

## 4.3 BIOLOGICAL RESOURCES

This section describes the existing regulatory setting and biological conditions in the vicinity of the proposed project and presents an evaluation of the impacts of development on these resources. It is based on the work of Environmental Collaborative, biological resources consultants. The Biological Resources Assessment is included as Appendix C of this EIR.

### *A. Existing Setting*

#### **1. Regulatory Setting**

State and federal agencies have a lead role in the protection of biological resources under their permit authority set forth in various statutes and regulations.

At the federal level, the US Fish and Wildlife Service (USFWS) is responsible for implementing the federal Endangered Species Act and the Migratory Bird Treaty Act. The US Army Corps of Engineers (Corps) has primary responsibility for protecting wetlands under Section 404 of the Clean Water Act.

At the State level, the California Department of Fish and Game (CDFG) is responsible for administration of the State Endangered Species Act, and for protection of streams, waterbodies, and riparian corridors through the Streambed Alteration Agreement process under Sections 1601-1606 of the California Fish and Game Code. Certification from the San Francisco Bay Regional Water Quality Control Board is also required when a proposed activity may result in discharge into navigable waters, pursuant to Section 401 of the Clean Water Act and EPA 404(b)(1) Guidelines.

The following sections summarize specific regulations that pertain to special-status species, sensitive communities and wetlands protection.

a. Special-Status Species

Special-status species<sup>1</sup> are plants and animals that are legally protected under the state and/or federal Endangered Species Acts<sup>2</sup> or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts and other essential habitat. Species with legal protection under the Endangered Species Acts often represent major constraints to development, particularly when they are wide ranging or highly sensitive to habitat disturbance and where proposed development would result in a “take”<sup>3</sup> of these species.

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<sup>1</sup> Special status species include: designated rare, threatened, or endangered and candidate species for listing by the California Department of Fish and Game (CDFG); designated threatened or endangered and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS); species considered rare or endangered under the conditions of Section 15380 of the California Environmental Quality Act Guidelines, such as those plant species identified on lists 1A, 1B and 2 in the *Inventory of Rare and Endangered Plants of California* by the California Native Plant Society (CNPS); and possibly other species which are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on list 3 in the CNPS Inventory or identified as animal "California Special Concern" (CSC) species by the CDFG.

<sup>2</sup> The federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

<sup>3</sup> “Take” as defined by the FESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" a threatened or endangered species. "Harm" is further defined by the USFWS to include the killing or harming of wildlife due to significant obstruction of essential behavior patterns (i.e., breeding, feeding, or sheltering) through significant habitat modification or degradation. The CDFG also considers the loss of listed species habitat as take, although this policy lacks statutory authority and case law support under the CESA.

b. Wetlands

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration and purification functions.

The CDFG, the Corps and California Regional Water Quality Control Boards have jurisdiction over modifications to wetlands and other “waters of the United States.” Jurisdiction of the Corps is established through provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material without a permit. Regional Water Quality Control Board jurisdiction is established through Section 401 of the Clean Water Act, which requires certification or waiver to control discharges in water quality. Jurisdictional authority of the CDFG over wetland areas is established under Sections 1601-1606 of the State Fish and Game Code, which pertains to activities that would disrupt the natural flow or alter the channel, bed or bank of any lake, river or stream.

c. Relevant Local Plans, Policies, and Ordinances

Biological resources in the City of Oakland are primarily addressed through the Oakland General Plan Open Space, Conservation and Recreation Element, Tree Protection Ordinance and Creek Protection Ordinance.

i. *City of Oakland General Plan*

The City of Oakland’s General Plan contains a number of policies related to protection of biological resources. These consist of the following policies from the Open Space, Conservation and Recreation Element:

*Policy CO-7.1 Protect native plant communities, especially oak woodlands, redwood forests, native perennial grasslands, and riparian woodlands, from the potential adverse impacts of development. Manage development in a way which prevents or manages adverse impacts to these communities.*

*Policy CO-7.2 Encourage efforts to restore native plant communities in areas where they have been compromised by development or invasive species, provided that such efforts do not increase an area's susceptibility to wildlife.*

*Policy CO-9.1 Protect rare, endangered, and threatened species by conserving and enhancing their habitat and requiring mitigation of potential adverse impacts when development occurs within habitat areas.*

*Policy CO-11.1 Protect wildlife from the hazards of urbanization, including loss of habitat and predation by domestic animals.*

*ii. Tree Protection Ordinance*

Chapter 12.36 of the City of Oakland Municipal Code identifies protected trees that require a permit for removal. Protected trees include coast live oak, which occur as saplings along the eastern edge of the site. According to the ordinance, a tree removal permit must be obtained to remove coast live oaks measuring 4 inches in diameter at breast height (dbh) or to remove any other tree measuring 9 inches dbh or larger, except Eucalyptus and Monterey Pine (*Pinus radiata*).

*iii. Creek Protection Ordinance*

Chapter 13.16 of the City of Oakland Municipal Code establishes a number of guidelines to protect Oakland's creeks by reducing and controlling storm-water pollution, preserving and enhancing creekside vegetation and wildlife, and controlling erosion and sedimentation. The ordinance includes specific measures applicable to parking lots, gas stations, industrial and commercial activities, as well as to properties that contain creeks or other watercourses. The proposed project site does not contain any creeks or water courses, nor is it adjacent to any parcels containing creeks or watercourses. The section of the Creek Protection Ordinance that is directly applicable to the proposed project is Section 13.16.100(D), which requires any person or construction contractor performing work in the city to, "at a minimum, provide filter materials at the catch basin to prevent any debris and dirt from flowing into the city's storm sewer system." Project impacts to the storm sewer system are discussed further in Chapter 4.6, Hydrology, and Chapter 4.10, Land Use.

## 2. Existing Biological Setting

Information in this section is based on findings from the report by Environmental Collaborative which is included, in its entirety, as Appendix C of this document.

### a. Background and Methodology

Biological resources associated with the project site were identified through a review of available background information and a field reconnaissance survey. Available documentation was reviewed to provide information on general resources in the area, presence of sensitive natural communities, and the distribution and habitat requirements of special-status species which have been recorded from or are suspected to occur in the project vicinity. A field reconnaissance survey was conducted by James Martin, Principal of Environmental Collaborative, on November 29, 2002 to determine the vegetation and wildlife resources, presence of any sensitive natural communities, potential for jurisdictional wetlands, and suitability of the site to support populations of special-status species.

### b. Vegetation

The site consists of a grassy hillside along the northeast side of Keller Avenue, surrounded by existing residential development. Vegetative cover is dominated by non-native ruderal grasses and forbs, such as wild oats (*Avena spp.*), ripgut brome (*Bromus diandrus*), English plantain (*Plantago lanceolata*), filaree (*Erodium sp.*), and wild radish (*Raphanus sativus*). Native species are scattered through a few locations in the grassland and include purple needlegrass (*Nasella pulchra*), California fuchsia (*Epilobium canum*), naked buckwheat (*Eriogonum nudum*), mule's ears (*Wyethia sp.*), California poppy (*Eschscholzia californica*), coyote brush (*Baccharis pilularis*) and one clump of California sagebrush (*Artemisia californica*). There are six sapling native coast live oak trees (*Quercus agrifolia*) at the southeastern end of the site. Stands of the invasive non-native sweet fennel (*Foeniculum vulgare*) and French broom (*Genista monspessulana*) are beginning to spread through the fringe of the grassland. Larger non-native pines and eucalyptus border the upslope boundary of the

site but these have been presumably planted as landscaping on the adjacent residential properties.

c. Wildlife

The sparse cover, lack of any surface water, and extent of surrounding development and human activity limits the wildlife habitat value of the site. Wildlife associated with the site are common to non-native grasslands and suburban habitat, consisting of several species of birds, Botta's pocket gopher, and mule deer. Bird species observed or suspected to use the open grasslands, shrubs, and few sapling trees on the site for foraging include scrub jay, mourning dove, brown towhee, house finch, English sparrow, and European starling. Several raptors (birds of prey) may occasionally forage through the area such as American kestrel, red-tailed hawk, and turkey vulture, but the low prey base limits the likelihood that the site provides an important source of prey for these species. No evidence of past or current bird nesting or large mammal denning activity such as den openings, signs of scat, pellets, or white-wash, or stick and debris remains from nests, was observed on the site.

d. Special-Status Species and Special Communities

Records maintained by the California Natural Diversity Data Base (CNDDDB) of the CDFG (2002) and other information sources indicate that several special-status plant and animal species have been reported from or are suspected to occur in the Oakland Hills. The CNDDDB records show a general occurrence of the federally-threatened bay checkerspot butterfly (*Euphydryas editha bayensis*) with a one-mile radius centered near the Keller Avenue interchange with I-580, which extends over the site and surrounding developed and undeveloped lands. This historic occurrence of bay checkerspot is believed to have been extirpated (eliminated from a specific location) in the 1980s as a result of habitat loss due to residential development. Suitable serpentine grassland habitat for this species is absent from the site. No other occurrences extend over the site, although several are mapped within a few miles of the site.

Special-status animal species known or suspected from the Oakland Hills include: Alameda whipsnake (*Masticophis lateralis euryxanthus*), California red-

legged frog (*Rana aurora draytonii*), Berkeley kangaroo rat (*Dipodomys heermanni berkeleyensis*), bay checkerspot butterfly (*Euphydryes editha bayensis*), callippe silverspot butterfly (*Speyeria callippe callippe*), monarch butterfly (*Danaus plexippus*), and several species of raptors and bats.

Suitable habitat for special-status animal species is absent from the site due to the extent of past grading and surrounding development, and the absence of conditions necessary to support these species. This includes absence of fresh-water marsh and riparian habitat necessary for breeding by California red-legged frog, native grassland and scrub habitat necessary to support Berkeley kangaroo rat, native serpentine grassland and larval host plant species for bay checkerspot butterfly, native grassland with larval host plant species for callippe silverspot butterfly, scrub/chaparral habitat with sunning areas and prey species necessary to support Alameda whipsnake, eucalyptus necessary to support overwintering areas for monarch butterfly; and nesting/roosting habitat for raptors and bats.

Several special-status plant species are known from the Oakland Hills, such as Diablo helianthella (*Helianthella castenea*), robust monardella (*Monardella villosa ssp globosa*), Santa Cruz tarplant (*Holocarpha macradenia*), western leatherwood (*Dirca occidentalis*), bent-flowered fiddleneck (*Amsinkia lunaris*), pallid manzanita (*Arctostaphylos pallida*), most-beautiful jewel-flower (*Streptanthus albidus ssp. peramoenus*), alkali milk-vetch (*Astragalus tener var. tener*), Persidio clarkia (*Clarkia franciscana*), and fragrant fritillary (*Fritillaria liliacea*). These species have varied legal status, and most are considered rare in California (list 1B) by the California Native Plant Society (CNPS). Table 4 lists the special-status plant species that are considered to have the greatest potential for occurrence on the site and in the surrounding Oakland Hills vicinity. The table provides a summary of each species including its name; status with regard to federal or State listing, or inclusion on CNPS lists; preferred habitat characteristics; potential for occurrence on the site; and blooming period.

TABLE 4 POTENTIAL SPECIAL STATUS SPECIES FOR OAKLAND HILLS VICINITY, ALAMEDA COUNTY

Scientific Name/ Common Name	Status	Habitat	Potential for Occurrence on Site	Blooming Period
SPECIES WITH A REMOTE POSSIBILITY OF OCCURRING ON THE PROJECT SITE				
<i>Amsinckia grandiflora</i> Large-flowered fiddleneck	Fed: Endangered State: Endangered CNPS: List 1B	Cismontane woodland, valley and foothill grassland	remote possibility	April-May
<i>Amsinckia lunaris</i> Bent-flowered fiddleneck	Fed: None State: CEQA CNPS: List 1B	Cismontane woodland, valley and foothill grassland	remote possibility	March-June
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	Fed: None State: CEQA CNPS: List 1B	Chaparral, cismontane woodland, valley and foothill grassland	remote possibility	April-June
<i>Cryptantha hooveri</i> Hoover's cryptantha	Fed: None State: CEQA CNPS: List 1B	Valley and foothill grassland (sandy)	remote possibility	April-May
<i>Erodium macrophyllum</i> Large-leaved filaree	Fed: None State: CEQA CNPS: List 2	Coastal scrub, valley and foothill grassland	remote possibility	March-May
<i>Eschscholzia rhombipetala</i> Diamond-petaled California poppy	Fed: None State: CEQA CNPS: List 1B	Valley and foothill grassland (clay)	remote possibility	March-April
<i>Fritillaria agrestis</i> Stinkbells	Fed: None State: CEQA CNPS: List 4	Chaparral, cismontane woodland, valley and foothill grassland (clay, sometimes serpen- tinite)	remote possibility	March-April
<i>Fritillaria liliacea</i> Fragrant fritillary	Fed: None State: CEQA CNPS: List 1B	Coastal prairie, coastal scrub, valley and foot- hill grassland (often serpentinite)	remote possibility	Feb.-April

Scientific Name/ Common Name	Status	Habitat	Potential for Occurrence on Site	Blooming Period
<i>Madia radiata</i> Showy madia	Fed: None State: CEQA CNPS: List 1B	Cismontane woodland, valley and foothill grassland	remote possibility	March-May
<i>Meconella oregana</i> Oregon meconella	Fed: None State: CEQA CNPS: List 1B	Cismontane woodland, valley and foothill grassland, miscellaneous habitats	remote possibility	March-April
<i>Micropus amphibolus</i> Mt. Diablo cottonweed	Fed: None State: CEQA CNPS: List 3	Broadleaved upland forest, cismontane wood- land, valley and foothill grassland	remote possibility	April-May
<i>Microseris sylvatica</i> Sylvan microseris	Fed: None State: CEQA CNPS: List 4	Cismontane woodland, valley and foothill grassland	remote possibility	March-May
SPECIES THAT ARE NOT PRESENT OR DO NOT HAVE SUITABLE HABITAT ON THE PROJECT SITE				
<i>Androsace elongata ssp. acuta</i> California androsace	Fed: None State: CEQA CNPS: List 4	Chaparral, cismontane woodland, coastal scrub	unlikely as unsuitable habitat	March-June
<i>Astragalus tener var. tener</i> Alkali milk-vetch	Fed: None State: CEQA CNPS: List 1B	Valley and foothill grassland (adobe clay), ver- nal pools (alkaline)	unlikely as unsuitable habitat	March-June
<i>Balsamorhiza macrolepis var. macrolepis</i> Big-scale balsamroot	Fed: None State: CEQA CNPS: List 1B	Cismontane woodland, valley and foothill grassland (sometimes serpentinite)	not present	March-June
<i>Blepharizonia plumosa ssp. plumosa</i> Big tarplant	Fed: None State: CEQA CNPS: List 1B	Valley and foothill grassland	not present	July-Oct.

Scientific Name/ Common Name	Status	Habitat	Potential for Occurrence on Site	Blooming Period
<i>Calochortus umbellatus</i> Oakland star-tulip	Fed: None State: CEQA CNPS: List 4	Broadleaved upland forest, chaparral, conifer forest, valley and foothill grassland	unlikely as unsuitable habitat	March-May
<i>Carex comosa</i> Bristly sedge	Fed: None State: CEQA CNPS: List 2	Coastal prairie, marshes and swamps, valley and foothill grassland	unlikely as unsuitable habitat	May-Sept
<i>Cirsium andrewsii</i> Franciscan thistle	Fed: None State: CEQA CNPS: List 1B	Broadleaved upland forest, coastal bluff scrub	unlikely as unsuitable habitat	June-July
<i>Dirca occidentalis</i> Western leatherwood	Fed: None State: CEQA CNPS: List 1B	Broadleaved upland forest, conifer forest, chaparral, riparian forest, cismontane woodland	not present	January-April
<i>Helianthella castanea</i> Mt. Diablo sunflower	Fed: None State: CEQA CNPS: List 1B	Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, valley and foothill grassland	unlikely as not observed	April-June
<i>Holocarpha macradenia</i> Santa Cruz tarplant	Fed: Threatened State: Endangered CNPS: List 1B	Coastal prairie, valley and foothill grassland	not present	June-October
<i>Juglans californica var. hindsii</i> Northern California black walnut	Fed: None State: CEQA CNPS: List 1B	Cismontane woodland, riparian forest	not present	April-May
<i>Linanthus acicularis</i> Bristly linanthus	Fed: None State: CEQA CNPS: List 4	Chaparral, cismontane woodland, coastal prairie	unlikely as unsuitable habitat	April-July
<i>Linanthus grandiflorus</i> Large-flowered linanthus	Fed: None State: CEQA CNPS: List 4	Coastal bluff scrub, closed-cone conifer forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland	unlikely as unsuitable habitat	April-July

Scientific Name/ Common Name	Status	Habitat	Potential for Occurrence on Site	Blooming Period
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris's popcorn-flower	Fed: None State: CEQA CNPS: List 1B	Chaparral, coastal prairie, coastal scrub (mesic)	unlikely as unsuitable habitat	April-June
<i>Plagiobothrys diffusus</i> San Francisco popcorn-flower	Fed: None State: Endangered CNPS: List 1B	Coastal prairie, valley and foothill grassland	unlikely as unsuitable habitat	April-June
<i>Ranunculus lobbii</i> Lobb's aquatic buttercup	Fed: None State: CEQA CNPS: List 4	Cismontane woodland, north coast conifer forest, valley and foothill grassland, vernal pools (mesic)	unlikely as unsuitable habitat	March-May

**Explanation of Status Terms**

Federal

Endangered: Required for consideration

Threatened: Required for consideration

State

Endangered: Required for consideration

Rare: Required for consideration

CEQA: Recommended for consideration under California Environmental Quality Act

CNPS (California Native Plant Society)

1A: Plants presumed extinct in California. Required for consideration

1B: Rare, threatened or endangered in California and elsewhere. Required for consideration

List 2: Plants rare, threatened or endangered in California, but more common elsewhere. Required for consideration

List 3: Plants needing more information – a review list. Recommended for consideration

List 4: Plants of limited distribution – a watch list. Recommended for consideration

The extent of past disturbance of the site from grading and the absence of suitable habitat conditions on the site limit the potential for occurrence of any special-status plant species. Conspicuous species such as western leatherwood, robust monardella, Diablo helianthella, Santa Cruz tarplant and pallid manzanita would have been visible during the field reconnaissance, but were not detected on the site. Several others, such as Persidio clarkia and most-beautiful jewel-flower, are not suspected to occur on the site due to the absence of serpentine substrate, or the lack of other suitable habitat conditions such as chaparral, forest, woodland, and mesic grassland conditions. The presence of any additional special-status species typically associated with grassland habitat is considered highly unlikely due to the predominance of non-native grasses and forbs, and disturbance over most of the site. However, there is a remote possibility that one or more species typically associated with grassland habitat could occur on the site but would have been indistinguishable from the surrounding dried grasses and forbs during the early winter field reconnaissance. An estimated twelve species, which are listed in Table 4, are considered to have a remote potential for occurrence on the site, including large flowered fiddleneck and fragrant fritillary. Although their presence on the site is considered highly unlikely, a survey during the spring and early summer months would be required to provide a conclusive determination of the absence of special-status plant species on the site.

a. Wetlands

A preliminary wetland assessment of the site was conducted during the field reconnaissance. No evidence of any jurisdictional wetlands, unvegetated other waters, or drainage channels were observed on the site. No wetlands impacts would occur.

### *B. Standards of Significance*

The proposed project would result in a significant biological impact 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 California Department of Fish and Game or U.S. Fish and Wildlife Service.
- ◆ Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the Department of Fish and Game or U.S. Fish and Wildlife Service.
- ◆ Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act , or state protected wetlands, 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.
- ◆ Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan;
- ◆ Fundamentally conflict with the City of Oakland Tree Preservation and Removal Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected trees under certain circumstances. Factors to be considered in determining significance include:
  - The number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) the protected trees to remain, with special consideration given to native trees.
  - Protected trees include the following:

- *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and *pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be Protected trees.
- ◆ Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of riparian and aquatic habitat through: (a) discharging a substantial amount of pollutants into a creek; (b) significantly modifying the natural flow of the water; (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.

### C. *Impacts and Mitigation Measures*

Development of the site would convert the existing grassland, ruderal scrub, and sapling trees on the site to residential development. Most of the site would be occupied by structures; a roadway, sidewalks, and driveways; and landscaped areas, leaving little undisturbed area for re-establishment of the existing natural cover.

#### 1. Special-Status Species

**Impact BIO-1: Grading and construction activities on the site would have the potential to harm special-status species or habitat for special-status species. (Potentially Significant)**

As discussed above, the extent of past disturbance of the site from grading and the absence of suitable habitat conditions on the site severely limit the potential for occurrence of special-status plant species. Sensitive natural community types are absent from the site, and no impacts are anticipated. The grasslands on the site are dominated by non-native species and do not have a high enough component of native species to qualify as native grasslands.

Essential habitat for special-status animal species is also absent from the site and no significant impacts are anticipated. One or more bird species of concern may occasionally fly over the site, but suitable nesting habitat and important foraging habitat is absent and no significant impacts would occur as a result of development of the site. The extent of surrounding existing development precludes movement of any special-status animal species onto the site in the future.

**Mitigation Measure BIO-1a:** A qualified botanist shall conduct detailed preconstruction surveys in spring (March and May) to confirm absence of any special-status plant species on the site. The survey shall focus on the twelve special-status plant species listed in Table 4 considered to have a remote (highly unlikely) probability of occurrence on the site. The surveys shall be completed and a report of findings shall be submitted to the City before the onset of any initial ground-disturbing activity or construction.

**Mitigation Measure BIO-1b:** If populations of any special-status plant species are encountered, the project applicant shall ensure that construction-related impacts are avoided or adequately mitigated by retaining a qualified botanist to develop and implement a Special-Status Plant Species Mitigation and Monitoring Plan. A Mitigation and Monitoring Plan shall only be required if a listed species, or those maintained on Lists 1B or 2 of the CNPS *Inventory* are encountered during the preconstruction survey. Potential impacts on any species maintained on Lists 3 and 4 of the CNPS *Inventory* would not be considered significant and no additional mitigation would be required for these species if encountered during the preconstruction survey.

The Mitigation and Monitoring Plan shall be prepared in consultation with the CDFG and shall be approved by the City prior to any initial ground-disturbing activity or construction. The Mitigation and Monitoring Plan shall be based on the status and vulnerability of the species present with avoidance of all or a majority of any populations on the site the preferred method of mitigation. Where complete or even partial avoidance of any special-status plant populations on the site is considered infeasible, options for mitigation may include a program to salvage and re-establish the population at an alternative, suitable location. Details of any salvage and habitat recreation effort shall include the following criteria and performance standards:

- ◆ Collection of seeds during the appropriate developmental stage of the plant.
- ◆ Procedures for sowing techniques appropriate to the life cycle of the plant.
- ◆ Development of a maintenance and monitoring plan specific to the environmental conditions necessary for survival of the new population. Maintenance and monitoring shall be provided for a minimum of five years to determine success of re-seeding and habitat creation, and need for additional preservation.
- ◆ Identification of funding sources by the applicant to provide implementation of the plan in consultation with the qualified plant ecologist, landscape architect, and civil engineer.
- ◆ In addition, preservation of another existing occurrence of the affected special-status plant species shall be required if monitoring indicates that the re-establishment efforts have not been successful after five years. The preservation program shall provide for permanent protection of a different existing population in Alameda County, which is equal or larger in size than that encountered on the site (minimum 1:1 replacement), through land acquisition or use of a conservation easement. Any off-site mitigation lands shall include establishment of a management endowment as necessary to provide for long-term management of the preserved population.

**Significance After Mitigation:** Less than Significant

## **2. Sensitive Natural Communities**

No wetlands, jurisdictional habitat or riparian habitat occur on the site, nor would any wetlands be directly affected by the proposed project, so no impact would occur. A Sedimentation and Erosion Control Plan would be required as part of the Grading Permit for the project, which would ensure that the potential for any off-site sedimentation impacts are adequately controlled.

## **3. Wildlife Movement**

**Impact BIO-2: Development of the site would have the potential to remove wildlife movement corridors. (Less than Significant)**

Some common ground-mobile species such as pocket gopher and fence lizard would be lost during grading and construction. Birds which utilize the site would most likely avoid the area until construction has been completed and new landscaping begins to provide replacement cover and foraging opportunities. However, the site is isolated from other undeveloped lands and lacks protective cover or other important wildlife habitat values, and does not provide a wildlife corridor, so this loss would not be considered significant. No impacts to native resident or migratory fish or wildlife would occur.

**Mitigation:** None required.

## **4. Tree Preservation and Removal Policy**

**Impact BIO-3: Although no native live oak saplings on the site would be removed as part of the project, they could be harmed by construction. (Potentially Significant)**

There are six native sapling live oaks along the upper elevations of the site, ranging in diameter from four to ten inches. All of these trees would be preserved during grading and construction and incorporated into the final land-

scaping plan. However, they could potentially be harmed by construction activities if they are not adequately protected. This would be a significant impact.

**Mitigation Measure BIO-3:** The six native sapling live oaks along the upper elevations of the site shall be preserved to the extent possible and adequate measures taken to prevent removal or damage as part of grading. The applicant shall work with a consulting arborist and with the Tree Services division of the City's Office of Parks and Recreation to create a tree protection plan. This plan shall include measures such as surveying and mapping the trunk locations and elevations of individual trees and adjusting the grading plan where feasible to preserve individual trees. Trees to be preserved shall be clearly flagged prior to any grading, and temporary construction restriction fencing installed to prevent inadvertent removal, entrance of construction equipment or storage of construction materials.

Where tree removal is unavoidable, the project applicant must apply for a tree removal permit, as required by the Tree Removal/Preservation Ordinance. This application process includes a detailed review of site plans and tree surveys by the Office of Planning and Zoning, the Office of Parks and Recreation, and the Public Works Agency. The proposed tree removal must be reviewed and approved by all relevant City offices. Any trees that are removed shall be replaced at a 3:1 ratio and incorporated into the Landscape Plan recommended in Mitigation Measure BIO-5b.

**Significance After Mitigation:** Less than Significant.

**Impact BIO-4:** The proposed project would necessitate the removal of one redwood in the median of Keller Avenue which is protected under the City's Tree Protection/Removal Ordinance. (Significant)

The project would necessitate the removal of one mature redwood tree in the median of Keller Avenue in order to create a left turn lane onto Siena Drive. This tree, which is 27 inches in diameter, would be protected by the Tree

Removal/Protection Ordinance. The Ordinance is intended to regulate tree removal and replacement by preserving certain trees, preventing unnecessary tree loss, minimizing environmental damage from improper tree removal and enforcing tree preservation regulations. In addition to protecting specific species such as coast live oak, the ordinance protects all trees measuring nine inches in diameter at breast height (dbh). Since the redwood to be removed is over nine inches in diameter, it is protected by the Ordinance, and its removal would be considered a significant impact.

**Mitigation Measure BIO-4:** The project applicant must apply for a tree removal permit for the removal of the redwood, as required by the Tree Protection/Removal Ordinance. This application process includes a detailed review of site plans and tree surveys by the City Planning Department, the Office of Parks and Recreation and the Office of Public Works. The proposed tree removal must be reviewed and approved by all relevant City offices.

**Significance After Mitigation:** Less than Significant.

**Impact BIO-5:** Grading would create suitable growing conditions for further establishment of invasive French broom on the site, which would limit habitat values unless carefully controlled. (Potentially Significant)

The Conceptual Site Plan shows extensive plantings of trees and shrubs around the structures and perimeter of the site that would provide cover for species common in suburban habitat which already frequent the site. A Final Landscape Plan has not yet been prepared for the project, but it is anticipated that the landscaping would include a minimum planting of 30 mature trees and 30 smaller trees on the site. Careful consideration of the difficult growing conditions would be necessary to ensure successful establishment of landscape plantings on graded slopes. Use of native, drought-tolerant and fire-resistant species adapted to the adverse conditions of the proposed cut slopes would improve the success of landscape efforts and may serve to re-establish some limited habitat value for common wildlife in the area. Grading would also

create suitable growing conditions for further establishment of French broom on the site, which would further limit habitat values unless carefully controlled. This would be a potentially significant impact.

**Mitigation Measure BIO-5a:** A program to remove French broom shall be incorporated into the Final Landscape Plan for the project to eliminate this species from the site and prevent its reestablishment. Graded slopes and areas disturbed as part of the project shall be monitored to prevent reestablishment and spread of broom. The removal and monitoring program shall include annual late winter removal of any rooted plants when soils are saturated, and cutting back of any remaining flowering plants in the spring before seed begins to set in late April. Monitoring and routine removal shall be provided on an annual basis for a minimum of five years to prevent reestablishment.

**Mitigation Measure BIO-5b:** A Final Landscape Plan shall be prepared by a qualified landscape architect which emphasizes the use of native, drought tolerant and fire resistant tree, shrub, and groundcover species in landscape plantings, and recognizes the difficult growing conditions created by proposed cut slopes on the site. The following requirements and restrictions shall be incorporated into the Plan.

- ◆ Unsuitable species include: blue gum (*Eucalyptus globulus*), acacia (*Acacia spp.*), pampus grass (*Cortaderia selloana*), broom (*Cytisus spp.* and *Genista spp.*), gorse (*Ulex europaeus*), bamboo (*Bambusa spp.*), giant reed (*Arundo donax*), English ivy (*Hedera helix*), German ivy (*Senecio milanioides*), and periwinkle (*Vinca sp.*).
- ◆ Suitable species include: coast live oak, California bay (*Umbellularia californica*), big leaf maple (*Acer macrophyllum*), California buckeye (*Aesculus californica*), toyon (*Heteromeles arbutifolia*), California fuchsia (*Epilobium canum*), sticky monkeyflower (*Mimulus aurantiacus*), California sagebrush (*Artemisia californica*), purple needlegrass (*Nasella pulchra*), and buckwheat (*Eriogonum fasciculatum*).

- ◆ Plantings in the vicinity of the coast live oak saplings shall follow the recommendations of the California Oak Society's *Compatible Plants Under and Around Oaks* booklet.

**Significance After Mitigation:** Less than Significant.

#### **5. Creek Protection Policy**

The proposed project site does not contain any creeks or other watercourses that would be protected under the City's Creek Protection Ordinance, nor would any creeks or watercourses be directly affected by the proposed project. Potential impacts to storm water are discussed further in Chapter 4.6, Hydrology, and Chapter 4.10, Utilities and Service Systems.

