marsh is dominated by native halophytes and usually supports an abundance of native forbs and potentially supports special-status plants. This community occurs in the northern portion of the City at the Albany Mudflats Ecological Reserve (Figure IV.J-1).

Jurisdictional Waters. Although a formal jurisdictional delineation of wetlands and other waters of the U.S. and State was not conducted for this study, several features can be assumed to fall under U.S. Army Corps of Engineers (Corps) and Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Sections 401 and 404 of the federal Clean Water Act and the Porter-Cologne Water Quality Control Act.

Features within the City that would likely be considered other waters of the U.S. by the Army Corps of Engineers (Corps) include the open waters and tidal areas of San Francisco Bay and Cerrito, Codornices, Middle, and Village Creeks. Known jurisdictional wetlands within the City include all tidal, brackish, and freshwater marshes along the Albany waterfront in the City, including the Albany Mudflats Ecological Reserve. Two potentially jurisdictional seasonal wetlands and an unvegetated drainage located near the Albany Beach, west of the parking area behind Golden Gate Fields, were delineated in 2010 as part of the Albany Beach Restoration and Public Access Feasibility Study.¹¹⁰ Additional other waters and wetlands may be present in other undeveloped portions of the City, but would require site-specific evaluations to fully identify.

All creeks within the City are also expected to fall under CDFW jurisdiction pursuant to Section 1602 of the California Fish and Game Code. Unlike Corps jurisdiction, however, which is limited to the Ordinary High Water Mark, CDFW jurisdiction over these features extends to the top of bank, or the outer dripline of riparian vegetation, whichever is greater.

e. Regulatory Context. Biological resources within the City may be subject to agency jurisdiction or regulations, as described below.

(1) Federal Endangered Species Act. The USFWS has jurisdiction over federally listed threatened and endangered plant and animal species. The Federal Endangered Species Act (FESA) and its implementing regulations prohibit the take of any fish or wildlife species that is federally listed as threatened or endangered without prior approval pursuant to either Section 7 or Section 10 of the FESA. FESA defines “take” as “*harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.*” Federal Regulation 50 CFR 17.3 defines the term “harass” as an intentional or negligent act that creates the likelihood of injuring wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns such as breeding, feeding, or sheltering (50 CFR §17.3). Furthermore, Federal Regulation 50 CFR 17.3 defines “harm” as an act that either kills or injures a listed species. By definition, “harm” includes habitat modification or degradation that actually kills or injures a listed species by significantly impairing essential behavior patterns such as breeding, spawning, rearing, migrating, feeding, or sheltering (50 CFR 217.12).

¹¹⁰ LSA Associates, Inc., 2011. *Albany Beach Restoration and Public Access Feasibility Study*. January.

Section 10(a) of the FESA establishes a process for obtaining an incidental take permit that authorizes non-federal entities to incidentally take federally listed wildlife or fish. Incidental take is defined by the FESA as take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” Preparation of a Habitat Conservation Plan (HCP) is required for all Section 10(a) permit applications. The USFWS and National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service) have joint authority under the ESA for administering the incidental take program. NOAA Fisheries Service has jurisdiction over anadromous fish species and USFWS has jurisdiction over all other fish and wildlife species.

Section 7 of the FESA requires all federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any species listed under the FESA, or result in the destruction or adverse modification of its habitat. Federal agencies are also required to minimize impacts to all listed species resulting from their actions, including issuance or permits or funding. Section 7 requires consideration of the indirect effects of a project, effects on federally listed plants, and effects on critical habitat (FESA requires that the USFWS identify critical habitat to the maximum extent that it is prudent and determinable when a species is listed as threatened or endangered). This consultation results in a Biological Opinion prepared by the USFWS stating whether implementation of the HCP will result in jeopardy to any HCP Covered Species or will adversely modify critical habitat and the measures necessary to avoid or minimize effects to listed species.

Although federally listed animals are legally protected from harm no matter where they occur, Section 9 of the FESA provides protection for endangered plants by prohibiting the malicious destruction on federal land and other “take” that violates State law. Protection for State-listed plants not living on federal lands is provided by the California Endangered Species Act.

(2) Clean Water Act. The Corps is responsible under Section 404 of the Clean Water Act to regulate the discharge of fill material into waters of the U.S. Waters of the U.S. and their lateral limit are defined in 33 CFR Part 328.3(a) and include streams that are tributaries to navigable waters and their adjacent wetlands. The lateral limits of jurisdiction for a non-tidal stream are measured at the line of the Ordinary High Water Mark (33 CFR Part 328.3[e]) or the limit of adjacent wetlands (33 CFR Part 328.3[b]). Any permanent extension of the limits of an existing water of the U.S., whether natural or man-made, results in a similar extension of Corps jurisdiction (33 CFR Part 328.5).

Waters of the U.S. fall into two broad categories: wetlands and other waters. Other waters include waterbodies and watercourses generally lacking plant cover such as rivers, streams, lakes, springs, ponds, coastal waters, and estuaries. Wetlands are aquatic habitats that support hydrophytic wetland plants and include marshes, wet meadows, seeps, floodplains, basins, and other areas experiencing extended seasonal soil saturation. Seasonally or intermittently inundated features, such as seasonal ponds, ephemeral streams, and tidal marshes, are categorized as wetlands if they have hydric soils and support wetland plant communities. Seasonally inundated waterbodies or watercourses that do not exhibit wetland characteristics are classified as other waters of the U.S.

Waters and wetlands that are not adjacent to or cannot trace a continuous hydrologic connection to a navigable water of the U.S. are not tributary to waters of the U.S. These are termed “isolated wetlands.” Isolated wetlands are jurisdictional when their destruction or degradation can affect interstate or foreign commerce (33 CFR Part 328.3[a]).

In general, a project proponent must obtain a Section 404 permit from the Corps before placing fill or grading in wetlands or other waters of the U.S. Prior to issuing the permit, the Corps is required to consult with the USFWS under Section 7 of the FESA if the project may affect federally listed species.

All Corps permits require water quality certification under Section 401 of the Clean Water Act. In the San Francisco Bay Area, this regulatory program is administered by the San Francisco Bay Regional Water Quality Control Board (RWQCB). Project proponents who propose to fill wetlands or other waters of the U.S. must apply for water quality certification from the RWQCB. The RWQCB has adopted a policy requiring mitigation for any loss of wetland, streambed, or other jurisdictional area.

(3) Migratory Bird Treaty Act. The federal Migratory Bird Treaty Act (MBTA) prohibits the taking, hunting, killing, selling, purchasing, etc. of migratory birds, parts of migratory birds, or their eggs and nests. As used in the MBTA, the term “take” is defined as “to pursue, hunt, shoot, capture, collect, kill, or attempt to pursue, hunt, shoot, capture, collect, or kill, unless the context otherwise requires.” Most bird species native to North America are covered by this act.

(4) California Endangered Species Act. The CDFW has jurisdiction over State-listed endangered, threatened, and rare plant and animal species under the California Endangered Species Act (CESA). CESA is similar to FESA both in process and substance; it is intended to provide additional protection to threatened and endangered species in California. Species may be listed as threatened or endangered under both acts (in which case the provisions of both State and federal laws apply) or under only one act. A candidate species is one that the Fish and Game Commission has formally noticed as being under review by CDFW for addition to the State list. Candidate species are protected by the provisions of CESA.

(5) California Environmental Quality Act. CEQA applies to “projects” proposed to be undertaken or requiring approval by State and local government agencies. Projects are defined as having the potential to have physical impact on the environment. Under Section 15380 of CEQA, a species not included on any formal list “shall nevertheless be considered rare or endangered if the species can be shown by a local agency to meet the criteria” for listing. With sufficient documentation, a species could be shown to meet the definition of rare or endangered under CEQA and be considered a “de facto” rare or endangered species.

(6) California Fish and Game Code. The CDFW is also responsible for enforcing the California Fish and Game Code, which contains several provisions potentially relevant to construction projects. For example, Section 1602 of the Fish and Game Code governs the issuance of Lake and Streambed Alteration Agreements by the CDFW. Lake or Streambed Alteration Agreements are required whenever project activities substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated as such by the CDFW.

The California Fish and Game Code also lists animal species designated as Fully Protected or Protected, which may not be taken or possessed at any time. The CDFW does not issue licenses or permits for take of these species except for necessary scientific research, habitat restoration/species recovery actions, or live capture and relocation pursuant to a permit for the protection of livestock. Fully Protected species are listed in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and

amphibians), and 5515 (fish) of the California Fish and Game Code, while Protected amphibians and reptiles are listed in Chapter 5, Sections 41 and 42.

Section 3503 of the California Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 specifically prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks and eagles) or Strigiformes (owls) and their nests. These provisions, along with the federal MBTA, essentially serve to protect nesting native birds. Non-native species, including European starling, house sparrow, and rock pigeon, are not afforded any protection under the MBTA or California Fish and Game Code.

(7) Porter-Cologne Water Quality Control Act. Under this Act (California Water Code Sections 13000–14920), the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the State’s waters. The RWQCB asserts jurisdiction over isolated waters and wetlands, as well as waters and wetlands that are regulated by the Corps. Therefore, even if a project does not require a federal permit, it still requires review and approval by the RWQCB. When reviewing applications, the RWQCB focuses on ensuring that projects do not adversely affect the “beneficial uses” associated with waters of the State. In most cases, the RWQCB seeks to protect these beneficial uses by requiring the integration of waste discharge requirements (WDRs) into projects that will require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction Best Management Practices (BMPs).

(8) McAteer-Petris Act. The McAteer-Petris Act and Suisun Marsh Preservation Act were adopted to protect San Francisco Bay and Suisun Marsh as great natural resources for the benefit of the public and to encourage development compatible with this protection. The San Francisco Bay Conservation and Development Commission (BCDC) was established to carry out this Act. The two primary goals of the BCDC are: (1) to prevent the unnecessary filling of San Francisco Bay; and (2) to increase public access to and along the Bay shoreline. BCDC approval is required for all projects within 100 feet of the Bay shoreline, as well as projects that propose any filling or dredging within Bay waters.

(9) Other Statutes, Codes, and Policies Affording Species Protection. The CDFW maintains an administrative list of California Species of Special Concern (CSC), defined as a “species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- Is extirpated from the State, or, in the case of birds, in its primary seasonal or breeding role;
- Is listed as federally, but not State-, threatened or endangered;
- Meets the State definition of threatened or endangered but has not formally been listed;
- Is experiencing, or formerly experienced, serious (nonscyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- Has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.”

The CDFW's Nongame Wildlife Program is responsible for producing and updating CSC publications for mammals,¹¹¹ birds,¹¹² and reptiles and amphibians.¹¹³ The Fisheries Branch is responsible for updates to the Fish CSC document and list.¹¹⁴ Section 15380 of the CEQA Guidelines clearly indicates that CSC should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outline therein. In contrast to species listed under the FESA or CESA, however, CSC have no formal legal status.

California Rare Plant Ranks. Special-status plants in California are assigned to one of five "California Rare Plant Ranks" (CRPR) by a collaborative group of over 300 botanists in government, academia, non-governmental organizations, and the private sector. This effort is jointly managed by the CDFW and the non-profit CNPS. The five CRPRs currently recognized by the CNDDDB include the following:

- CRPR 1A – presumed extinct in California
- CRPR 1B – rare, threatened, or endangered in California and elsewhere
- CRPR 2 – rare, threatened, or endangered in California but more common elsewhere
- CRPR 3 – a review list of plants about which more information is needed
- CRPR 4 – a watch list of plants of limited distribution

Substantial impacts to plants ranked 1A, 1B, and 2 are typically considered significant based on Section 15380 of the CEQA Guidelines depending on the policy of the lead agency. Plants ranked 3 and 4 may be evaluated by the lead agency on a case-by-case basis to determine significance thresholds under CEQA.

Volunteers with the East Bay Chapter of the CNPS (EB-CNPS) have compiled observations from many sources as well as direct in-the-field surveys, and used this information to evaluate which species are rare or threatened locally, but possibly more common elsewhere. This compilation is published by the EB-CNPS in *Rare, Unusual and Significant Plants of Alameda and Contra Costa Counties*¹¹⁵ and can be accessed through the Calflora website.¹¹⁶ Locally rare or unusual plant species (ranked A1, A2, or A1x) are protected by CEQA in sections 15380 or 15125(a) which address species of local concern and place special emphasis on environmental resources that are rare or unique to a region. Thus they may be considered in local land planning and management issues. The locally rare or unusual plant ranks are:

¹¹¹ Williams, D. F, 1986. *Mammalian Species of Special Concern in California*. California Department of Fish and Game, Sacramento.

¹¹² Shuford, W. D., and T. Gardali, editors, 2008, op. cit.

¹¹³ Jennings, M. R., and M. P. Hayes, 1994. *Amphibian and Reptile Species of Special Concern in California*. Final report to California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova.

¹¹⁴ Moyle, P. B., et al., 1995. *Fish Species of Special Concern in California: Second Edition*. Final report to California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova. Contract No. 2128IF.

¹¹⁵ Lake, Dianne, 2010, op. cit.

¹¹⁶ Calflora, 2014. Website: www.calflora.org.

- A1 – Species known from 2 or less botanical regions in Alameda and Contra Costa Counties, either currently or historically. Protected by CEQA.
- A1x – Species previously known from Alameda or Contra Costa Counties, but now believed to be extirpated, and no longer occurring here. Protected by CEQA.
- A? – Species possibly occurring in Alameda or Contra Costa Counties, but there are questions about their identification or location.
- A2 – Species currently known from 3 to 5 regions in the two counties, or, if more, meeting other important criteria such as small populations, stressed or declining populations, small geographical range, limited or threatened habitat, etc. Protected by CEQA.
- B – A high-priority watch list: species currently known from 6 to 9 regions in the two counties, or, if more, meeting other important criteria as described above for A2. Not protected by CEQA.
- C – A second-priority watch list: species currently known from 10 to 15 regions in the two counties, but potentially threatened if certain conditions persist such as over-development, water diversions, excessive grazing, weed or insect invasions, etc. Not protected by CEQA.

f. City of Albany 1992 General Plan. The following policies that relate to biological resources were included in the 1992 General Plan.

- **Policy LU 7.1:** Designate the UC lands along the San Pablo Avenue frontage and a portion of Buchanan Street at the intersection of San Pablo for commercial retail and compatible uses. Incorporate the recommendations in the San Pablo Avenue Design Guideline and Public Improvement Study as part of this effort. In addition, consider preserving a portion of the Gill Tract, particularly those portions with important and significant stands of trees, as open space when any re-use of this area is proposed.
- **Policy LU 7.2:** Participate actively in the UC Master Plan process for redevelopment of the Gill Tract and Albany Village. Specific concerns that must be addressed in this process include but are not limited to:
 - B. Protect and enhance the creeks running through and adjacent to the U.C. Village property.
 - C. Protect and preserve the important stands of trees on the site.
- **Policy LU 9.2:** Develop policies to protect existing riparian habitat within the Creek Conservation Zone and restrict development in this Zone appropriately (see Conservation, Recreation and Open Space Element Policies).
- **Policy LU 9.3:** Develop a comprehensive street tree planting program (see Conservation, Recreation and Open Space Element Policies).
- **Policy CROS 1.1:** Develop a comprehensive program to sponsor restoration and public access improvements for Albany's creeks. Continue to implement the 1977 Albany Creek Restoration Program. As part of this effort, continue to recognize that these areas have important wildlife and vegetation values.
- **Policy CROS 1.2:** Pursue funding for the restoration of Codornices and Cerrito Creeks through the Department of Water Resources Urban Stream Restoration Program, and the Coastal Conservancy.
- **Policy CROS 1.3:** Support the efforts of the Codornices Creek Association to restore Codornices Creek.

- **Policy CROS 1.4:** Develop policies to be included in the Watercourse Combining District to protect riparian habitat within the Creek Conservation Zone where practically feasible and applicable.
- **Policy CROS 2.1:** Develop and implement a comprehensive street tree planting program for City residential and commercial streets, including establishing priorities, setting time schedules, and developing a comprehensive maintenance program.
- **Policy CROS 3.2:** Consider the potential impacts to the Monarch Butterfly roosting sites on Albany Hill within the context of developing Albany Hill Park and reviewing residential development applications on the remaining parcels.
- **Policy CROS 4.3:** Promote preservation of trees and other vegetation by requiring an inventory of significant site vegetation prior to development application review.
- **Policy CROS 4.5:** Require tree preservation measures during site design and construction.
- **Policy CROS 5.3:** Recognize the value of the Albany Mudflats Ecological Reserve, located north and west of the Buchanan Street/I-80/I-580 interchange, and protect bird feeding and nesting areas by limiting activities and preserving important habitat areas.
- **Policy CROS 7.2:** Consider the important, surrounding wildlife and vegetation resources that must be adequately protected when developing the alignment of the Bay Trail.
- **Policy CHS 1.1:** Conserve riparian and littoral habitat within the area 100 feet from creek centerline in appropriate areas both for its importance in reducing flood impacts and for its aesthetic value.

The City is in the process of replacing these policies with more comprehensive and current policies on conservation and biological resources as part of its General Plan Update, the project being analyzed by this EIR.

2. Impacts and Mitigation Measures

The following section describes potentially significant project impacts to biological resources. This section first lists the criteria by which significance is determined, followed by a discussion of impacts.

a. Criteria of Significance. Implementation of the proposed project would have a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in applicable local or regional plans, policies, regulations, or by the CDFW or USFWS;
- 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;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- Conflict with any applicable local policies or ordinances protecting biological resources, such as a tree preservation policy ordinance; and/or
- Conflict with the provision of approved local, regional, or State habitat conservation plans.

b. Project Impacts. The following sections provide an evaluation and analysis for the potential less-than-significant, significant and cumulative impacts of the Draft General Plan for each of the criteria of significance listed above.

(1) Special-Status Species. The proposed Draft General Plan would have a significant effect on the environment if it would cause a substantial adverse effect to special-status species. Forty-five special-status plants and 32 special-status animals are known to occur or potentially occur in the City. Twelve of the plant species show a low potential of occurrence based on the presence of marginal habitat resulting from degradation by human use or crowding out by invasive weeds, while ten of the plants show a moderate to high potential of occurrence based upon the presence of suitable, undisturbed habitat. Seventeen special-status animal species show a low to high potential of occurrence based upon the presence of suitable habitat. These known and potentially occurring special-status species can occur in many of the habitats in the City and could be impacted by implementation of the Draft General Plan by the direct loss of these species or the loss of their habitat. However, the Draft General Plan contains goals, policies, and actions that contribute to the protection of special-status plants and animals and their habitats.

Several Draft General Plan goals, policies, and actions ensure the protection of native plants and wildlife and their habitats, including special-status species. Draft General Plan goals and policies illustrate the City's commitment to preserving native plants and wildlife in the City. These include the following:

- **Goal LU-5: Environmentally Sensitive Areas.** Ensure that land use and planning decisions protect the quality of Albany's natural environment and conserve environmentally sensitive areas.
- **Action PROS-1.B: Creekside Master Plan Implementation.** Implement the open space management recommendations of the 2012 Creekside Master Plan, including vegetation management, trail improvements, signage and other park improvements.
- **Action PROS-1.C: Albany Hill Conservation Easements.** Work with the owner of the 11-acre vacant parcel south of Gateway Towers and land conservation organizations to develop a site plan for the property which maximizes the conservation of open space on the upper slopes and ridgeline portions of the site. Continue to work with owners of other private properties on Albany Hill to reduce fire hazards and manage the Hill's unique ecosystem.
- **Policy PROS-2.7: Resource Preservation.** Design and plan new parks in a manner that preserves and enhances natural resources, protects trees and significant topographic features, and is consistent with the sustainability principles articulated in the General Plan Conservation Element.
- **Action PROS-6.E: Community-Based Creek Restoration.** Continue to support the work of Friends of Albany Hill, Friends of Five Creeks, and other community based organizations to enhance the open space and trail potential of Codornices Creek, Cerrito Creek, Village Creek, and other natural areas in the city.
- **Goal CON-1: Protection of Natural Features.** Protect and enhance the natural features that define Albany's environment, including the waterfront, wetlands, creeks, and Albany Hill.

- **Policy CON-1.1: Reducing Environmental Impacts.** Ensure that new development is sensitive to environmental conditions and reduces impacts on the natural environment to the greatest extent feasible.
- **Policy CON-1.3: Conservation of Albany Hill.** Protect and restore natural features, native vegetation, and wildlife on Albany Hill.
- **Action CON-1.B: Watercourse Combining District.** Review the Watercourse Combining District zoning regulations to ensure that they sufficiently protect riparian habitat, reduce erosion and flooding hazards, and mitigate impacts of development on creek ecology. Compliance with all applicable state and federal regulations also shall be required for any project that could potentially impact the city's creeks.
- **Action CON-1.E: Construction Impacts on Creek Wildlife.** Ensure that large-scale construction activities adjacent to Codornices and Cerrito Creeks considers potential impacts on special-status species, including steelhead, California red-legged frog, and western pond turtle. Pre-construction surveys shall be completed as required by CEQA. In the event that such surveys determine the potential for impacts to special-status species, a protection plan shall be prepared and implemented to avoid and mitigate potential impacts, and a post-construction management plan shall be implemented to avoid future impacts
- **Policy CON-2.3: Tree Planting.** Undertake street tree planting and maintenance programs to beautify the City, create shade, provide habitat for birds and other animals, and enhance the built environment.
- **Policy CON-2.5: Albany Hill Vegetation Management.** Protect the remaining native plant communities on Albany Hill. Vegetation on the Hill should be managed in a way that allows the eucalyptus forest to co-exist with other plant communities, including oak woodland, grassland, and toyon understory.
- **Goal CON-5: Biological Resources.** Protect and enhance Albany's plant and animal habitat.
- **Policy CON-5.1: Habitat Protection.** Ensure that development decisions, vegetation management plans, and open space plans enhance wildlife diversity, avoid wildlife disruption, and protect the habitat of rare, endangered, and special status species.
- **Policy CON-5.2: Coordination with State and Federal Resource Agencies.** Work with the US Fish and Wildlife Service, the California Department of Fish and Game, the Regional Water Quality Control Board, the Bay Conservation and Development Commission, and other resource agencies to conserve and restore sensitive habitat areas. Refer local projects to these agencies for review and comment as appropriate.
- **Action CON-5.A: Environmental Review.** Use the environmental review process as a way to identify important biological resources and mitigate potentially significant impacts on plants and animals associated with future projects. The City will ensure that qualified botanists or wildlife biologists are engaged in the planning and design processes for projects with the potential to impact special-status plant and animal species, and will further require that potential impacts to these species are avoided and minimized, as required by CEQA.
- **Action CON-5.B: Habitat Restoration Plans.** Support implementation of state and federal habitat restoration plans which increase the health of San Francisco Bay and bay wetlands.
- **Action CON-5.C: Resource Conservation Overlay Zones.** As appropriate, consider the use of Resource Conservation Overlay districts to protect rare, endangered, or special status species.
- **Policy EH-2.2: Collateral Benefits.** Maximize opportunities for collateral benefits associated with vegetation management projects, such as habitat restoration, increased security, and enhanced public access.

- **Goal W-4: Waterfront Ecology.** Preserve, enhance, and restore the unique ecology of the Albany waterfront.
- **Policy W-1.1: Preservation, Conservation, and Recreation Areas.** Utilize the Eastshore State Park General Plan designations of Preservation Areas, Conservation Areas, and Recreation Areas as a framework for the planning and design of the Albany portion of the proposed McLaughlin Eastshore State Park.
- **Policy W-4.1: Native Plant Restoration.** Support the preservation and enhancement of native plant communities in the waterfront area, while also encouraging the reduction of invasive and non-native species.
- **Policy W-4.2: Upland Habitat.** Support the long-term protection of existing upland areas along the waterfront, particularly in those areas designated for conservation by the Eastshore State Park Plan. Upland wildlife habitat should also be protected within active recreation areas, consistent with the design of planned facilities.
- **Policy W-4.3: Wetland Habitat.** Support the conservation and restoration of wetlands as waterfront park improvements are constructed.
- **Policy W-4.4: Roosting Habitat.** Support efforts by the East Bay Regional Park District and resource agencies to enhance roosting habitat for shorebirds, such as turning small peninsulas into islands, and adding rock or other material to raise existing roosts above higher tides.
- **Policy W-4.5: Buffers.** Maintain or create buffer areas between trails and sensitive habitat areas where necessary to minimize wildlife disturbance.
- **Policy W-4.6: Access Restrictions.** Minimize disruption of wildlife by restricting access by people and dogs in the most environmentally sensitive areas along the shoreline, and by siting trails and other facilities appropriate distances from these areas. Signs should be posted restricting access to the most sensitive areas.
- **Action W-4.A: Botanic and Wildlife Surveys.** Ensure that qualified botanists and wildlife biologists are engaged in the planning and design processes for waterfront improvements. Environmental professionals should be retained to identify potential habitat for special status plant and animal species, and to ensure that potential impacts to these species are avoided and minimized. If unavoidable impacts are possible, measures to offset those impacts should be identified and implemented.
- **Action W-4.E: Burrowing Owl Habitat Assessment.** Support future assessments of the designated burrowing owl habitat area on the Albany Plateau. Such evaluations should be used to evaluate the degree of public access and range of future activities to be planned for this area.

Goal CON-5, Policy CON-5.1, and Policy PROS-2.7 protect and enhance the City's plant and animal habitat. Goal W-4 and Policy W-4.1 protect native plants and plant communities in the Albany waterfront and Policy CON-1.3, Policy CON-2.5, Action PROS-1.B, and Action PROS-1.C promote the protection of natural features, native vegetation and wildlife on Albany Hill. Goal LU-5 and Goal CON-1 and Policy CON-1.1 promote conservation of the City's natural environment and environmentally sensitive areas. Action W-4.A promotes undertaking plant surveys in the Albany waterfront. Action CON-5.B, Action PROS-6.E, and Policy EH-2.2 promote the restoration of habitat and Action CON-5.C promotes the protection of habitat for special-status species. Policy W-4.2 protects upland wildlife habitat and Policy W-4.3 and Policy W-4.4 protect wetland and shorebird roosting habitat along the Albany waterfront. Policy W-4.5 and Policy W-4.6 protect sensitive wildlife habitat by calling for the creation of buffers and restricting access. Policy CON-1.3 protects wildlife on Albany Hill. Policy CON-2.3 promotes the planting of trees for habitat for birds and other

animals. Policy W-1.1 and Action W-4E promote the protection of burrowing owl habitat at the Albany Plateau.

Because creeks and riparian woodlands provide important habitat for special-status wildlife as well as open space areas for public enjoyment, the preservation of these resources are promoted in the Draft General Plan. Increased public access could cause impacts to biological resources and special-status species at creeks and riparian areas. The Draft General Plan goals, policies, and actions would assist in protecting these biological resources. These goals, policies, and actions are discussed further in the subsection below entitled (2) Impacts of Riparian Habitat and Other Sensitive Natural Communities.

Numerous State, federal, and local agencies have responsibilities related to special-status species, and the Draft General Plan includes policies that promote coordination between the City and other regulatory agencies in order to preserve habitat that can support both common and special-status species within the City. These policies include Policy CON-5.2, Action CON-1.B, and Action CON-5.A, which encourage environmental review and mitigation to reduce any potential impacts related to biological resources. Action CON-5.A specifically requires environmental review to identify biological resources and mitigate potential significant impacts on plants and animals and requires wildlife and botanical surveys for projects that have the potential to impact special-status species.

Implementation of these Draft General Plan goals, policies, and actions, as well as State and federal regulatory requirements and the City's extensive site-specific review process for new developments, would reduce impacts to special-status plants and animals to a less-than-significant level.

Special-Status Plants. Several special-status plant species are known to occur or potentially occur in the City (Table IV.J-2). Impacts to these special-status plants and their habitats may result from implementation of the Draft General Plan. The goals, policies, and actions in the Draft General Plan, particularly Action CON-5.A, as cited above, would reduce the potential impacts of development to special-status plants associated with implementation of the Draft General Plan to a less than significant level.

Monarch Butterfly Winter Colonies. Monarch butterfly winter colonies have been recorded within the City. The eucalyptus, pine, and cypress groves within and adjacent to the City have the potential to support Monarch butterflies. They have been observed roosting in eucalyptus trees along Codornices Creek, in the eucalyptus groves in Dowling Park (University Village), along the railroad tracks, and in pine and eucalyptus trees east of San Pablo Avenue and south of Marin Avenue east of the University Village, and in eucalyptus groves near Albany Hill.

Potential development associated with implementation of the Draft General Plan could impact Monarch butterfly winter colonies. If a colony were to begin using any of the tree groves within the City prior to construction, then this colony could be disturbed by construction activities or eliminated by the removal of trees. Impacts on Monarch butterflies would be less than significant with implementation of the Draft General Plan goals, policies, and actions listed in this section, along with the following policy and action that address the protection of Monarch butterfly roost sites on Albany Hill and construction disturbance to roosting sites throughout Albany:

- **Policy CON-5.3: Monarch Butterfly Roosting.** Consider potential impacts to Monarch butterfly roosting sites on Albany Hill in any future applications for development, park expansion, trail construction, and fuel reduction on the Hill.

- **Action CON-5.D: Monarch Butterfly Surveys.** For construction projects that would affect eucalyptus, pine, and cypress groves during the period between September and March, require pre-construction surveys by a qualified biologist to determine if roosting Monarch butterflies are present. In the event winter colonies are identified, require appropriate measures to avoid impacts, such as postponing tree removal until butterflies have left or designating buffer areas around the affected trees.

Steelhead. Steelhead were observed in Codornices Creek in 2001 and 2003. Steelhead are not known to occur within the other creeks in the City. Several goals, policies, and actions of the proposed Draft General Plan promote the protection of creeks, riparian corridors, and sensitive wildlife habitat. Moreover, the General Plan identifies no specific development opportunities along Codornices Creek, and does not anticipate changes in land use or construction projects that would impact the creek. The City will ensure that qualified creek restoration specialists are engaged in the planning and design processes for projects with the potential to impact Codornices Creek, and will further require that potential impacts to the Creek are avoided and minimized, as required by CEQA (Action CON-1.E and Action CON-5.A). Thus the impacts on steelhead populations would be less than significant.

California Red-Legged Frog. Habitat for this species occurs along the creeks within the City, but no documented records of this species are known within the City. Implementation of the Draft General Plan may impact creeks and uplands that are inhabited by this species. However, potential impacts are mitigated by policies and actions in the General Plan and would be less than significant. Action CON-1.E specifically requires pre-construction surveys for projects that have the potential to impact creek wildlife, such as California red-legged frogs, and Action CON-5.A requires environmental review for areas with biological resources. Implementation of the policies and actions in the General Plan, as cited above, would reduce impacts to less-than-significant levels.

Western Pond Turtle. Western pond turtles have been observed in Codornices Creek and may also occur in Cerrito Creek and Middle Creek. Construction projects along or adjacent to these creeks could impact western pond turtles, if present. Implementation of policies and actions in the General Plan, especially Action CON-1.E and Action CON-5.A, would reduce impacts to western pond turtles to less-than-significant levels.

Bird Species. Implementation of the Draft General Plan could result in loss of foraging or nesting habitat of birds. Several special-status bird species may nest and/or forage within the City, including burrowing owls, white-tailed kites, Alameda song sparrows, and a number of other special-status birds. Nest sites could be lost as a result of project development if trees are removed or construction activities occur in close proximity to nest sites. The California Fish and Game Code and the federal Migratory Bird Treaty Act prohibit the disturbance or destruction of active bird nests for special-status and non-special-status bird species. Policy CON-5.5 requires compliance with state and federal regulations that protect birds and their nests and Action CON-5.A requires environmental review to protect wildlife. Implementation of the policies and actions in the General Plan, as cited above, would reduce impacts to less than significant levels.

(2) Impacts of Riparian Habitat and Other Sensitive Natural Communities. Riparian habitats are considered sensitive habitat areas and are identified as special natural communities by CDFW. Actions potentially affecting streambeds, which may include adjacent riparian areas, are regulated by the CDFW through a streambed alteration agreement under Section 1602 of the California Fish and Game Code; they may also be regulated by the Corps and the RWQCB.

Compliance with required National Pollutant Discharge Elimination System permit requirements and implementation of site-specific stormwater control plans would generally mitigate impacts on water quality. Discharges to stream channels and open-water habitat also may be regulated by the Corps or State. Discharge of fill into waters of the United States could have a significant impact.

Approximately 8 acres of riparian woodland habitat occur along Cerrito, Codornices, Middle, and Village Creeks within the City. These riparian areas provide an important corridor and habitat for special-status wildlife, such as steelhead and western pond turtle. The preservation of creeks and associated riparian habitat is promoted in the Draft General Plan as important plant and wildlife habitat and as an open space amenity. Riparian habitats can potentially be impacted by build-out of the Draft General Plan.

Draft General Plan goals, policies, and actions generally protect creeks and riparian corridors and identify habitat conservation and enhancement and development setbacks including Goal LU-5, Goal CON-1, Action CON-1.B, Action CON-2.B, PROS-6.E, Policy W-4.1, and goals/policies/actions listed below:

- **Policy LU-1.5: Open Spaces.** Provide a diverse range of open spaces to complement the urbanized areas of the City, including improved parks and playing fields, conservation areas on Albany Hill and along the shoreline, a publicly accessible waterfront, natural areas along creeks, areas for community gardens and urban agriculture, and private open spaces.
- **Policy LU-4.5: UC Village.** Recognize University of California (UC) Village as an integral part of the Albany community. Land use decisions on the University's property should be compatible with nearby uses and provide collateral benefits to Albany residents and businesses wherever feasible. Important natural features at UC Village, such as Village Creek, Codornices Creek, and significant tree stands, should be protected.
- **Policy LU-5.3: Albany's Creeks.** Maintain a Creek Conservation Zone (CCZ) along Cerritos, Codornices, and Village Creek. Protect the existing riparian habitat within the CCZ and restrict development as necessary to conserve the creek environment.
- **Policy PROS-6.8: Creek Trails.** Coordinate trail planning and improvement programs for Cerrito and Codornices Creeks with the cities of Berkeley, Richmond and El Cerrito, non-profit organizations such as Friends of Five Creeks, and appropriate county, state and federal regulatory agencies.
- **Policy CON-1.6: Respecting Natural Features.** Design new development to conserve natural landscape features, such as topography, drainage patterns, and vegetation. Avoid projects which require excessive hillside grading, rerouting of streams and drainageways, filling of wetlands, and other alterations which compromise natural resources.
- **Policy CON-1.7: Creek Restoration.** Enhance the natural characteristics of Albany's creeks and uncover and restore ("daylight") portions of creeks that have been placed in underground culverts and pipes where feasible.
- **Policy CON-1.9: Riparian Corridors.** Maintain special development regulations for areas within 100 feet of Codornices Creek, Cerrito Creek, and Village Creek which ensure that riparian and littoral habitat is conserved, flood impacts are reduced, and the creeks are enhanced for their aesthetic and ecological value. Watercourses on private property should be kept free of trash, debris, excessive vegetation, and obstacles to the flow of water.
- **Action CON-1.A: Codornices and Cerrito Creek Restoration Initiatives.** Continue collaborative efforts with community organizations, resource agencies, and adjacent cities to restore natural conditions and stabilize banks along Albany's creeks, particularly Codornices and Cerrito Creeks.

- **Action CON-1.C: Creeks at UC Village.** Work with the University of California and the developers of projects on the UC Village property to maintain undeveloped open space easements along Village Creek and along Codornices Creek, and to plan for the restoration of the creeks as adjacent properties are developed or altered.
- **Action CON-1.D: Creek Clean-Ups.** Support community-led creek clean-ups and restoration efforts.
- **Policy CON-2.1: Trees and the Environment.** Recognize the importance of trees and vegetation to improving air and water quality in the City and contributing to local efforts to reduce global climate change.
- **Action CON-2.B: Tree Preservation Requirements.** Continue to study alternatives for protecting large specimen trees and addressing tree removal and preservation issues on private property.
- **Policy CSF-6.6: Green Infrastructure.** Encourage the development of “greener” infrastructure which is less impactful on the natural environment and supports local sustainability and climate action goals. This is particularly true for storm drainage facilities, which should be designed to restore natural drainage systems and improve water quality to the greatest extent feasible.
- **Policy W-5.6: Water Quality.** Design all drainage, water, and wastewater systems to maximize the potential for environmental benefits. This should include minimizing the area of impervious surface, using drought-tolerant landscaping, and incorporating bio-swales and other features which minimize water runoff. In areas where landscape irrigation is required, water systems should be designed for the eventual delivery of reclaimed water.
- **Action W-5.A: Shoreline Improvement Projects.** Support EBRPD in the shoreline restoration and improvement project for the south shore of the Albany Neck.

Draft General Plan Goals LU-5, CON-1, Policies LU-1.5, LU-4.5, LU-5.3, CON-1.6, CON-1.7, CON-1.9, and Actions CON-1.A, CON-1.B, CON-1.C, and CON-1.D promote the protection or restoration of riparian corridors and creeks. Policy CON-1.9 protects riparian corridors through development setbacks. Policy CON-1.7 and Action CON-1.A would restore natural habitats adjacent to creeks. Policies, goals, and actions in the Draft General Plan also protect the water quality of creeks and wetlands, which is important for sustaining special-status species. Policy W-5.6, Policy CSF-6.6, Policy CON-2.1, and Action W-5.A promote the protection of water quality through shoreline improvements, tree planting, and green infrastructure.

Increased public access could impact biological resources and special-status species along the creeks and riparian habitats. However, Draft General Plan goals, policies, and actions would protect biological resources from public access impacts as described above.

Other sensitive natural communities within the City are the tidal mudflat and salt marsh. These communities are located along the northern shoreline of the Albany waterfront. Trail construction and/or maintenance within or adjacent to riparian habitat (Policy CON-1.8, Policy PROS-6.8, Policy PROS-6.B, Action PROS-6.C, Action PROS-6.D, Action PROS-6.E) and salt marsh (Action PROS-6.A) could result in ground disturbance that leaves areas of bare soil susceptible to colonization by non-native invasive plant species. Invasive plants can have a variety of impacts on native plant communities, including alteration of ecosystem processes and displacement of native species. If not controlled, invasive plants could encroach into native riparian habitat and tidal marshes within the City, reducing their habitat value for native plants and wildlife, including special-status species. Policy W-4.1 aims to contain the spread of invasive species in the waterfront area.

A relatively recent tree preservation issue is the spread of introduced pathogens, such as sudden oak death, which can cause disease and kill certain species of trees. These pathogens are often introduced from non-native trees and shrubs from nurseries that are planted as landscaping. Action CON-2.B requires the study of alternatives for protecting large specimen trees and addresses preservation issues.

Development activities associated with implementation of the Draft General Plan may lead to direct and indirect impacts on creeks and riparian habitat and sensitive communities. However, implementation of Draft General Plan goals, policies and actions, as well as State and federal regulatory requirements and the City's extensive review process for new developments, would reduce impacts to creeks and riparian woodlands and sensitive communities to a less-than-significant level.

Given the above goals, policies, and actions, the proposed Draft General Plan will have a less-than significant impact on riparian habitat or sensitive natural communities and no additional mitigation measures are required.

(3) Invasive Plants. Invasive plant species could colonize the natural habitat of the City. Impacts to natural habitats caused from invasive plants may result from new development associated with the implementation of the Draft General Plan. Draft General Plan goals, policies, and actions require Bay-friendly, drought-tolerant landscaping including Policy CON-2.4 and Policy CON-6.9, and action and policy listed below:

- **Action CON-2.G: Native Plant Restoration.** Preserve and enhance native plant communities in the city while encouraging the control or removal of invasive and non-native species.
- **Policy PROS-3.7: Vegetation Management.** Ensure that park landscaping and maintenance practices are consistent with City policies to reduce wildfire hazards and manage vegetation. These practices should also reinforce City programs to conserve water and promote Bay-friendly landscaping, such as native, non-invasive, drought tolerant plants, and use reclaimed water for irrigation.

Implementation of policies and actions in the General Plan, as cited above, would reduce impacts to less-than-significant levels.

(4) Impacts to Federally Protected Wetlands. Open water, creeks, and wetlands, which are located within the City, provide valuable habitat to native plant and wildlife species and contribute to the maintenance of water quality. Goals, policies and actions in the Draft General Plan, including Goal W-4, Goal LU-5, Goal CON-1, Policy W-1.1, Policy W-4.3, Policy LU-1.5, Policy LU-4.5, Policy LU-5.3, Policy CON-1.1, Action W-5.A, as well as the goals/policies/actions listed below protect and promote enhancement wetlands and riparian habitats associated with wetlands and include the following:

- **Policy LU-5.2: Albany Shoreline.** Work collaboratively with federal, state and regional agencies, key interest groups and shoreline open space advocates, and Albany residents to enhance the recreational, ecological, and open space value of the Albany waterfront.
- **Goal PROS-1: Open Space Protection.** Preserve and enhance open space in Albany for natural resource protection, food production, hazard prevention and abatement, aesthetics, and recreation.

- **Policy PROS-1.3: Albany Waterfront.** Recognize the importance of the Albany waterfront as a multi-use open space area and a vital part of the cultural landscape of the East Bay. The City will work toward achieving the maximum feasible open space and recreational uses in the waterfront area and improved public access to and along the Albany shoreline. All future land use decisions for the area west of Interstate 80 shall be consistent with State and regional park plans, trail plans, and Bay conservation and shoreline access plans.
- **Policy CON-1.4: Albany Waterfront.** Protect and sustain the Albany waterfront and surrounding wetlands as a natural and cultural resource, a vital ecosystem, a place of scenic beauty, and a defining feature of Albany's physical environment.
- **Policy W-2.6: Water Activities.** Ensure that boating, wind-surfing, and other water-oriented activities are managed to reflect the varying levels of sensitivity of the local marine environment. Motorized boats and motorized personal watercraft should generally be prohibited throughout the entire park, and non-motorized craft (sailboards, kayaks, etc.) should be limited to areas that are specifically designated for aquatic recreation rather than preservation or conservation.
- **Policy W-4.3: Wetland Habitat.** Support the conservation and restoration of wetlands as waterfront park improvements are constructed.
- **Policy W-4.8: Marine Habitat.** Designate the most valuable marine habitat areas, including the Albany mudflats and the two sub-tidal areas at the west end of the Albany Bulb, as Aquatic Preservation or Conservation areas.
- **Action W-4.B: Albany Beach Restoration Project.** Continue to support implementation of the Albany Beach Restoration Project, including upper beach enhancement, expansion of the dune areas, seasonal wetland enhancement, landscaping with native plants and removal of invasive plants, new bioswales and stormwater management facilities, and removal of debris.
- **Action W-4.C: Lagoon Area Restoration.** Support modifications to the levees that surround the lagoon at the west end of the Albany Bulb which enhance the habitat value of the area and reduce the likelihood of disturbance by humans and land animals.
- **Goal W-5: Sustainable Shoreline.** Create a safer, more resilient shoreline that is better integrated with the Bay's hydrologic and biological systems.
- **Policy W-5.1: Balanced Objectives.** Strive for a balance between shoreline protection, waterfront access, environmental enhancement, recreation, education, and cost considerations in the planning and design of shoreline improvements.
- **Policy W-5.2: Carrying Capacity.** Ensure that the level and character of park activities is managed in a way that does not exceed the carrying capacity of park resources.
- **Policy W-5.4: Shoreline Protection.** Replace portions of the shoreline that consist of construction debris, concrete, and slag material with materials and designs that improve their long-term function and enhance their appearance.
- **Action W-6.A: Shoreline Setback.** Prohibit construction of any buildings within a 100-foot minimum of the shoreline. Consider larger setbacks where possible to expand the parkland area along the shoreline.

Policy CON-5.2 requires coordination with the State and federal resource agencies on projects related to conservation and restoration of sensitive habitat areas, such as wetlands. The goals, policies, and actions related to creeks also apply to the protection of federally protected wetlands, since all the creeks in the planning area are federally protected.

Implementation of these Draft General Plan goals, policies, and actions, as well as State and federal regulatory requirements and the City's extensive review process for new developments, would reduce impacts to federally protected wetlands to a less-than-significant level.

(5) Wildlife Movement and Wildlife Nursery Sites. Riparian corridors provide the primary movement corridors between open space areas and may provide cover as well as food and water for wide ranging wildlife species moving through otherwise unsuitable habitats. For example, deer and small mammals may use riparian corridors to move between different parts of the City. These corridors allow wildlife to access food resources and foraging areas that may be unavailable to them without the cover and security provided in the corridor. Corridors that link to the oak woodland in Albany Hill can make seasonal food resources available to wildlife such as acorn crops in oak woodlands in the fall. Mammals and birds utilize these seasonally available resources and may use corridors to reach such resources. Disruptions of movement corridors can be where a urban development may obstruct access from one open space area to another. Additionally, disruption of riparian corridors by removal of vegetation or placement of permanent structures or active recreational facilities within the corridors could impact wildlife movement corridors or nursery sites. Species that occur or may occur in the City that are particularly susceptible to such disruptions include fish, amphibians, and aquatic reptiles, such as steelhead and western pond turtle. Activities or structures, such as bridge crossings and culverts that could temporarily block passage or isolate the upper reaches of streams could impact movement corridors for these species.

The Draft General Plan promotes the establishment and protection of movement corridors for wildlife through various policies, including Policy CON-1.6, Policy CON-1.7, Policy CON-1.9, Policy CON-5.1, Goal CON-5, Policy CON-5.3, Policy CON-5.5, Action W-4.A, and the policy listed below:

- **Policy CON-5.4: Albany Mudflats Ecological Reserve.** Recognize the environmental value of the Albany Mudflats Ecological Reserve, located west of I-580 and north of Buchanan Street. Protect bird feeding and nesting areas by limiting activities in important habitat areas.

In addition to the above, several goals, policies, and actions protect creeks and riparian corridors and also would protect these habitats as movement corridors. Protection of the connections and wildlife movement corridors is essential to ensure that preserved habitat areas maintain their ecological value and are viable preserves over time. Implementation of these policies ensures that wildlife movement corridors are protected.

In preserving corridors and habitat areas as envisioned in the goals, policies, and actions of the Draft General Plan, nursery sites for native wildlife would also be preserved. Goal CON-5, Policy CON-5.1, Policy CON-5.3, Policy CON-5.4, Policy CON-5.5, and Action W-4.A of the Draft General Plan in particular promote the protection of nursery sites for wildlife. Action W-4.A promotes wildlife surveys to ensure that special-status animal species are protected. Goal CON-5, Policy CON-5.1, and Policy CON-5.4 protect wildlife habitat, including nesting habitat. Policy CON-5.5 requires compliance with State and federal regulations protecting bird nests. These regulations would require conducting pre-construction surveys for nesting birds prior to construction activities in a given area.

Implementation of these Draft General Plan goals, policies, and actions, as well as State and federal regulatory requirements and the City's extensive review process for new developments, would reduce impacts to wildlife corridors and nursery sites to a less-than-significant level.

(6) **Conformance with Local Ordinances and Policies.** Trees protected under the City's tree removal ordinance (i.e., Section 20.48 of the City's Municipal Code) are present in the City within the Hillside Development District and the Hillside Combining District, which are near Albany Hill. The ordinance protects living trees over 5 feet in height on undeveloped property in the Hillside Development District and the Hillside Combining District. An application for tree removal would need to be acquired from City's Department of Public Works prior to tree removal. In addition to this ordinance, several policies and actions in the Draft General Plan address tree removal, including:

- **Policy LU-4.5: UC Village.** Recognize University of California (UC) Village as an integral part of the Albany community. Land use decisions on the University's property should be compatible with nearby uses and provide collateral benefits to Albany residents and businesses wherever feasible. Important natural features at UC Village, such as Village Creek, Codornices Creek, and significant tree stands, should be protected.
- **Policy CON-2.1: Trees and the Environment.** Recognize the importance of trees and vegetation to improving air and water quality in the City and contributing to local efforts to reduce global climate change.
- **Policy CON-2.2: Tree Preservation.** Require preservation of mature trees during the review of development proposals and subsequent construction projects. Site design and construction plans should identify individual trees and groves of trees and include measures to protect them wherever feasible. When tree preservation is not feasible, require replacement trees and ongoing maintenance measures to avoid net loss of tree coverage.
- **Action CON-2.A: Street Tree Planting Program.** Continue implementation of a comprehensive street tree planting and maintenance program for Albany streets, including priorities, time schedules, and species selection guidelines. Seek funding through state, federal, and non-profit urban forestry programs to support increased tree planting and maintenance capacity.
- **Action CON-2.B: Tree Preservation Requirements.** Continue to study alternatives for protecting large specimen trees and addressing tree removal and preservation issues on private property.
- **Action CON-2.C: Tree Inventories.** Implement standard operating procedures requiring inventories of trees and significant site vegetation as a part of development application review.

Policy LU-4.5, Policy CON-2.1 and Policy CON-2.2 of the proposed Draft General Plan specifically address the protection of trees as an important resource. Actions under this policy include Action CON-2.A (implement a street tree planting and maintenance program), Action CON-2.B (study alternatives for protecting large specimen trees and addressing tree removal and preservation on private property), and Action CON-2.C (include inventories of trees and significant site vegetation as a part of development application review).

The City's tree ordinance and the implementation of the Draft General Plan policies and actions would reduce potential impacts to trees to a less-than-significant level.

(7) **Conformance with Approved Conservation Plans.** The City does not occur within or adjacent to any approved conservation plans. Implementation of the Draft General Plan will not impact approved conservation plans.

c. Cumulative Impacts. Implementation of the Draft General Plan, in conjunction with other development in the City, has the potential to cumulatively impact biological resources. Proposed development allowed under the Draft General Plan could adversely affect such resources during construction. Before mitigation, therefore, developments within the City, as well as other local recent and current developments, have the potential to cause adverse cumulative impacts to biological resources due to their impacts to habitat.

However, each development proposal received by the City will undergo environmental review, consistent with the City's current procedures, and would be subject to the policies and actions within the Draft General Plan. Neither the proposed Draft General Plan nor other development projects are expected to cumulatively result in significant impacts to biological resources, provided that appropriate environmental review occurs and appropriate mitigation measures, including pre-construction surveys, are implemented as a condition of development. Therefore, implementation of project-specific mitigation measures and appropriate Draft General Plan Policy CON-4.2, Action CON-1.B, and Action CON-4.A encouraging environmental review and mitigation reduce any potential cumulative impacts related to biological resources to a less-than-significant level.